

"The Role of it in the Field of Medicine, Use Of Computer Technology In Modern Diagnostic Methods"

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Abstract: In this article, information and communication technologies in the field of medicine, the use of computer technology in modern diagnostic methods, teaching with the help of modern information and educational technologies in the digitization of medicine, medical data, their collection, storage and use, electronic patient registration systems, health information structure, in the health organization information management systems, patient-oriented systems: telemedicine, patient monitoring systems, data processing and electronic libraries, information on the future of digital technologies in biomedicine is covered.

Key words: Medicine, information, modern diagnostic methods, education, communication technologies, healthcare, digital technologies.

Introduction: The impact of the current globalization process in the scientific and technical sphere and the rapid implementation of modern information and communication technologies and the scientific and methodical approaches to modern teaching technologies in our country at all levels of society, including medicine, are the rapid formation of professional skills, worldviews and modern knowledge of specialists in the field. is creating a foundation for their rapid and solid mastery. Information and communication technologies are the most important component of the process of using society's information resources. Today's urgent issue is solving problems such as improving the health of the population, creating a healthy child and a healthy generation. Teaching digitalization of medicine with the help of modern information and educational technologies, digital technologies in medicine, digital technologies for high-quality and equal medicine, medical data collection, storage and use, electronic patient registration systems, health information structure, information management in a health organization systems, patient-oriented systems: telemedicine, patient monitoring systems, data processing and electronic libraries, consists of building knowledge and skills about the future of digital technologies in biomedicine.

Today, news about the effective use of innovative IT technologies, which offer wide opportunities, in many areas such as education, healthcare, scientific research, transport, and sports, is increasing day by day. By applying modern IT technologies in higher medical education, high quality and results can be achieved in the system of training students for future professional activities. Taking into account the characteristics of the learners of the digital generation, it is appropriate to use different forms of IT technologies in medical professional education. Modern IT technologies help student-doctors improve their professional skills, use the latest treatment and diagnostic methods, and provide a more effective and convenient learning experience.

Comment: Fundamental reform of the healthcare system, further improvement of the quality of medical services provided to the population is an urgent issue today. Computer graphics and design is one of the fastest growing fields in the world. The fact that the main part of the created programs, videos, and designs is effectively used today in the process of using diagnostic methods of medicine is a clear proof of this. It is not an exaggeration to say that the emergence of multimedia systems has stimulated the development of information technologies and their wide application in science, education, trade, and medicine. The main goal of using computer technology in modern diagnostic

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methods is the use of MOOCs in the organization of medical education using interactive simulators in the training of mature specialists, as well as the principles of digital transformation in medicine, digital tools used in the medical process, types of educational methods, forms of educational organization, technical equipment used in the teaching process. -types of software tools, skills in using the Internet system in the educational process, and classes are being organized using public online open courses. One of the main advantages of IT technologies in medical education is the ability to use the latest treatment and diagnostic methods, which significantly improve the quality of medical education and increase the level of competence of future medical workers. In addition, IT technologies can provide more effective and convenient teaching, which is especially important for the digital generation in the context of limited time and access to education.

Increasing the level of use of computer technology in modern diagnostic methods - medical data, digital technologies in their collection, storage and use, processing of the results obtained in scientific research processes in medicine with the help of information technologies, is carried out by teaching statistical analysis through the MS Excel program. In recent years, science and technology has developed rapidly, such inventions, innovative developments, and modern technologies have been created that have taken a deep place in our lives and brought the quality of life to a completely new level. Modern technologies have become an integral part of our daily life. As a result, things that we did not even imagine before are becoming reality today, paving the way for development in all aspects of our society.

With the help of computer technologies, medical personnel store all information about the patient's visit in a database for further dynamic monitoring, use ready-made templates, standardize and algorithmize the description of cases and studies. The main goal is to create unified information networks from local (within the polyclinic) to large-scale global systems, use the Internet to access the latest medical information, establish professional relationships with colleagues in other cities and countries, and organize work using results such as sharing experience. Today, there are such inventions in the world that, although they have not yet been widely implemented, no one can guarantee that one day they will not become an integral part of people's lives, like smartphones and computers. One such invention is 3D printers that are being covered in the media these days. Its advantage is that with the help of necessary materials and software it is possible to build a house, make prostheses and implants, produce expensive souvenirs, jewelry. Prospects for the use of 3D printers in medicine are also very large. For example, prostheses made in this way allow taking into account individual aspects of the patient's body that are difficult to develop. In dentistry, 3D printers are widely used to create temporary crowns or jaw implants. Regular research is being conducted on the use of this device in other areas of medicine.

Main issues: This article shows the importance of information and communication technologies for the health sector, their importance in the decision-making process. Application of information and communication technologies in the collection, use and analysis of data in all healthcare activities - classifying problems through a database using information and communication technologies or as a basis for identifying subgroups of patients in the population. They also provide opportunities for the physician to work out what actions are needed and what additional information would help in making the most effective diagnosis, better understanding of the patient's problem, or decision making for the patient's treatment.

Conclusion: Teaching the basics of digitization of medicine using modern information educational technologies - opportunities of digital technologies in medicine, digital technologies for high-quality and equal medicine, medical data collection, storage and use, electronic patient registration systems, health information structure, in the health organization information management systems, patient-oriented systems, telemedicine, patient monitoring systems, data processing and electronic libraries, knowledge and skills development in the future of digital technologies in biomedicine. Also, the practical side of information and communication technology tools prepares the ground for their use in the educational process and the important task of creating a database and virtual stands for the educational process in the future in the educational system.



References:

1. Abdullayeva S., Maxmudova Z., Xujakulov S. TIBBIY TA'LIMDA VR TEXNOLOGIYA //Eurasian Journal of Academic Research. – 2022. – T. 2. – №. 11. – C. 1140-1144.
2. Abdusamatovich K. S., Olimjonovna T. F. Application of web applications in medicine //Eurasian Research Bulletin. – 2022. – T. 14. – C. 46-50.
3. Nabiyeva, S. S., Rustamov, A. A., Malikov, M. R., & Ne'matov, N. I. (2020). Concept of medical information. *European Journal of Molecular and Clinical Medicine*, 7(7), 602-609.
4. Malikov, M. R., Rustamov, A. A., & Ne'matov, N. I. (2020). STRATEGIES FOR DEVELOPMENT OF MEDICAL INFORMATION SYSTEMS. *Theoretical & Applied Science*, (9), 388-392.
5. Berdiyevna, A. S., & Olimjonovna, T. F. (2022). INNOVATIVE APPROACHES IN THE EDUCATION SYSTEM TO INCREASE YOUTH PARTICIPATION. *Web of Scientist: International Scientific Research Journal*, 3(3), 674-677.
6. Esirgapovich, K. A. (2022). THE EASIEST RECOMMENDATIONS FOR CREATING A WEBSITE. *Galaxy International Interdisciplinary Research Journal*, 10(2), 758-761.
7. Toxirova, F. O., Malikov, M. R., Abdullayeva, S. B., Ne'matov, N. I., & Rustamov, A. A. (2021). Reflective Approach In Organization Of Pedagogical Processes. *European Journal of Molecular & Clinical Medicine*, 7(03), 2020.
8. Ne'matov, N., & Rustamov, T. (2022). SANATORIYLAR ISHINI AVTOMATLASHTIRISH: BRON XIZMATI VA UNING STRUKTURASI. *Eurasian Journal of Academic Research*, 2(11), 763-766.
9. Ne'matov, N., & Ne'matova, N. (2022). OLIY TA'LIM TIZIMI TALABALARIGA O'ZBEK TILINI O'QITISHDA AXBOROT TEXNOLOGIYALARINING O'RNI. *Академические исследования в современной науке*, 1(19), 37-38.
10. OB Akhmedov, AS Djalilov, NI Nematov, AA Rustamov // Directions Of Standardization In Medical Informatics // Emergent: Journal of Educational Discoveries and Lifelong Learning (EJEDL), 2(2), 1-4 p. 2021
11. Ne'matov, N., & Isroilov, J. (2022). TIBBIY VEB SAYTLAR YARATISH YUTUQ VA KAMCHILIKLARI. *Zamonaviy dunyoda innovatsion tadqiqotlar: Nazariya va amaliyot*, 1(25), 162-164.
12. Ne'matov, NI. (2022). TIBBIY VEB SAYTLAR YARATISH SAMARADORLIGI. *Academic Research in Educational Sciences (ARES)* 3 (2), 118-124
13. Berdiyevna, A. S., Fazliddinovich, S. R., & Uralovich, R. N. (2022). Use of Information Technology in Improving the Quality of Education. *Eurasian Research Bulletin*, 14, 134-138. Abdullayeva, S. B., & Dosmurodova, S. S. (2022). THE ROLE OF THE FAMILY IN THE FORMATION OF VALUE DIRECTIONS IN YOUTH. *Procedia of Theoretical and Applied Sciences*, 1(1), 93-95.
14. Olimjonovna, T. F. (2023). SOCIO-HISTORICAL FOUNDATIONS OF FORMATION OF INTEREST IN THE PROFESSION AND DEVELOPMENT OF PROFESSIONAL THINKING THROUGH PEDAGOGICAL COMMUNICATION.
15. Berdiyevna, A. S., & Shokirovich, X. S. (2023). Prospective Directions of Implementation of Modern Information Technologies in Education. *Eurasian Journal of Research, Development and Innovation*, 17, 7-11.
16. Berdiyevna, A. S., Akramovna, M. M., & Olmasovna, R. P. (2023). Research in the Process of Education of Medical Students Shaping Their Abilities. *Eurasian Journal of Learning and Academic Teaching*, 17, 95-99.



17. Ismatullayevich, N. N. (2023). The role of educational websites in the development of student's higher education systems. *Eurasian Journal of Research, Development and Innovation*, 17, 17-20.
18. Ismatullayevich N. N., Ilhomovna M. Z. Automation of Sanatorium Work: Reservation Service and its Structure //Miasto Przyszłości. – 2022. – T. 29. – C. 65-67.
19. Olimjonovna T. F. Pedagogical Communication and its Role and Significance in Developing the Professional Thinking of Students //Eurasian Scientific Herald. – 2023. – T. 16. – C. 82-86.
20. Berdiyevna, A. S., Ilhomovna, M. Z., & Ogli, K. S. S. (2023). Modern methods of information exchange in polyclinic conditions. *Genius Repository*, 25, 16-20.
21. Abdullayeva, S., Maxmudova, Z., & Xo'jaqulov, S. (2023). MODERN METHODS OF INFORMATION EXCHANGE IN POLYCLINIC CONDITIONS. *Modern Science and Research*, 2(10), 304-310.
22. Махмудова, З. И., & Аббосова, Р. Р. (2023). ТЕМА: РОЛЬ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИИ В ФАРМАЦЕВТИЧЕСКОЙ ОТРОСЛИ. *Gospodarka i Innowacje.*, 33, 164-169.
23. Илхомовна, М. З., & Ражабоевна, А. Р. (2023). ТЕМА: РОЛЬ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИИ В ФАРМАЦЕВТИЧЕСКОЙ ОТРОСЛИ.
24. Maxmudova, Z. (2023). THE ROLE OF INFORMATION TECHNOLOGY IN THE PHARMACEUTICAL INDUSTRY. *International Bulletin of Engineering and Technology*, 3(3), 52-54.
25. Maxmudova, Z., Mehmonov, A., Maxsiddinova, O., & Tirkashev, A. (2023). SCIENTIFIC STUDIES SHOWING HOW MUCH PART OF THE BRAIN A PERSON USES. *Modern Science and Research*, 2(10), 960-964.
26. Tohirova, F., & Esanmurodova, D. (2024). THE IMPORTANCE, ADVANTAGES AND DISADVANTAGES OF THE MODULAR PROGRAM IN THE EDUCATIONAL SYSTEM. *Modern Science and Research*, 3(1), 789-794.
27. Olimzhanovna, T. F. (2023). Facts About the Poisonous Mammal-Loris. *Miasto Przyszłości*, 42, 592-594.
28. Elamanova, M., & Toxirova, F. (2023). FACTS ABOUT THE POISONOUS MAMMAL-LORIS. *Modern Science and Research*, 2(12), 226-229.
29. Olimjonovna, T. F. (2023). FERMENTLAR VA ULARNING INSON ORGANIZMIDAGI O'RNI.
30. Olimjanovna, T. F. (2023). ZAHARLI SUTEMIZUVCHI-LORIS HAQIDA FAKTLAR.
31. Olimjonovna, T. F., Rustamjonovna, T. P., & Zafarovna, I. S. (2023). Causes Leading to Baldness and How to Deal With Them. *Miasto Przyszłości*, 42, 216-220.
32. Abdusamatovich, K. S., & Olimjonovna, T. F. (2023). Information technologies in the economy. *Genius Repository*, 26, 30-33.
33. Olimjonovna, T. F. (2023). TELEMEDITSINA TEXNOLOGIYALARINI RIVOJLANTIRISH.
34. Olimjonovna, T. F. (2023). AXBOROT TEXNOLOGIYALARINI TA'LIM JARAYONIDA QO'LLASHNING PEDAGOGIK-PSIXOLOGIK OMILLARI.
35. Karabaev, S., & Toxirova, F. (2023). DEVELOPMENT OF TELEMEDICINE TECHNOLOGIES. *Modern Science and Research*, 2(4), 698-702.
36. Karabaev, S., & Toxirova, F. (2023). PEDAGOGICAL AND PSYCHOLOGICAL FACTORS OF USING INFORMATION TECHNOLOGIES IN THE EDUCATIONAL PROCESS. *Modern Science and Research*, 2(4), 703-707.



37. Abdusamatovich, K. S., & Olimjonovna, T. F. (2023). Information technologies in the economy. *Genius Repository*, 26, 30-33.
38. Ne'matov, N., & Sobirova, K. (2024). THE ROLE OF WEBSITES IN IMPROVING THE WORK OF MEDICAL INSTITUTIONS. *Modern Science and Research*, 3(2), 530-532.
39. Berdiyevna, A. S. (2024). AXBOROT KOMMUNIKATSIYA TEXNOLOGIYALARI VA VOSITALARIDAN TA'LIM JARAYONIDA FOYDALANISHNING ISTIQBOLLI YONALISHLARI VA KELAJAGI. BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMİY JURNALI, 4(2), 152-157.
40. Абдуллаева, С., & Раупова, Р. (2024). ТАЪЛИМ ВА ТАРБИЯ МЕТОДЛАРИ ВА ВАЗИФАЛАРИНИ ЎРГАНИШ-БЎЛАЖАК ПЕДАГОГЛАР ФАОЛИЯТИНИНГ АСОСИЙ ОМИЛИДИР. *Modern Science and Research*, 3(1), 91-97.
41. Ilhomovna, M. Z., Berdiyevna, A. S., Shaxboz o'g'li, Y. T., & Mirkobilovna, S. R. (2023). The Importance of IT Technologies in Ultrasound Examinations. *Journal of Intellectual Property and Human Rights*, 2(12), 121-125.
42. Berdievna, A. S., Sobirovich, S. O., & Ibrahimovna, N. N. (2023). Distinctive Features of the Distance Learning System in Medical Education: the Opportunity to Learn at a Convenient Time, Place and Environment. *Journal of Intellectual Property and Human Rights*, 2(12), 33-38.
43. Абдуллаева, С. Б. (2023). ТИББИЁТДА ТАЛАБАЛАРГА АХБОРОТ ТЕХНОЛОГИЯЛАРИ ВА ЖАРАЁНЛАРНИ МАТЕМАТИК МОДЕЛЛАШТИРИШ ФАН МОДУЛИНИ ЎРГАТИШДА МОТИВАЦИЯЛАРНИНГ АҲАМИЯТИ. BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMİY JURNALI, 3(12), 27-30.
44. Berdiyevna, A. S., Eshmamatovna, D. N., & Shukhratovna, D. S. (2023). THE ROLE OF ARTIFICIAL INTELLIGENCE IN MEDICAL DISEASE PREDICTION. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 3(3), 5-9.

