

The Mechanism of Application and Introduction of Digital Instruments in the Educational System

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Abstract:

This article provides information on the use of digital technologies in the health care system. The problems of developing the digital educational environment of the healthcare system and the need to improve the organizational and management mechanisms for increasing the effectiveness of its management decisions are highlighted in the article, and the ideas on the implementation of advanced digital technologies in the healthcare system and the creation of a digital healthcare platform are discussed.

Keywords: digital technologies, computer, Internet, mobile devices, sensors, electronic tools, information management, information services, digital transformation.

INTRODUCTION

To introduce a unified complex of digitalization and information systems in the healthcare sector of the Republic of Uzbekistan, reduce redundant procedures in the management process, expand the coverage of medical services to the population, increase the work efficiency of medical workers, and effectively implement digital transformation programs, business in the healthcare system based on advanced international experience optimization and simplification of processes through digitalization, as well as the development and implementation of mechanisms in this regard [1]. Today, in the healthcare system, creating an information environment that provides a wide range of educational services designed to meet the needs of consumers, as well as forming mechanisms for introducing digital technologies into educational processes and implementing them, is important in the development and management of the educational system.

When determining the priorities for the development of digital technologies in Uzbekistan, it is necessary to take into account world trends and the level of development in this field. These problems are addressed by the decision of the President of the Republic of Uzbekistan dated April

18, 2018 "On organizational measures for the rapid integration of departmental information systems and the implementation of innovative projects" No. on" Decision No. PD-3832, Decision No. PD-415 of the President of the Republic of Uzbekistan dated December 28, 2023 " On additional measures to accelerate the digitization of the healthcare system and introduce advanced digital technologies " and other regulatory legal documents is of particular importance for the implementation

LITERATURE REVIEW AND METHODS

The problems of developing the digital educational environment of the healthcare system and its impact on increasing the efficiency of management decision-making, as well as improving their organizational and management mechanisms, are some of today's requirements. At the same time, to increase the competitiveness of the educational system, it is considered appropriate to develop several scientific recommendations regarding the management of higher educational institutions through information and communication technologies. Systemic deficiencies and problems that have accumulated in the organization of health sector activities in recent years prevent the effective solution of tasks aimed at further improving the health care system of citizens. In particular:

due to the lack of a concept and strategic goals for the management and planning of the healthcare system, reforms in this area are implemented in an incomplete form, which affects the quality of medical care for the population;

there are no uniform standards in the field of electronic health care, modern software products that ensure the integration and effective management of medical services have not been introduced, and existing information systems and technologies are scattered and focused on narrow areas. During the research, based on the problem, scientific works on the use of digital technologies were briefly analyzed.

N.V. Voytlovsky, A.P. Kalinina, and I.I. Mazurova's studies show that the economic diagnosis of the enterprise's potential as a complex research tool provides information for the preparation of management decisions and the organization of control over their implementation [2]. A.S. Strinkovskaya's scientific research is based on a comparison of economic diagnostics and is aimed at the use of primary information and improvement of economic activity [3].

In addition, research on the application of digital technologies in general Conducted by M.J. Sousa, is based on the fact that digital transformation is a rapid technological innovation of computer technology to increase the efficiency of models [4].

The quality of training of specialist personnel in the higher education system and management of this process M.I. Irodov[5], Approaches and methods for evaluating the effectiveness of the management of educational institutions in the scientific research of O.S. Kakhov [6]. T.Z. Teshaboev's scientific research focused on ways to improve innovative activities in the higher education system based on information technologies and other issues of higher education management [7].

RESEARCH METHODOLOGY

The problems of improving innovative activities based on information technologies in the higher education system were clarified. Searched for troubleshooting tips. Because the quality of innovative projects implemented in the higher education system today depends on the potential of personnel, it was carried out with the help of expert evaluations as a quantitative assessment of personnel evaluation in higher education. Based on the collected data, comparative and empirical methods of economic analysis - generalization, grouping, observation, and systematic approach - were effectively used.

RESULTS

Digital technologies are the products of new activities introduced in the production, storage, transmission, and production of information in electronic form. These technologies work through computers, the internet, mobile devices, sensors, and other electronic means. The main goals of digital technologies are to provide high-quality information in a digital environment, to create uninterrupted communication between workplaces and communities, and to raise the automation of new production and work processes. Digital technology has many uses in the field of medicine. In this field, digital technologies are used in diagnostics, laboratory and medical data reading, medical monitoring and recommendations, treatment equipment updates, and professional updates. At the same time, digital technologies are used in medical analysis to implement scientific conferences and improve medical departments and treatment options. This change will help to ensure fast, quality, and appropriate medical services.

Applying advanced digital technologies to the healthcare system, creating a digital healthcare platform, introducing a database complex for treatment and prevention institutions at all levels of the industry, developing software and an electronic platform, and developing, installing and installing the necessary information programs and systems for state medical organizations. for technical support, a unified platform of republican digital healthcare has been created based on the international standard FNIR (Fast Healthcare Interoperability Resources), and the following can be done through this platform:

- medical data registries and repositories;
- information mediation services (Open API);
- protocols for communication of information structures and systems;
- National medical registers (including patients, doctors, and medical institutions, etc.);
- terminology server;
- analysis and reporting services;
- localization;
- applicable unrestricted software licenses;
- Technical support and follow up.

Innovation is becoming a key factor in the modern economy not only in increasing the efficiency of all sectors of the economy socio-social structures-education, medicine and, of course, public administration. This is an innovative way of development is the only way to build a competitive economy of the whole country.

implementation of information and communication technologies in all spheres of life is beneficial to citizens high-quality services of government agencies and at the same time reduce costs. One of these services is electronic medical service. Electronic medicine is organized and technological tools that increase the convenience and quality of medicine and provide quality use of information and communication technologies.

There are several instruments designed to synchronize data and solve practical problems to increase digital technologies in the medical field :

Data collection and analysis in medical organizations: Digital technologies are used to effectively collect and analyze data. This will be important for diagnosis, analysis of treatment plans, identification of epidemiological data, and other purposes.

Telemedicine: Medical advice and treatment can be provided at a distance through digital technologies. These systems are used to provide telemedicine services to patients.

Management of medical organizations: Digital technologies can be used in the management of hospitals. For example, electronic accounts, telemedicine systems, and other digital technologies are used to effectively store, collect, and analyze patient data.

Data Analysis Equipment: Used in digital data storage, analysis, and analysis of analyzed data. One of these instruments has been electronic medical records (EMRs) or electronic medical records (EMRs);

Imaging equipment: Equipment such as X-ray, magnetic resonance imaging (MRI), computed tomography (CT), and ultrasound imaging equipment are essential parts of formal treatment;

Production and reproduction equipment: 3D-printing equipment, bioprinters and other production technologies are actively implemented for medical purposes;

Analytical equipment: Analytical equipment adapted to biochemistry and hematology is used to analyze data from laughter

Interfacility and intersite data transfer equipment: Facilitates the transfer of medical data through telemedicine, video consultation, and email.

Mobile Medicine : Provides the ability to author information and review treatment suggestions through mobile applets and websites. As medical technology evolves, so do innovative digital instruments.

These digital technologies facilitate the exchange of information in the health sector.

CONCLUSION

As a result of the active development of the digital economy, the widespread introduction of modern information and communication technologies in all sectors and areas, first of all, in public administration, education, health, and agriculture, the following problems will be solved in the health care system:

development and timely implementation of departmental digital transformation programs that provide for the widespread introduction of information systems and resources;

creation of necessary conditions for further expansion of the provision of electronic government services through mobile devices and other forms of electronic cooperation;

creation of a medical information system (Medical information system) covering the main functions for treatment and prevention institutions;

to take measures to train employees in training courses and practical training of developed countries in order to improve their skills in digital technologies;

ensuring the information security of the departmental digital infrastructure, as well as the protection of electronic data and documents.

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