

DIGITAL TRANSFORMATION HIGHER EDUCATION IN THE CONDITIONS OF THE FORMATION OF THE DIGITAL ECONOMY IN THE REPUBLIC OF UZBEKISTAN

Pulatov Sherzod Utkurovich¹, Isroilov Jamshid Dilshodovich², Abdullaev Murod Mukhtarovich², Urinkulov Odil Naziraliyevich².

¹Tashkent University of Information technologies named after Muhammad al-Kharazmiy,

²Academy of the Ministry of Internal Affairs of the Republic of Uzbekistan.

E-mail: imronkamron17@gmail.com

Annotation. The article discusses the main theoretical issues of the curriculum improvement using digital technologies to develop students' ability to independently form knowledge, analyze and think creatively and considers the main problems associated with ensuring the requirements for the process of continuous accreditation of educational institutions of higher education in the context of digital transformation.

Keywords: digital technology, digital economy, Digital transformation, online learning, big data, block chain, virtual and augmented reality (VR), robotics, internet, Digital University.

Introduction.

The beginning of the 21st century is characterized by the breakthrough development of digital technologies, the revolution in the information space and the acceleration of the globalization of the economy. This is characterized by the active development of the information society, in which the most important role belongs to digital technologies. Digital technologies have touched various areas: social, political, economic, cultural. The complication of social structures and relations, which are increasingly based on modern digital technologies, causing exponential growth in data flows, highlights the need to form a new type of economy, the main tool of which is digital (information) technologies. It is this type of economy that is commonly referred to in modern literature as the "digital economy". [2, p.9]

The introduction of a digital service in an educational institution has led to a serious transformation of the educational process, as well as the widespread penetration of digital technologies into the educational environment of educational institutions. In the context of the rapid modernization of information flows, the leading role in shaping the digital competence of future employees belongs to the institution of education, which is designed to ensure readiness to work with a wide range of sources and carriers of information, critically comprehend it, apply it to solve personal and socially significant tasks.

The relationship of the changes taking place in universities with the process of large-scale "digitalization" of the economy is recognized by all experts of modern problems of higher education in the country. The following are

indicated as the main directions of "digitalization" of higher education (Figure-1.).

A special place among the areas of "digitalization" of higher education is occupied by the integrated information environment of the university, considered as a single set of information systems, various databases, knowledge, users, business processes of the university, as well as the active interaction of their participants [2]. To create and successfully operate such an environment, a number of basic conditions must be observed [2]:

- carrying out complex automation of both internal and external information flows;

- development and use of tools that can be used for the joint management of educational and research activities;

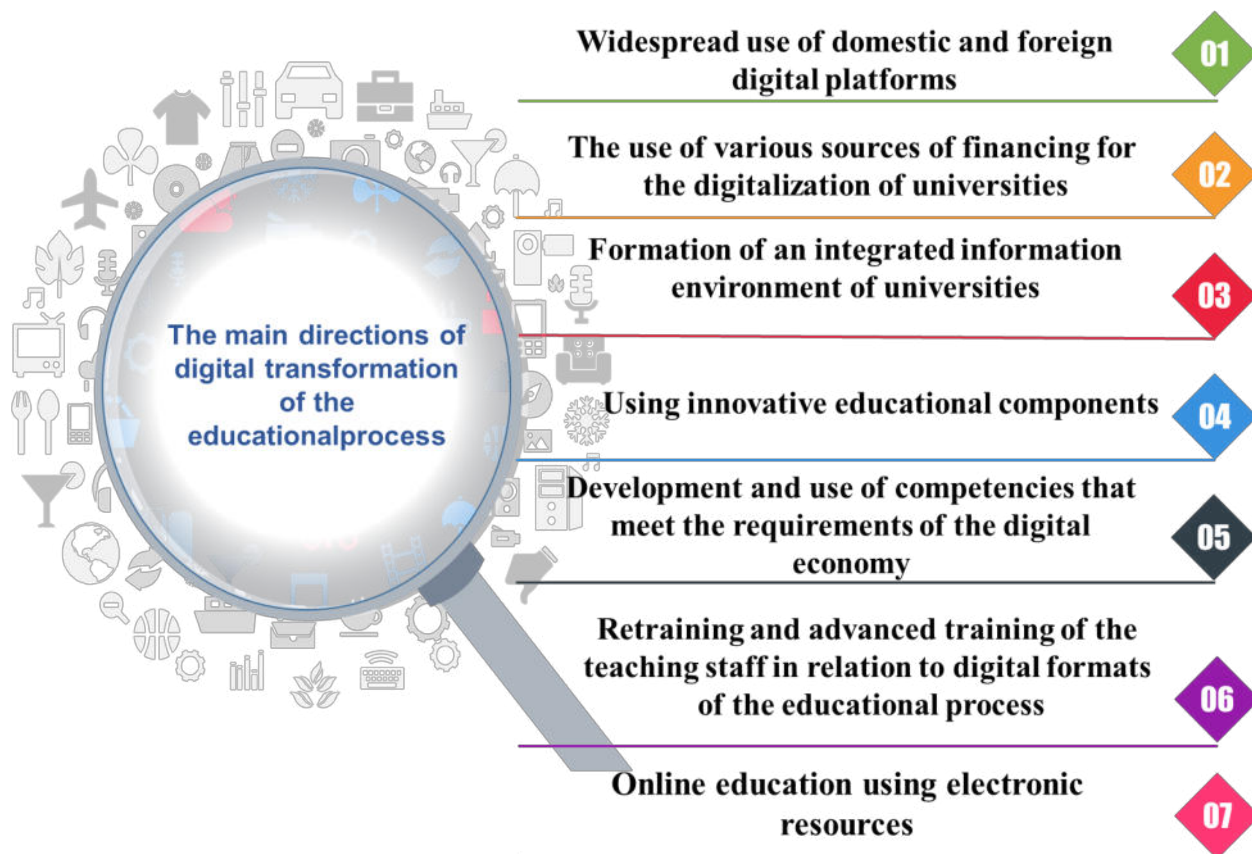
- multivariate use of the electronic scientific and educational environment for the formation of qualified personnel;

- representation of the information-analytical environment as a set of software modules. The complexity of creating an effective integrated information environment lies in the fact that it has a multidimensional nature and includes a combination [21]:

- technical resources: tablets, computers, mobile devices, interactive screens, network video systems;

- educational resources: software, educational information portals, electronic educational resources, distance learning systems, cloud resources, electronic libraries, teleconferences, webinars;

- process management resources: e-mail, distance learning, personal account in the cloud, social networks, learning forms.



Picture 1. *The main directions of digital transformation educational process*

A large block in the digital space of universities is occupied by online education. Its advantages, as a rule, include [21]:

- increasing the accessibility of education;
- expanding the choice of both the teacher and the method of presenting the material;
- expansion of forms and tools for transferring knowledge;
- socio-economic benefits. At the same time, there are also problems of the online education system [21]:
- the desire to imitate basic education, leading to a deterioration in its quality compared to the original;
- low interactivity;
- poor quality control of educational products;
- primitivization of competencies.

Education today is distinguished by the effectiveness of the educational process, taking

into account the interests of students and building training based on their abilities, building individual educational lines. It is possible to build such an educational process today through electronic educational platforms.

Digital transformation of education

The digital transformation of education is a global trend in the modernization of educational systems. Due to the continuous digitalization of society, as well as changes in the technologies themselves, new requirements for quality education appear. The priority development goals are to ensure the global competitiveness of education, the entry of an educational institution into the ranks of the world's leading countries in terms of the quality of general education.

Table 1. Global trends in the development of digital technologies

No.	Country	The name of the program	Introduced
1	Denmark	Manufacturing Academy of Denmark (MADE)	2001
2	Spain	Industry Conectada 4.0	2009
3	Austria	Industry 4.0 Oesterreich	2009
4	Hungary	IPAR4.0 National Technology Initiative	2009
5	Portugal	Industria 4.0	2009
6	Sweden	Smart Industry	2010
7	Germany	Industry 4.0	2011
8	South Korea	Creative Economy	2013

9	Singapore	Smart Nation	2014
10	Japan	Smart Japan ICT Strategy	2014
11	Kazakhstan	Digital Kazakhstan	2015
12	China	Internet Plus	2015
13	India	Digital India	2015
14	Great Britain	Digital Strategy	2017
15	Russia	Digital Economy of the Russian Federation	2017
16	Uzbekistan	Digital Uzbekistan - 2030	2020

Great Britain - Digital Strategy: The UK presents a new strategy for the development of its digital economy. The UK government has unveiled its long-awaited digital strategy to support the country's digital economy. The government said the UK's new digital strategy could boost the UK tech sector's contribution to the economy by £41.5bn by 2025 and create 678,000 additional jobs. According to the strategy, the UK digital sector contributed £151bn to the UK economy in 2019 and accounted for 9% of the national workforce. UK digital strategy: six areas for improvement. The UK's new digital strategy - the first since 2017 - focuses on six areas for improvement. These are digital foundations that include infrastructure, data and regulation; ideas and intellectual property; skills and talent; finance and investment; level up; and "strengthening Britain's place in the world". Much of the strategy echoes previous statements and highlights the government's commitment to an "innovative" approach to regulation.

Recently announced initiatives include a new Digital Skills Council which will be "a clearing house between government and industry to address the digital skills and quality gap in the UK". The Council's co-chairs are Philp and Phil Smith, former CEO of Cisco UK and current chairman of IQE, a wafer manufacturer. The government also announced a review of the "future of computing". "This government envisions a world in which almost every aspect of business and research is transformed by some aspect of computing — big, small, complex, or simple," it said. "Therefore, it is important that we consider the UK's future computing needs at this crossroads of a new generation of computing."

Germany Industry 4.0: "Industry 4.0" (Industry 4.0 (I40)) is a national strategic initiative of the German government through the Ministry of Education and Research (BMBF) and the Ministry of Economy and Energy (BMWi). It aims to advance digital manufacturing by increasing the

digitalization and interconnection of products, value chains and business models. It also aims to support research, networking of industry partners and standardization. The I40 is 10-15 years old and is based on the German government's high technology strategy 2020. The initiative was launched in 2011 by the IndustryScience Research Alliance (FU) Communications Promoter Group, which was convened and organized by the BMBF and adopted as part of the Action Plan "Strategy high technologies until 2020". The I40 has been institutionalized with Platform Industry 4.0 (Platform I40), which now serves as a central point of contact for policy makers. BMBF and BMWI have jointly provided 200 million euros in funding. Stakeholders see the I40 as a strategic measure to reinforce German technological leadership in mechanical engineering. I40 has managed to limit segregation between industry sectors, quickly bring research into mainstream practice in a fairly short period, and scale up nationally to become one of the largest industry networks of its kind. Looking ahead, some of the key challenges relate to the inclusion of SMEs and the adaptation of management and manufacturing organization at the firm level to support the actual implementation of the I40. which now serves as a central point of contact for politicians. BMBF and BMWI have jointly provided 200 million euros in funding. Stakeholders see the I40 as a strategic measure to reinforce German technological leadership in mechanical engineering. I40 has managed to limit segregation between industry sectors, quickly bring research into mainstream practice in a fairly short period, and scale up nationally to become one of the largest industry networks of its kind. Looking ahead, some of the key challenges relate to the inclusion of SMEs and the adaptation of management and manufacturing organization at the firm level to support the actual implementation of the I40. which now serves as a central point of contact for politicians. BMBF and BMWI have jointly provided 200 million euros in funding.

Stakeholders see the I40 as a strategic measure to reinforce German technological leadership in mechanical engineering. I40 has managed to limit segregation between industry sectors, quickly bring research into mainstream practice in a fairly short period, and scale up nationally to become one of the largest industry networks of its kind. Looking ahead, some of the key challenges relate to the inclusion of SMEs and the adaptation of management and manufacturing organization at the firm level to support the actual implementation of the I40. Stakeholders see the I40 as a strategic measure to reinforce German technological leadership in mechanical engineering. I40 has managed to limit segregation between industry sectors, quickly bring research into mainstream practice in a fairly short period, and scale up nationally to become one of the largest industry networks of its kind. Looking ahead, some of the key challenges relate to the inclusion of SMEs and the adaptation of management and manufacturing organization at the firm level to support the actual implementation of the I40. Stakeholders see the I40 as a strategic measure to reinforce German technological leadership in mechanical engineering. I40 has managed to limit segregation between industry sectors, quickly bring research into mainstream practice in a fairly short period, and scale up nationally to become one of the largest industry networks of its kind. Looking ahead, some of the key challenges relate to the inclusion of SMEs and the adaptation of management and manufacturing organization at the firm level to support the actual implementation of the I40. to become one of the largest industry networks of its kind. Looking ahead, some of the key challenges relate to the inclusion of SMEs and the adaptation of management and manufacturing organization at the firm level to support the actual implementation of the I40. to become one of the largest industry networks of its kind. Looking ahead, some of the key challenges relate to the inclusion of SMEs and the adaptation of management and manufacturing organization at the firm level to support the actual implementation of the I40. to become one of the largest industry networks of its kind. Looking ahead, some of the key challenges relate to the inclusion of SMEs and the adaptation of management and manufacturing organization at the firm level to support the actual implementation of the I40.

Digitization opens up key opportunities:

Approximately 15 million jobs in Germany directly or indirectly related to the production of goods, this means that the new digital evolution in industry presents key opportunities for companies. As a leading global supplier of industrial

equipment, digital industrial restructuring offers many opportunities to increase the international competitiveness of German products and improve the conditions for job creation. The government launched its High Technology Strategy in 2006 to coordinate research and innovation to remain competitive and promote technological innovation. In July 2010, the High Tech Strategy 2020 was announced to strengthen Germany's position as a leading provider of technology, science and innovation, for example in climate, mobility, security, health and As part of the Government's High Tech Strategy 2020 Action Plan of March 2012, ten Future Projects, including I40, were developed to support the High Tech Strategy. In the CDU-CSU-SPD government coalition agreement for the 2013 legislative period onwards, the I40 was considered vital to ensure technological leadership. The I40 and the growing digitalization through smart factories and IoTS are high on the government's digital agenda, with the digital economy and digital jobs high on the agenda. to support the High Technology Strategy. In the CDU-CSU-SPD government coalition agreement for the 2013 legislative period onwards, the I40 was considered vital to ensure technological leadership. The I40 and the growing digitalization through smart factories and IoTS are high on the government's digital agenda, with the digital economy and digital jobs high on the agenda. to support the High Technology Strategy. In the CDU-CSU-SPD government coalition agreement for the 2013 legislative period onwards, the I40 was considered vital to ensure technological leadership. The I40 and the growing digitalization through smart factories and IoTS are high on the government's digital agenda, with the digital economy and digital jobs high on the agenda.

Goals in support of CPS and IoTS: The I40 strategy aims to ensure the suitability of the industry for future production in Germany. It supports the integration of Cyber-Physical Systems (CPS) and the Internet of Things and Services (IoTS) in order to increase the productivity, efficiency and flexibility of manufacturing processes and hence economic growth. The purpose of the I40 platform is primarily to consolidate and strengthen Germany's leading position in the field of industrial production, as well as to promote digital structural change and lay the foundation for achieving it. In

addition, it aims to develop a coherent common understanding of Industry 4.0 across stakeholders, a dialogue to make recommendations for action and showcase how industrial production can be digitized.

Austria-Industry 4.0 :The Austrian national platform Industrie 4.0 (PI4.0) was launched in 2014 at the initiative of the Austrian Ministry of Transport, Innovation and Technology. Established in June 2015, PI4.0 went live in October 2015. The platform acts as an observatory, networking and strategic advisory body, creating working groups, strategies, priority areas, and case studies on industry 4.0 topics. The work of Industry 4.0 also aims to create synergies between national, regional and international research and development. The implementation of the Platform contributes to the digital transformation in Austria and unites the Industry 4.0 community. It is aimed at providing and creating highly innovative industrial production and increasing quality employment, strengthening competitiveness. The initiative is implemented by the association "Industry 4.0 Austria - Platform for Smart Manufacturing". The Association was established to develop cooperation between all stakeholders and promote new technological developments and innovations in the context of digitization ("Industry 4.0"). Its main mission is to find sustainable solutions to the problems faced by companies, research institutions and society at large. Unique due to the broad participation of employee associations, PI4.0 has achieved an inclusive ecosystem designed to overcome employee concerns about digitization. While the introduction of membership fees increasingly helps fund the initiative, it also poses the challenge of meeting the growing expectations of members in the context of a very diverse platform. 0 Austria is a platform for smart manufacturing.” The Association was established to develop cooperation between all stakeholders and promote new technological developments and innovations in the context of digitization ("Industry 4.0"). Its main mission is to find sustainable solutions to the problems faced by companies, research institutions and society at large. Unique due to the broad participation of employee associations, PI4.0 has achieved an inclusive ecosystem designed to overcome employee concerns about digitization. While the introduction of membership fees increasingly helps fund the initiative, it also

poses the challenge of meeting the growing expectations of members in the context of a very diverse platform. 0 Austria is a platform for smart manufacturing.” The Association was established to develop cooperation between all stakeholders and promote new technological developments and innovations in the context of digitization ("Industry 4.0"). Its main mission is to find sustainable solutions to the problems faced by companies, research institutions and society at large. Unique due to the broad participation of employee associations, PI4.0 has achieved an inclusive ecosystem designed to overcome employee concerns about digitization. While the introduction of membership fees increasingly helps fund the initiative, it also poses the challenge of meeting the growing expectations of members in the context of a very diverse platform. The Association was established to develop cooperation between all stakeholders and promote new technological developments and innovations in the context of digitization ("Industry 4.0"). Its main mission is to find sustainable solutions to the problems faced by companies, research institutions and society at large. Unique due to the broad participation of employee associations, PI4.0 has achieved an inclusive ecosystem designed to overcome employee concerns about digitization. While the introduction of membership fees increasingly helps fund the initiative, it also poses the challenge of meeting the growing expectations of members in the context of a very diverse platform. The Association was established to develop cooperation between all stakeholders and promote new technological developments and innovations in the context of digitization ("Industry 4.0"). Its main mission is to find sustainable solutions to the problems faced by companies, research institutions and society at large. Unique due to the broad participation of employee associations, PI4.0 has achieved an inclusive ecosystem designed to overcome employee concerns about digitization. While the introduction of membership fees increasingly helps fund the initiative, it also poses the challenge of meeting the growing expectations of members in the context of a very diverse platform.

Russia - Digital Economy of the Russian Federation:As part of the implementation of Decrees of the President of the Russian Federation dated May 7, 2018 No. 204 “On the national goals and strategic objectives of the development of the

Russian Federation for the period up to 2024” and dated July 21, 2020 No. 474 “On the national development goals of the Russian Federation for the period up to 2030 year”, including in order to solve the problem of ensuring the accelerated introduction of digital technologies in the economy and social sphere, the Government of the Russian Federation formed the national program “Digital Economy of the Russian Federation” approved by the minutes of the meeting of the Presidium of the Council under the President of the Russian Federation for Strategic Development and National Projects dated June 4, 2019 No. 7.

The National Program "Digital Economy of the Russian Federation" includes the following federal projects:

- "Regulatory regulation of the digital environment"
- "Regulatory regulation of the digital environment"
- "Personnel for the digital economy"
- "Information infrastructure"
- "Information Security"
- "Digital Technologies"
- "Digital Public Administration"
- "Artificial intelligence"
- "Ensuring Internet access through the development of satellite communications"
- "Development of personnel potential of the IT industry"

Management system for the implementation of the national program "Digital Economy of the Russian Federation" The management system was approved by Decree of the Government of the Russian Federation dated March 2, 2019 No. 234 “On the management system for the implementation of the national program “Digital Economy of the Russian Federation”.

China - Internet Plus: The State Council of the People's Republic of China on Saturday unveiled the development plan for the "Internet Plus" strategy aimed at introducing Internet technologies to traditional industries. The strategy was first mentioned by State Council Premier Li Keqiang in March as one way to boost economic growth. As conceived by the creators, "Internet Plus" should integrate mobile and cloud technologies, the concept of the Internet of Things (Internet of Things) and technologies for processing large amounts of information into

modern production. In this way, it is planned to help Chinese Internet companies enter the global market and achieve the healthy development of e-commerce, the industrial network development industry, as well as Internet banking. The implementation of the strategy in production will raise the industry to a new stage of development, creating more opportunities for entrepreneurship, innovation, agriculture, energy industry, finance, logistics, e-commerce, biology, artificial intelligence technologies, transport and services. By 2025, Internet Plus will become the new economic model, as well as the main driver of economic and social development and innovation. The government will fully support the introduction of innovative platforms and networks in enterprises. Industry standards will serve to integrate the Internet and industry and protect intellectual property rights. Following the Belt and Road Initiative, the new strategy will also support Chinese internet companies' entry into the global market. The government of the country will provide tax incentives to companies operating in accordance with the points of the new strategy, and will monitor the implementation of the new plan at the regional level. agriculture, energy industry, finance, logistics, e-commerce, biology, artificial intelligence technologies, transport and services. By 2025, Internet Plus will become the new economic model, as well as the main driver of economic and social development and innovation. The government will fully support the introduction of innovative platforms and networks in enterprises. Industry standards will serve to integrate the Internet and industry and protect

intellectual property rights. Following the Belt and Road Initiative, the new strategy will also support Chinese internet companies' entry into the global market. The government of the country will provide tax incentives to companies operating in accordance with the points of the new strategy, and will monitor the implementation of the new plan at the regional level.

The new action plan has become one of the economic reforms carried out by the Chinese authorities. In 2014, the Chinese economy showed the lowest growth rate in 24 years, which amounted to 7.4%. China is the largest user of the Internet and mobile phones. At the end of last year, 649 million people in China used the Internet, and 557 million went online through mobile technology.

South Korea - Creative economy: Over the past half century, the Republic of South Korea has achieved economic transformation that many would consider impossible. In just 50 years, it has gone from a poor war-torn country to a world-class high-tech economy, a full member of the OECD (Organization for Economic Co-operation and Development, OECD), known for its consumer electronics such as smartphones or flat-screen TVs, and the production of such goods, like cars, ships, oil and gas platforms (Korea is currently building the world's largest semi-submersible drilling platform). Based on this success, Korea is preparing for the next phase. In 2013, President Park Geun-hye announced her intention to lead the country towards a creative economy. The plan that marks that "South Korea's economy has reached the limit of the 'catch-up economy' strategy that has stimulated economic growth over the past 40 years" aims to create a new development model based on innovation and entrepreneurship. For a country that has achieved success through the production of goods rather than the development of innovation, this represents an important change in the development model. Korea has good reason to believe that it can achieve this goal. Its citizens are among the most active Internet users in the world (84% of the population in 2012), the country has developed high-speed broadband Internet (22 Mbps), and South Korean youth in 2012 topped the list of countries in the OECD PISA test in the field of creative problem solving approach. The country is also one of the most favorable for starting a business. According to the World Bank, it takes only 5 days to register and open a business,

compared to the OECD average of 10 days. Korea is ripe for a knowledge economy. However, the path to transformation has a number of difficulties, the most notable of which is the situation in concentrated markets. Korea's success, which saw GDP per capita rise from 10% in US dollars in 1962 to 50% in 2012, has been driven by a relatively small number of big top global brands such as Samsung, LG and Hyundai. Known as chaebols (chaebol, "chae" means wealth or prosperity in Korean, and "pöl" means group or clan), these companies supplanted R&D organizations. According to the Korea Industrial Technology Association, large companies account for 74% of private investment in R&D, while small and medium enterprises and venture capital firms account for only 13% and 11%, respectively. In addition, small and medium-sized enterprises face difficulties in attracting talent, as graduates are mainly aimed at working in chaebols, as well as in accessing funding (as of 2012, funding for the early stages of Korean startups was practically non-existent). Another important task will be to introduce universities into the process of innovation development. Despite high PISA test scores (students aged 15-16), Korean universities underperform in terms of rankings and productivity compared to the OECD average. In 2013, only one Korean university entered the world top 50 rankings, and,

The Korean government has taken important steps to address these issues. Recent measures include financial support and tax incentives from start-up to completion of the project (for example, the establishment of a \$489 million crowdfunding system), the creation of a stock exchange for start-ups (Korea New Exchange, Korea New Exchange), and institutional reforms such as the creation of the Ministry of Science, ICT and Future Planning (Ministry of Science, ICT and Future Planning) to promote and coordinate the implementation of development policies. The private sector is also active. In cooperation with government agencies (60% state capital, 40% private), a financial mechanism of 1 billion US dollars is being created to promote, support and accompany start-ups in the field of innovation, using part of the funds to protect the intellectual property rights of small and medium-sized enterprises. Against the backdrop of government efforts to equalize the share of venture capital between national and international players, foreign

investment begins to flow. Silicon Valley-based \$1.3 billion venture capital firm BlueRun, for example, opened a branch in Korea. There has also been an influx of innovation from large international companies such as GE, which now creates some innovative products in Korea (many product creators from the Quirky platform - a platform for innovative inventions - from GE Korea). Silicon Valley-based \$1.3 billion venture capital firm BlueRun, for example, opened a branch in Korea. There has also been an influx of innovation from large international companies such as GE, which now creates some innovative products in Korea (many product creators from the Quirky platform - a platform for innovative

inventions - from GE Korea). Silicon Valley-based \$1.3 billion venture capital firm BlueRun, for example, opened a branch in Korea. There has also been an influx of innovation from large international companies such as GE, which now creates some innovative products in Korea (many product creators from the Quirky platform - a platform for innovative inventions - from GE Korea).

The essence of the digital transformation of education is to effectively and flexibly use the latest information technologies in all educational content - between employees within an educational organization, between teachers and students, etc.

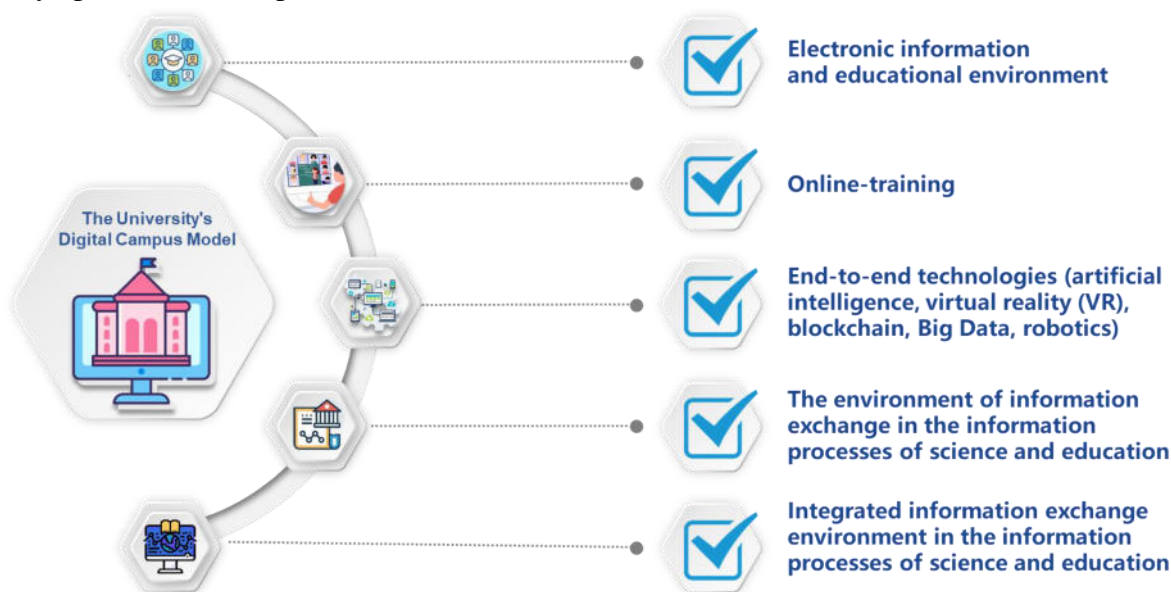


Figure 2. Actual directions of digital transformation of education

Studies concerning issues of digitalization of education, made it possible to identify the following topical issues control digital transformer education. (Fig-1)

1. Creation by educational institutions of an electronic information and educational environment - information and educational resources, computer equipment, information, telecommunication technologies, software, organizational and methodological support for the provision of educational services that meet the requirements in the new conditions of the digital economy. [11, 12].

2. Model promotion digital university campus (Figure 2). This model includes technical infrastructure (computer network with equipment wireless access, computer equipment, telecommunication and communication devices,

presentation and video equipment, mobile devices for accessing digital resources, control and management systems access to resources, alarm systems and video surveillance); information infrastructure (digital resources and services of the corporate information environment); a single attribute for access to university resources in the form of personal identification cards, the university portal itself, to the parking lot, to the library, to digital resources from anywhere on the campus, etc.

3. Online learning - using end-to-end technologies. End-to-end technologies are technologies that ensuring the creation of high-tech products and services for solving educational problems. "which simultaneously cover through the Internet.

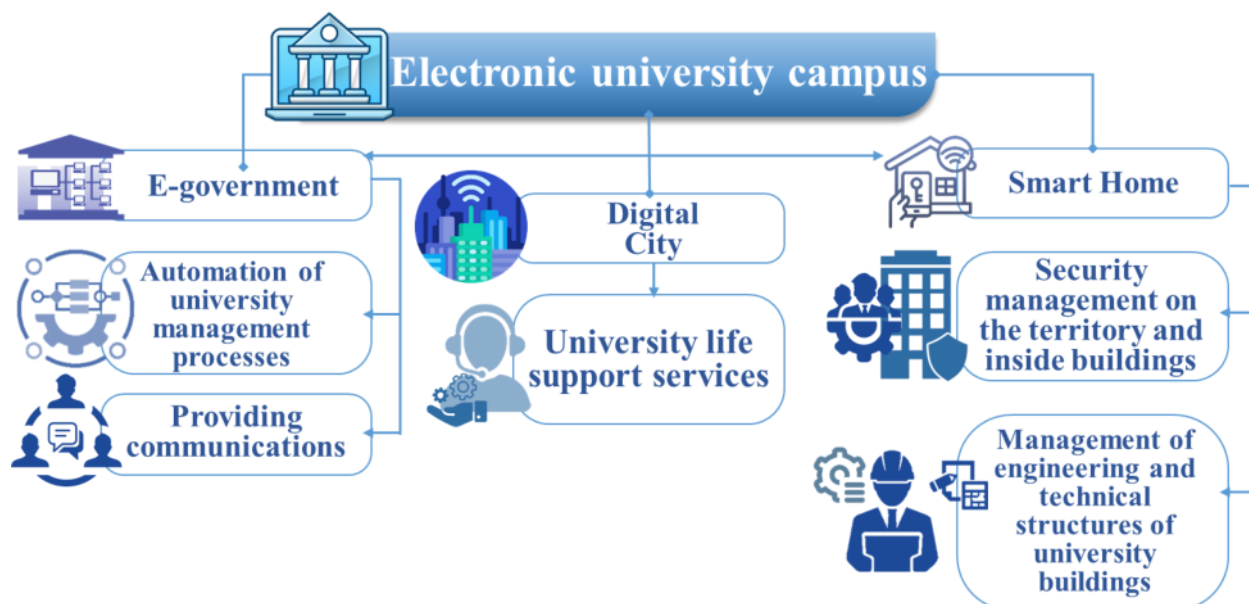


Figure 3 Model of the digital campus of the university[3,p.34]

There is already a consensus in the scientific literature regarding the use of such technologies in practice. As advanced technologies in the content and means of modern education, we can distinguish:

- Internet of things (remote access training laboratories; remote laboratory stands);
- additive manufacturing (3D printers in educational workshops; 3D modeling (in the disciplines of computer science, mathematics); manufacturing of robot parts, technical devices in additional education for students);
- artificial intelligence AI, machine learning and robotics (the use of chatbots in the educational process for consulting, testing and designing individual educational routes for students; the use of presence robots in distance learning);
- big data, blockchain and cloud computing (creating a secure portfolio of students and teachers; fixing the formation of educational and professional competencies; using cloud technologies in the educational process);
- virtual and augmented reality (use in the educational process of simulation laboratory stands and laboratory installations with elements of augmented reality, virtual laboratories, simulators, course components based on the use of virtual and augmented reality capabilities).

The use of technologies such as cloud technologies, big data technologies, network technologies, first of all, transform education through unlimited access to resources anywhere and at any time, through the possibility of

collaboration and intensive communication in the global space.

Development of higher education in the context of the formation of a digital economy in the Republic of Uzbekistan

In the Republic of Uzbekistan, the development of higher education in the context of the formation of a digital economy is given close attention. This is evidenced by the adoption of a number of government documents.

In particular, on October 5, 2020, the Decree of the President of the Republic of Uzbekistan No. UP-6079 was adopted "On the approval of the strategy "Digital Uzbekistan-2030" and measures for its effective implementation" [1], which emphasizes that without the development of digital infrastructure and raising the level of knowledge in the field of digital technologies, the further development of the country is impossible. In addition, the digital development of industries and spheres of the national economy requires the availability of qualified personnel.

Over the past three years, the educational process in Uzbekistan has undergone great changes.

The digitalization of higher education processes is based on the creation of a modern educational institution based on digital technologies.

Areas of use of digital technologies in higher education

- Admission system for GTZ applicants;
- Master's Degree Admission System;

- Translation and restoration of education and 2 - admission system;
- QR - diploma system;
- HEMIS - Higher Education Process Management Information System;
- LMS-Moodle - an electronic platform for managing the process of higher education;

One of the large-scale works in this direction is the digital university project.

The main tasks of the digital university project:

- Ensuring openness and transparency of the university;
- Automation of educational, scientific, managerial and financial processes in the higher education system;
- Preventing bureaucratic barriers in the higher education system and reducing financial costs;
- Ensuring continuity between the university, student and employers, etc.

Conclusion. Thus, it can be concluded that The quality of education and training has become one of the most pressing problems in the world today. Higher education has a significant impact on the socio-economic development of the country. The development of the education system, leading to an increase in the number of highly qualified specialists, contributes to economic growth. All developed countries have invested heavily in education. The introduction of digital technologies in the education system will play a big role in modernizing the country's education system. Significant work has been done in this regard in our country. FROM It should be noted that the development of the digital transformation of the educational sphere of the Republic of Uzbekistan as a whole is due to a number of factors. The first is the introduction of a credit-modular system. The regional factors include the specifics of the local labor market, the peculiarities of the personnel potential of universities, and the rather deep differentiation of universities in terms of the level of competitiveness in the educational services market.

Literature

1. Decree of the President of the Republic of Uzbekistan dated October 5, 2020 No. UP-6079 "On approval of the Digital Uzbekistan-2030 strategy and measures for its effective implementation" // Narodnoe slovo. 2020.
2. UR Khamdamov, AI Abdullaev, JB Elov. Conceptual Model of the Education Management Information System for Higher Education Institutions // International Journal of Advanced Trends in Computer Science and Engineering. Volume 9, No.5, September – October 2020. India. – p.7295-7300.
3. Begalov B.A., Zhukovskaya I.E. Methodological foundations of the influence of information and communication technologies on the development of the national economy. Monograph. Tashkent: IQTISODIYOT, 2018. 178 p.
4. M.A. Abramov, M. Farnik. Digitalization of education in the context of the digital divide. Vocational education in the modern world. T. 9. 4. S. 3167–3175. 2019.
5. Zhukovskaya I.E. Innovative aspects of improving management processes in a higher educational institution based on the use of modern information and communication technologies // Open Education. 2016. No. 4. P. 17–22.
6. Decree of the President of the Republic of Uzbekistan "On measures for the further development of the higher education system" dated April 20, 2017 No. 1111-2909 No. 18, art. 313, no. 19, art. 335, no. 24, art. 490, No. 37, Art. 982). [Electronic resource]. Access mode: <https://www.lex.uz>.
7. Bataev A. V. E-learning as a condition for improving the quality of training of engineering and economic personnel // Planning and providing training for the industrial and economic complex of the region. 2017. Vol. 1.
8. Glotova M. Yu., Samokhvalova E. A. Individual educational trajectories based on remote support systems for the educational process on the example of LMS Moodle // Science and School. 2015. No. 5.
9. Rabinovich P. D., Zavedensky K. E., Kushnir M. E. et al. Digital transformation of education: from changing the means to the development of activities. Informatika i obrazovanie. 2020. No. 5 (314).

10. Allen TD, Golden TD, Shockley KM How Effective Is Telecommuting? Assessing the Status of Our Scientific Findings // *Psychological Science in the Public Interest*. 2015. Vol. 16. Issue 2.
11. Firebaugh G. Seven rules for social research. Princeton: Princeton University Press, 2008
12. Hoeven C., Zoonen W. Flexible Work Designs and Employee Well-being: Examining the Effects of Resources and Demands // *New Technology, Work and Employment*. 2015. Vol. 30. Issue 3.
13. Selim HM Critical success factors for e-learning acceptance: Confirmatory factor models // *Computers & Education*. 2007 Vol. 49 Issue 2
14. S. Pulatov, U. T. Aliev and J. D. Isroilov, "Energy harvesters wireless charging technology," *2017 International Conference on Information Science and Communications Technologies (ICISCT)*, Tashkent, Uzbekistan, 2017, pp. 1-3, doi: 10.1109/ICISCT.2017.8188566.
15. J. D. Isroilov, "Linearization spectral characteristics through passage by means of akusto-optical reconstructed filters," *2016 International Conference on Information Science and Communications Technologies (ICISCT)*, Tashkent, Uzbekistan, 2016, pp. 1-2, doi: 10.1109/ICISCT.2016.7777386.
16. Dilmurod, D., Khujamatov, K., Norkobilov, S., & Jamshid, I. (2021). Features of Using the Energy-Saving LEACH Protocol to Control the Temperature of Stored Cotton Piles via a Wireless Network of Sensors. *International Journal of Discoveries and Innovations in Applied Sciences*, 1(5), 278-283.
17. D. A. Davronbekov, U. T. Aliev, S. U. Pulatov, J. D. Isroilov and F. X. Fayzullaev, "Features of Technologies for Transmission of Radio and Television in 4G / 5G Networks," *2021 International Conference on Information Science and Communications Technologies (ICISCT)*, Tashkent, Uzbekistan, 2021, pp. 1-5, doi: 10.1109/ICISCT52966.2021.9670182.
18. Davronbekov, D., Alimdjanov, X., Isroilov, J., Norkobilov, S., & Axmedov, B. (2021). Analysis of Features of Wireless Sensor Networks. *InterConf*.
19. D. A. Davronbekov, U. T. Aliev, J. D. Isroilov, X. F. Alimdjanov and B. I. Akhmedov, "Integrated Solutions Energy Harvesting Systems," *2020 International Conference on Information Science and Communications Technologies (ICISCT)*, Tashkent, Uzbekistan, 2020, pp. 01-04, doi: 10.1109/ICISCT50599.2020.9351518.
20. Davronbekov D. A., Sultonova M. O., Isroilov J. D. IMEI system for protection of mobile terminals // *Muhammad al-Xorazmiy avlodlari*. – 2018. – №. 3 (5). – C. 94-97.