

On the Need to Implement Innovative and Digital Technologies in Universities

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ABSTRACT: The article discusses the implementation of innovative technologies in the educational process on the example of universities in the digital economy, the creation of the Digital Economy Laboratory and the introduction of new technologies to further improve the quality of educational processes at universities.

KEYWORDS: digital technologies, "University 4" model, "digital laboratory", innovations in education.

INTRODUCTION

In the 21st century, the quality of education is becoming a decisive factor in the development of states and regions. In the developed countries of the world, such as the USA, France, Germany, Japan, Korea, etc., there is a constant improvement in the quality of education, the introduction of digital technologies and advanced innovative technologies in education, and the transition to self-learning. financing of universities, students and teachers through scientific laboratories. Funds are allocated for the participation of teachers and students in scientific research and joint projects, for the creation of funds for their financing, all measures are taken to improve the quality of students' preparation for research and the acquisition of practical skills. According to the Decree of the President of the Republic of Uzbekistan dated October 8, 2019, PF 8 5847 "On approval of the Concept for the development of the higher education system of the Republic of Uzbekistan until 2030", it is planned to gradually introduce the education reform and modernize it in the country [1]. In Uzbekistan, the University 3.0 model is currently a model for increasing the level of improving the quality of education, the commercialization of education, science, innovation and research. Measures are being taken for a gradual transition to the introduction of the "University 4.0" model by the country's leading higher educational institutions in Uzbekistan in the future. In addition, great attention is paid to the introduction of digital technologies and artificial intelligence in

the educational process and the gradual transition to self-supporting higher educational institutions of the country.

During the period of rapid development of digital technologies in Uzbekistan, the widespread use of digital technologies in education, the use of existing opportunities and the potential of higher educational institutions, the involvement of teachers, students and researchers in this process through the creation of scientific laboratories and technology parks. Universities will need to move to patenting scientific developments and their implementation in production. It is expedient to create scientific laboratories and technoparks at universities in order to encourage students and scientists to conduct research and development. It will also be necessary to use the experience of advanced foreign countries in this area and implement joint projects with them. Scientists of higher educational institutions of the CIS countries should cooperate between universities and other international universities and scientific organizations in this field. It is advisable to use the funds of foreign funds and grants in scientific research and joint development. For example, since 2018, Uzbekistan has been using World Bank funds to support cutting-edge projects aimed at introducing innovations in higher education.

Research Methodology

The word "innovation" was first introduced into scientific research by the Austro-American scientist J. Schumpeter, who defined innovation as an innovation that significantly increases production efficiency and it is like a functioning system" [2]. There are many scientific studies on the problems of innovation, in one of which the American scientist B. Twiss interprets innovation as a process of changes associated with the introduction of this innovation in the social or material environment in which its life cycle takes place [3]. B. Twiss describes innovation in his study as "a process by which an invention or a new idea acquires economic content." Polish scientist, M. Huchek classifies innovation as a combination of technical and natural science materials [4]. Russian scientist A.I. Prigozhin and other scientists consider innovation as a complex process that includes the production, implementation and commercialization of new consumer values, such as goods, equipment and technologies, and organizational forms [5]. According to the definition of the Hungarian scientist B. Santo, innovation is a socio-economic process that leads to the creation of the best products and technologies in accordance with their characteristics through the practical use of ideas and inventions. Ultimately, this brings economic benefits, and its appearance on the market can bring additional income [6]. Based on the above, it can be said that innovation consists of developments and processes that serve to significantly increase the effectiveness of new inventions, ideas and production, and research and development will be required to create them. This research and development requires some investment in this area and the availability of scientists and researchers. The expansion of research and development in universities with the participation of scientists and students can improve the role of universities and the effectiveness of training specialists within its walls.

Research methods

To study the role and significance of innovation in the development of the global digital economy, the methods of scientific abstraction, logical thinking, comparative analysis, monographic research, research in dynamics, grouping, comparison and data analysis were used.

Based on the above, it can be said that innovations based on technologies of the digital economy consist of developments and processes that serve to significantly increase the effectiveness of new inventions, ideas and production, and research and development will be required to create them. This research and development requires some investment in this area. New inventions, ideas, proposals, research and development play a key role in the development of universities and improve the efficiency of the educational process in general.

Research results

Most of the leading universities in developed countries have many laboratories "Digital Economy", "Artificial Intelligence", "Financial Analysis" and others, where students can conduct their research using the latest technologies and software, solve modern financial and economic problems, conduct research, develop know-how and other research. The results obtained by universities can be patented and commercialized, applied in production and companies. In these laboratories, future professionals will learn how to analyze companies from a financial point of view using digital technologies, predict the growth of company revenues using modern econometric models and programs, conduct marketing analysis and many other tasks. By participating in research students become mature professionals in the process of receiving education. Students participating in projects are constantly engaged in research for various companies in collaboration with their mentors, practice conducting various financial and marketing research on a contract basis. Thus, they have a high level of education and training, they are actively involved in several research and contract jobs during their studies at universities, thanks to which they gain a lot of experience and skills related to their future activities. Upon graduation, students become ready-made professionals, and there is a great demand for such specialists from various companies. Improving the qualifications of future students and the formation of specialists from them through the creation of such laboratories is an urgent problem today. Therefore, the world's leading universities are introducing a new form of education "University 4", which is directed. In Uzbekistan, the President of the country adopted the Digital Uzbekistan 2030 Program for the transition to digital technologies and the country's digital economy. Industry-specific digitalization and digital development programs have been approved. All these works require the training of highly qualified personnel in the digital economy in the country. Therefore, in the leading universities of the country, measures are being taken to expand the training of specialists in the digital economy, improve the skills of specialists employed in this area and other measures for its development. Some leading universities are organizing digital economy and transformation laboratories. The organization of digital and financial laboratories, the involvement of talented scientists, researchers and students in the processes performed in them is very important in the implementation of the "University 4" program, which will provide additional funding to universities, and will also allow future graduates to become mature specialists in their specialty. Universities will need to pay special attention to the development of the digital economy, research and innovation, along with the educational process in a highly competitive environment (Figure 1). In the future, it will be necessary to plan for the transition to a digital university system.

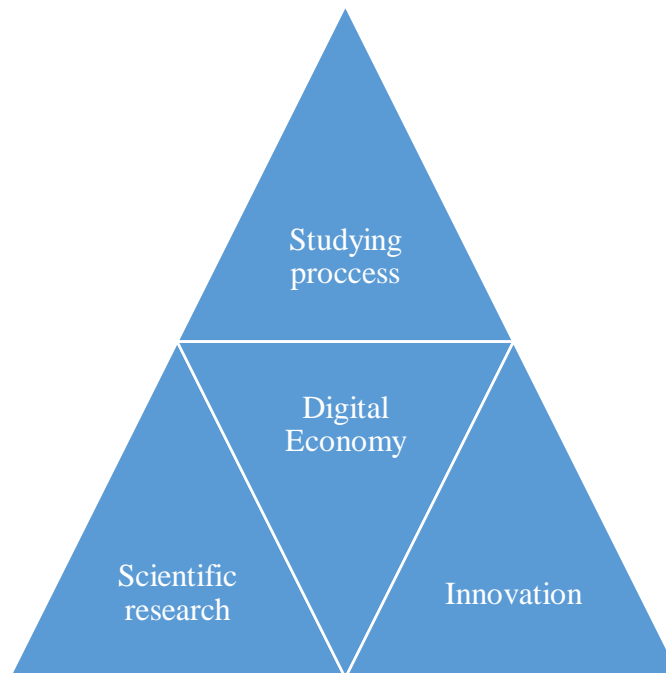


Figure 1 University strategy in the digital economy

The global pandemic of the new coronavirus infection, which is spreading around the world, has also changed the education system. Many schoolchildren and students around the world have switched to distance education as a necessary measure. The contagion has opened opportunities for universities to move towards digital learning, organizing digital universities in the future.

Digital universities are the adaptation of digital technologies to the needs of traditional education using new tools and methods that allow distance learning for students in the future. To do this, it will be necessary to develop the learning process at universities, restructure curricula, and change the approach to organizing learning. It is necessary to pay attention not only to the requirements for the specialty, but also to the student himself, his personal needs and opportunities. Every year, the boundaries between the digital and traditional universities are narrowing, but the role of the teacher does not decrease, on the contrary, the teacher acquires new skills and masters new roles along with the entire system.

Conclusions and offers

Digital universities can be viewed not as a separate new organization, but as part of a traditional university system that operates in a new digital form and creates a digital environment focused on creating new opportunities for all.

At the same time, the use of new technologies by universities makes it possible to form a more individual approach, since the education system based on the processing of big data makes it possible to take into account the interests of not only the student, but also everyone. An important role in this is played by the use of "big data warehouses", "cloud technologies", "artificial intelligence" and other digital technologies.

A large data warehouse plays an important role in collecting, storing, analyzing and applying information about various learning processes in university management, guiding students and

teachers to meet their needs, reorganizing the educational process and modernizing educational formats.

Students enter information about their results, presentations and speeches, projects in a special form on the university platform, leave comments, and their topics are objectively evaluated by professors and teachers. All this makes it possible to draw up an individual educational program for each student, ensuring openness, transparency and efficiency of the educational process.

The digital university provides students with openness not only to programs, but also to educational content, and the new digital platform allows for an objective assessment of knowledge and skills. It also helps students to develop creatively.

Enhances the ability of digital universities to adopt technologies that support and reshape student-teacher interactions, as well as offer online courses, video conferencing, and webinar formats.

Currently, the "Digital Transformation Laboratory", created at the Department of Digital Economy and Information Technology of the Tashkent State Economic University, is aimed at studying similar problems, developing and implementing technologies for the implementation of various digital technologies with the participation of teachers and students. Research is being carried out in the field of expanding research and conducting joint research in this area with developed universities in the world.

Literature

1. <https://lex.uz/ru/docs/4545887>
2. Schumpeter J. Theory of Economic Development: A Study of Entrepreneurial Profits, Capital, Credit and the Circumstances Cycle. –M.: Progress, 1982
3. Twiss B. Management of scientific and technical innovations. –M.: Economics, 1989.
4. Husek M. Innovations in enterprises and their implementation. –M.: Luch, 1992.
5. Prigozhin A.I., Innovation: incentives and prospects. - M.: Politizdat, 1998
6. Santo B. Innovation as a means of economic development. –M.: Progress, 1990.
7. www.wikipedia.ru .
8. www.kun.uz .