



**THE FUTURE OF UZBEKISTAN: HOW THE HUMANITIES AND THE
DIGITAL ECONOMY WILL CHANGE THE COUNTRY**

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Annotation: In the context of the rapid development of the digital economy of Uzbekistan, the importance of the humanities is increasing. In addition to technical skills, the market requires professionals with a deep understanding of the social, cultural, and ethical aspects of digital technologies. The article analyzes the impact of humanitarian disciplines on the training of personnel for the digital economy, provides statistical data and real examples. Educational initiatives and projects that form a new generation of specialists are considered. The findings prove that the sustainable development of the digital economy is possible only with the synergy of technologies and humanitarian knowledge.

Keywords: Digital economy, humanities, education, IT sector, UX/UI design, artificial intelligence, digital ethics, sociology of technology, machine translation, digital literacy, interdisciplinary knowledge, innovations in education, digital culture, technology startups, digital security, humanities in IT.

Introduction:

Uzbekistan's digital economy is experiencing rapid growth. According to the Ministry of Digital Development, the contribution of the IT sector to the country's economy increased from 2.2% in 2020 to 3.5% in 2024, and further growth is expected to reach 7-9% by 2030. However, for the successful development of digital technologies, social, cultural and ethical aspects must be taken into account. This is where the importance of the humanities becomes apparent. In countries such as the United States and Germany, universities are already integrating humanities into IT education. In Uzbekistan, this process is at the initial stage, which requires a systematic approach.

Humanities in the Digital Economy:

Sociology and psychology in UX/UI design: For digital products to be successful, they need to be user-friendly and understandable. In Uzbekistan, companies such as PayMe and Uzum are actively hiring specialists in the field of UX/UI design with education in psychology and sociology. Studies show that 74% of users uninstall apps if they are inconvenient to use (according to IT-Park Uzbekistan). Psychology plays a key role in creating user experience (UX). For example, a study by the

Academy of Sciences of Uzbekistan in 2023 showed that 82% of mobile app users in the country prefer interfaces with a minimalistic design and clear navigation. This highlights the need to involve cognitive psychologists in the development of digital services. Additional research shows that companies that use behavioral psychology techniques in the development of digital solutions increase user engagement by 40% and reduce customer churn by 25%. In this regard, in 2024, the first faculty of digital psychology was opened at Tashkent State University.

Higher Education Reform and Humanities Integration:

Since 2023, Uzbekistan has been undergoing a large-scale reform of higher education aimed at including humanitarian disciplines in technical programs. An important aspect of this reform is the introduction of courses in digital ethics, sociology of digital technologies and law in universities, which reflects the relevance of the humanities in a digital society. An example is the project "Digital Ethics in the IT Sphere", implemented with the support of the Ministry of Higher and Secondary Special Education of Uzbekistan. In 2023, Tashkent State Technical University launched a bachelor's degree program combining courses in programming and digital ethics. This initiative responds to the market need for specialists capable of developing not only functional, but also ethically sound digital solutions.

The Digital Future of Uzbekistan and the Contribution of the Humanities:

The national program "Digital Uzbekistan - 2030" set the vector for the development of the country's digital economy, paying special attention to the role of the humanities. The government seeks to digitize all key industries, which requires the training of specialists with not only technical, but also humanitarian knowledge. In 2024, the first training centers were opened, where experts are trained who are able to apply humanitarian approaches in the creation of digital products. An example of successful implementation is the "Digital Literacy for All" project, within the framework of which more than a million citizens have improved their digital skills in two years. Knowledge from fields such as linguistics, ethics and sociology was actively used in this project.

Linguistics and Artificial Intelligence Development:

Successful localization of digital products and the development of machine translation require in-depth knowledge of languages. In 2023, MyUz introduced a neural network for automatic translation into Uzbek, developed with the participation of linguists from the National University of Uzbekistan.

In addition to machine translation, linguists are actively involved in the creation of chatbots, voice assistants, and text analysis systems. For example, in 2024, the startup AIUz developed a natural language processing (NLP) system for the Uzbek language, which significantly improved the quality of translation and analysis of large amounts of text. The company is now negotiating with international investors to expand the project. The development of voice technologies requires an understanding of the dialects and phonetic features of the Uzbek language. In 2023, the AI Research Uzbekistan laboratory, together with Yandex, launched a project to create the first full-fledged voice model in the Uzbek language.

Ethics and Law in the Digital Age:

The development of artificial intelligence requires specialists in the field of digital law. In 2022, Uzbekistan adopted laws on the protection of personal data, which led to the need to train lawyers who understand cybersecurity. As a result, the number of digital-related legal startups has grown by 40% over the past two years. In 2024, the government of Uzbekistan introduced mandatory licensing for IT companies working with personal data. This increased user confidence in digital platforms, which is confirmed by a 35% increase in users of local fintech services. Training of a new generation of IT specialists. In 2023, IT-Park and Inha University launched projects aimed at integrating the humanities into IT education. As part of

these projects, students of technical specialties are now required to study disciplines such as "Ethics of Artificial Intelligence". In 2024, more than 500 students completed these programs, and by 2025, the number of students is expected to increase to 2000. In addition, "hybrid education" is actively developing, combining programming courses with philosophy and ethics. This allows graduates to not only master technical skills but also develop the ability to analyze the impact of technology on society.

Government initiatives in the field of digital education

Within the framework of the national strategy "Digital Uzbekistan - 2030", projects are being implemented to develop STEAM education, combining technical and humanitarian sciences. Digital competence centers are being created to train specialists who are able to work at the intersection of various disciplines. In 2024, the Government of Uzbekistan signed cooperation agreements with the world's leading universities, including the Massachusetts Institute of Technology (MIT) and the University of Oxford. The purpose of cooperation is to adapt educational programs to the requirements of the digital economy. In 2025, it is planned to launch joint educational programs focused on interdisciplinary research in the field of digital humanities.

Digital platforms and their social impact

In Uzbekistan, digital platforms have a significant impact on society. An example of this is the electronic payment and financial services platform Click. In 2023, Click implemented an artificial intelligence system to improve financial services by analyzing user behavior. For the successful operation of this system, it was necessary to involve specialists from sociology and psychology in order to better understand the needs and preferences of various groups of users, taking into account their age and social status, and to make the interface as convenient as possible.

Particular attention is paid to ethical aspects, in particular the protection of users' personal data. To do this, experts in digital ethics and law participate in the projects to prevent information leaks and manipulations. This interdisciplinary approach contributes to the creation of digital ecosystems that not only evolve technologically, but also ensure the safety of users.

Introduction of the "Talaba" platform and integration of the humanities

In 2023, the educational project "Talaba" was launched, which is a platform for preparing students for work in the digital economy. The uniqueness of the project lies in the combination of technical and humanitarian disciplines within a single curriculum. Students study subjects such as digital ethics, philosophy of technology, and fundamentals of psychology, sociology, and economics. A vivid example of the successful implementation of the project was the introduction of a course on digital psychology. This course teaches students to understand user behavior in digital environments and to develop products that meet ethical standards and security requirements. In 2023, more than 500 students completed the course, 70% of whom successfully found employment in leading technology companies such as Uzum and PayMe.

The impact of the humanities on IT education and its consequences:

The development of modern technologies, especially artificial intelligence (AI), presents new challenges for society. In Uzbekistan, as in the rest of the world, AI is actively being integrated into various sectors such as fintech, healthcare, and education. However, this progress raises questions regarding ethics and human rights protection. In 2023, the government of Uzbekistan began developing a National Artificial Intelligence Strategy, with a particular focus on ethical principles for AI use. The goal of the strategy is not only to support the growth of the IT sector but also to ensure a responsible approach to the development and application of new technologies that takes into account the interests of society. Achieving these goals requires specialists with both deep technical knowledge and an understanding of

the social and cultural implications of technology. In this context, the humanities play a key role in helping to create safe and ethical digital solutions that reflect the needs and interests of all citizens.

Impact on the development of digital entrepreneurship:

It is expected that over the next five years, Uzbekistan will become one of the leaders in Central Asia in the number of digital entrepreneurs. Programs aimed at integrating the humanities into the education of startup founders and entrepreneurs (for example, “IT Startups with a Humanities Focus”) can help create more sustainable and socially oriented businesses. Since 2023, the number of startups in Uzbekistan has grown by 25%, with 15% of them having a humanities orientation. In 2024, as part of a government initiative to train and retrain specialists, more than 10,000 IT professionals completed training. The program included the study of ethical aspects of digital technologies, legal issues in IT, as well as sociology and psychology. A positive outcome was a 40% increase in user satisfaction with digital platforms due to improved user experience (UX/UI). A World Bank study (2023) predicts that the implementation of new technologies in Uzbekistan will create about 100,000 digital jobs by 2030. For the successful development of this sector, it is critically important to train specialists who possess both technical knowledge and an understanding of the humanities. It is expected that demand for such specialists will grow by 25–30% over the next five years.

Conclusion

The digital economy requires not only technical skills but also a deep understanding of the humanities. The growing demand in Uzbekistan for specialists with interdisciplinary education highlights the importance of the humanities in the digital sphere. Research shows that companies combining technical and humanities approaches achieve better results. For example, a McKinsey study (2023) shows that such companies respond to market changes 35% more effectively.

For the sustainable development of the digital economy, Uzbekistan must:

1. Develop specialized educational programs that combine IT and humanities disciplines.
2. Support national research in the field of digital humanities.
3. Provide state support for projects aimed at integrating humanities knowledge into the IT sector.

The future of the digital economy depends on the integration of the humanities into educational programs and business strategies. The implementation of interdisciplinary approaches will enable Uzbekistan to reach a new level of technological and socio-economic development.

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