

**DIGITAL SECURITY PROBLEMS AND WAYS TO ENSURING IT***Artikova Shokhida Ilyasovna**Docent of Department of digital economy,  
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**Annotation.** In the modern world, digital security plays a key role in ensuring the protection of data, information systems and cyber infrastructure. In Uzbekistan, as in other countries, with the development of digital technologies, the risks associated with cyber threats, data leaks, fraud and unauthorized access to information are growing. In this article, we consider the main problems of digital security in Uzbekistan, analyze existing threats and assess the measures taken to prevent them. We pay special attention to legislative initiatives, international cooperation and modern technologies for information protection.

**Keywords:** digital security, cyber threats, cyber attacks, data protection, cyber fraud, digital safety, international cooperation.

**Introduction.** In recent years, Uzbekistan has been actively moving towards digitalization, introducing modern technologies into various areas of the economy and social life. However, the rapid development of digital technologies is accompanied by an increase in cyber threats and requires increased attention to digital security issues.

In response to these challenges, Uzbekistan has adopted important legislative initiatives aimed at strengthening digital security:

- Law of the Republic of Uzbekistan No. ZRU-964 dated September 20, 2024 introduced amendments and additions to existing regulations in order to strengthen information security in the activities of credit and non-bank credit organizations, as well as in the e-government system. This law is aimed at preventing offenses committed using information and communication technologies<sup>1</sup>.
- Law of the Republic of Uzbekistan No. ZRU-1003 dated November 21, 2024 provides for the improvement of the system of working with digital evidence, strengthening guarantees for the protection of the rights and legitimate interests of citizens and organizations. Amendments have been made to the laws "On Notaries", "On Arbitration Courts" and "On Forensic Examination", establishing the procedure for the examination and study of digital evidence<sup>2</sup>.

In addition, within the framework of the Digital Uzbekistan 2030 program, special attention is paid to cyber hygiene issues as the basis of legal culture in a digital society. This

<sup>1</sup> [https://lex.uz/docs/7108725?utm\\_source=](https://lex.uz/docs/7108725?utm_source=)

<sup>2</sup> [https://nrm.uz/contentf?doc=764958\\_zakon\\_respubliki\\_uzbekistan\\_ot\\_21\\_11\\_2024\\_g\\_n\\_zru-1003\\_o\\_vnese\\_nii\\_izmeneniy\\_i\\_dopolneniy\\_v\\_nekotorye\\_zakonodatelnye\\_aktvy\\_respubliki\\_uzbekistan\\_napravlennyh\\_na\\_overshenstvovanie\\_sistemy\\_raboty\\_s\\_cifrovymi\\_dokazatelstvami\\_%28prinyat\\_zakonodatelnoy\\_palatoy\\_27\\_08\\_2024\\_g\\_odobren\\_senatom\\_24\\_10\\_2024\\_g\\_%29&products=1\\_vse\\_zakonodatelstvo\\_uzbekistana&utm\\_source=](https://nrm.uz/contentf?doc=764958_zakon_respubliki_uzbekistan_ot_21_11_2024_g_n_zru-1003_o_vnese_nii_izmeneniy_i_dopolneniy_v_nekotorye_zakonodatelnye_aktvy_respubliki_uzbekistan_napravlennyh_na_overshenstvovanie_sistemy_raboty_s_cifrovymi_dokazatelstvami_%28prinyat_zakonodatelnoy_palatoy_27_08_2024_g_odobren_senatom_24_10_2024_g_%29&products=1_vse_zakonodatelstvo_uzbekistana&utm_source=)

emphasizes the need to improve the digital literacy of the population to ensure a sustainable digital environment.<sup>3</sup>

Thus, Uzbekistan is taking significant steps to ensure digital security by adapting the legislative framework and introducing practices aimed at protecting the country's information space.

**Analyses and findings.** Cybersecurity is a system of measures and technologies aimed at protecting digital data, computer systems and networks from threats, attacks and unauthorized access. It covers the protection of personal data, financial information, government and corporate networks, and information systems.

Cyber infrastructure includes a set of technological solutions and systems that ensure the operation of the Internet, cloud services, databases, servers, telecommunications networks and other digital objects. It is the basis for the functioning of all digital services and requires reliable protection.

As technology advances, cyber threats such as viruses, phishing, account hacks, data leaks, and attacks on government and corporate systems are on the rise. Digital security is essential for:

- protection of users' personal data;
- preventing financial losses for companies and organizations;
- ensuring the uninterrupted operation of critical systems (banking, medical, government);
- preventing industrial and government espionage.

Cybernetics, as a science of information management and processing, plays a key role in the development of digital security. It helps develop intelligent security systems, analyze threats, and predict attacks using artificial intelligence and machine learning.

Digital security covers several levels of protection:

1. **Technical measures**– antivirus software, intrusion detection systems, data encryption.
2. **Organizational measures**– security policies, staff training, access control.
3. **Legislative measures**– regulations governing the storage and protection of data.

Effective digital security not only prevents attacks, but also minimizes their consequences, ensuring the reliable operation of all digital systems.

In the context of rapid digitalization of the economy and society, Uzbekistan faces a number of serious challenges in the field of digital security. The growth in the use of information and communication technologies is accompanied by an increase in cyber threats, which requires the adoption of effective measures to protect the national cyber infrastructure.

According to the National Cybersecurity Index (NCIS) 2023, Uzbekistan ranked 94th out of 176 countries, down six spots from the previous year. The decline in the ranking indicates the need to strengthen cybersecurity measures.

In 2023, the public sector was the most vulnerable to cyberattacks, accounting for 15% of all successful attacks.

In November 2023, the Ministry of Foreign Affairs of Uzbekistan was attacked using the SugarGh0st malware, highlighting the relevance of threats to government institutions.

In response to growing cyber threats, Uzbekistan has adopted a number of legal acts:

Resolution of the President of the Republic of Uzbekistan No. PP-167 dated May 31, 2023 approved the "Regulation on the procedure for ensuring cybersecurity of critical

<sup>3</sup> [https://library-tsul.uz/ru/kibergigiena-kak-osnova-pravovoj-kultury-v-czifrovom-obshhestve/?utm\\_source=](https://library-tsul.uz/ru/kibergigiena-kak-osnova-pravovoj-kultury-v-czifrovom-obshhestve/?utm_source=)

information infrastructure facilities." The document defines a set of measures to prevent cybersecurity incidents and protect critical information systems<sup>4</sup>.

Resolution of the President of the Republic of Uzbekistan No. PP-381 dated November 30, 2023 is aimed at strengthening the protection of the rights of consumers of digital products and combating offenses committed through digital technologies. The resolution emphasizes the importance of ensuring the security of digital services and products to protect the interests of citizens<sup>5</sup>.

In November 2023, the Strategy for the Development of the Communications Industry until 2035 was approved, which provides for:

- Transition to certified information security tools.
- Development of a state center for detection and elimination of consequences of computer attacks.
- Creation of a unified system of protection against DDoS attacks.
- Conducting regular training programs for employees of public and private organizations on cybersecurity issues.
- Adaptation of the regulatory framework to new types of cyber threats and ensuring its compliance with international standards.
- Active participation in global cybersecurity initiatives and exchange of experience with other countries.
- Implementation of modern security technologies, including intrusion detection and prevention systems, as well as regular software updates.

Thus, to ensure digital security in Uzbekistan, it is necessary to comprehensively apply legislative, technical and educational measures aimed at protecting the national cyber infrastructure and users of digital services.

**Conclusion.** Modern digital security challenges require a comprehensive approach, including improving legislation, developing technological protection and increasing the digital literacy of citizens. In Uzbekistan, as in other countries, the growth of digital threats requires the adaptation of the regulatory framework, the introduction of innovative solutions and international cooperation. An analysis of the current state of cybersecurity shows that, despite the measures taken, there remain unresolved problems, such as the vulnerability of critical infrastructure, the increase in the number of cyberattacks and insufficient user awareness of protection methods.

As a result of our research on this topic, we offer the following proposals to improve the level of digital security in Uzbekistan:

1. Strengthening the legislative framework – development of additional regulations aimed at protecting personal data, combating cybercrime and regulating cryptocurrency transactions.
2. Establishment of a national cyber incident response center – expansion of the capabilities of existing cyber centers for the prompt detection and prevention of threats.
3. Large-scale implementation of artificial intelligence (AI) technologies in the field of cybersecurity – automation of threat monitoring and data analysis for early detection of attacks.

<sup>4</sup> [https://lex.uz/ru/docs/6479197?utm\\_source=](https://lex.uz/ru/docs/6479197?utm_source=)

<sup>5</sup> [https://lex.uz/ru/docs/6681115?utm\\_source=](https://lex.uz/ru/docs/6681115?utm_source=)

4. Improving digital literacy – organizing educational programs and trainings for government officials, businesses and the public.
  5. Development of international cooperation – participation in global initiatives and partnership with leading global cybersecurity organizations.
- These measures will create a more secure digital environment, increase the level of trust in digital services and ensure the sustainable development of the digital economy of Uzbekistan.

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