

The State of the Internet and Digital Rights in Uzbekistan (2019-2025)

From 2019 to 2025, Uzbekistan demonstrates impressive growth in the field of internet technologies: the number of users is increasing, access speeds are rising, and network infrastructure is actively developing. The country is striving for digitalization, introducing new technologies and expanding its presence in the global network. This progress creates an appearance of openness and modernization, promising new opportunities for citizens and businesses. However, behind the facade of technological development lie complex and ambiguous processes.

Simultaneously with the growth of internet penetration in the country, state control over digital space is being tightened. The report provides a detailed analysis of how legislative initiatives aimed at regulating the network in practice lead to restrictions on freedom of speech and the dissemination of information. You will learn about the mechanisms for blocking independent media and social networks, as well as cases of persecution of bloggers and activists whose activities on the internet attract the attention of authorities.

This study offers a deep analysis of the dual nature of digital transformation in Uzbekistan. On one hand — technological progress, on the other — strengthening of censorship and control. The report immerses the reader in the details of this confrontation, exploring how steps toward a digital future relate to the restriction of basic digital rights and freedoms. This is not just a dry slice of data, but a study of key trends that will determine the future of the Uzbek internet and society as a whole.

Disclaimer: This document was partially generated using several large language models (LLM). The information presented in it is based on the analysis and generalization of data from the specified sources, however, the process of its structuring, generalization, and presentation was performed using artificial intelligence technologies. It is recommended to use this text as a starting point for further research and to verify critically important data from primary sources.

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1. General Information

1.1. Geographical Location

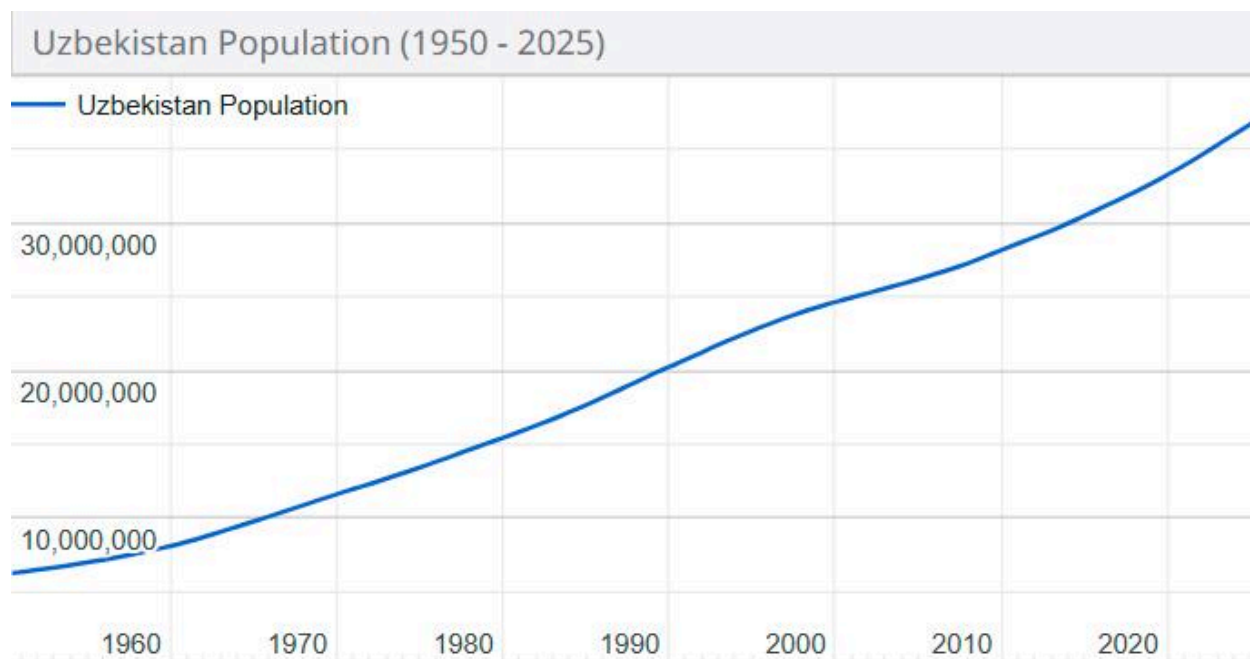
Uzbekistan is a state located in the central part of Central Asia. The country has no access to the sea and borders Kazakhstan to the north and northwest, Kyrgyzstan and Tajikistan to the east and southeast, Afghanistan to the south, and Turkmenistan to the southwest.¹ The territory of Uzbekistan consists mainly of flat deserts (the most significant of which is the Kyzylkum) and mountain ranges in the east and southeast; less than 10% of the land is intensively cultivated and irrigated oases in river valleys.²

The highest point in the country is Hazret Sultan Peak at 4643 meters, located in the Hissar Range.¹ The geographical position of Uzbekistan is characterized by double remoteness from the World Ocean: to reach it, it is necessary to cross the territory of at least two states.¹ The arid continental climate and limited water resources, mainly provided by the Amu Darya and Syr Darya rivers, historically shape a significant dependence of the economy, especially agriculture, on irrigation.³ These geographical and climatic features influence the economic development and infrastructure priorities of the country, including the development of digital infrastructure, which can be considered a means of overcoming geographical isolation and diversifying the economy.

1.2. Population

Uzbekistan is the most populous country in Central Asia.² A characteristic feature of the population is its youth: a significant share of citizens are under 30 years old.⁴ The ongoing population growth creates both opportunities associated with potential demographic dividends and challenges, including the need to create sufficient jobs and increasing pressure on social infrastructure.⁶ As of April 2025, the population of Uzbekistan exceeded 37.7 million people.⁹

Sustainable population growth, especially its young part,⁴ forms significant potential for increasing the number of internet users and consumers of digital services. However, if the rates of economic growth and job creation⁶ lag behind demographic indicators, this may lead to increased social tension. In such conditions, the internet can become an important platform for seeking information, education, remote employment, and expressing opinions. Authorities, aware of these trends, may simultaneously stimulate the development of information and communication technologies (ICT) for economic growth and seek to strengthen control over online space to maintain social stability, creating a complex and sometimes contradictory dynamic in the field of digital rights.

Graph 1: Dynamics of the Population of Uzbekistan (1950–2025)

Source: worldometers.info

1.3. Gross Domestic Product

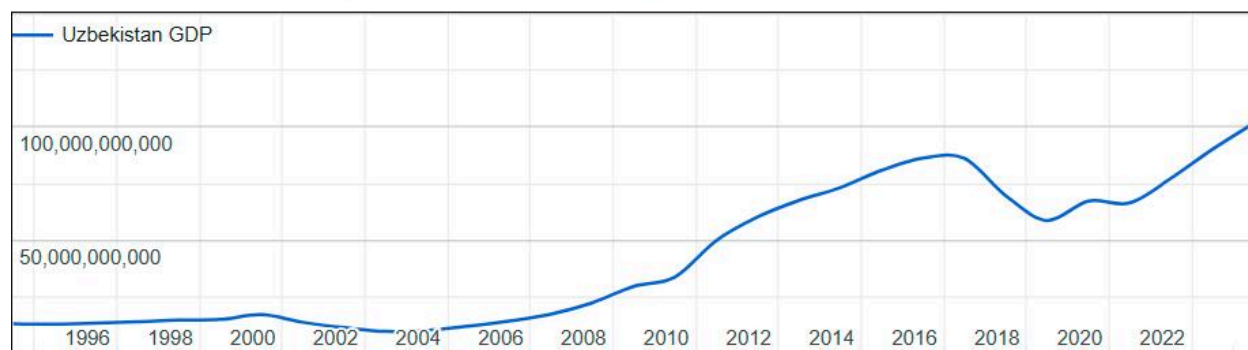
The economy of Uzbekistan from 2019 to 2024 demonstrated generally stable rates of gross domestic product (GDP) growth, except for some slowdown in 2020 associated with the global COVID-19 pandemic.⁶ GDP growth was supported mainly by strong domestic demand, increased investment volumes, and significant remittances from labor migrants.⁶ The International Monetary Fund (IMF) and the World Bank noted positive dynamics but also pointed to persisting risks related to high inflation, dependence on world prices for commodities (in particular, gold), and external economic conditions.¹⁴

The dependence of the economy on external factors, such as gold prices and volumes of remittances,¹⁴ creates certain vulnerability. During periods of economic instability or increased external shocks, governments often resort to strengthening control over information flows to prevent the spread of undesirable information and maintain social stability. Thus, economic conditions can indirectly influence the state of digital rights, even in the absence of direct legislative changes in this area. The desire to diversify the economy, including through the

development of the ICT sector,¹⁶ may run parallel to the desire to maintain control over the new, rapidly growing sector.

Graph 2: Dynamics of Nominal GDP of Uzbekistan (1993–2023)

Uzbekistan GDP (Nominal, \$USD) 1993-2023



Source: worldometers.info

1.4. Main Economic Characteristics

The economy of Uzbekistan is characterized as transitional, with ongoing reforms aimed at liberalization and attracting investments.⁶ From 2019 to 2024, economic growth was observed, although with some fluctuations caused by both internal and external factors.¹⁴ Key sectors of the economy remain agriculture (in particular, cotton production, fruits, and vegetables), industry (textile, food, mechanical engineering, metallurgy, mining, including gold and hydrocarbons), and the growing services sector.¹³

Despite the positive growth dynamics, the country's economy faces a number of structural problems. These include significant dependence on the export of raw commodities (especially gold and cotton), which makes the economy vulnerable to fluctuations in world prices.¹⁵ The geographical location (lack of direct sea access) creates logistical difficulties and increases transportation costs.¹⁵ Relatively high inflation persists.¹⁴ Despite ongoing privatization, the state still plays a significant role in many sectors of the economy.¹⁵ Problems also remain the need for further economic diversification, creating sufficient high-quality jobs for the growing population, and combating corruption.⁶

The reforms being carried out, including privatization and reduction of state control,⁶ should theoretically contribute to the development of competition, including in the internet services market. This, in turn, could lead to improved quality and reduced cost of internet access, which is an important aspect of digital rights. However, if the state retains a dominant role

through state companies, such as "Uzbektelecom" in the telecommunications sector,²⁵ or if reforms are carried out inconsistently, real improvement in the competitive environment and, consequently, expansion of digital freedoms may not occur. Statements about the abolition of the monopoly on the external internet channel²⁹ are a positive signal, but their successful implementation and real impact on the market require further monitoring and evaluation. The development of the ICT sector and digital economy is considered by the government as one of the key drivers of growth and diversification,¹⁶ which could potentially contribute to improved access to information and digital services.

1.5. General Political Situation

The Republic of Uzbekistan is a presidential republic where the president has broad executive and directive powers.³⁰ Legislative power is exercised by the bicameral parliament – the Oliy Majlis, consisting of the Legislative Chamber (lower house) and the Senate (upper house).³² Members of both houses are elected for a five-year term. In recent years, political reforms initiated by President Shavkat Mirziyoyev have been carried out in the country, including changes to the constitution and electoral legislation aimed, in particular, at strengthening the role of parliament.³²

In Uzbekistan, five political parties are officially registered: the Liberal Democratic Party of Uzbekistan (UzLiDeP), the People's Democratic Party of Uzbekistan (NDPU), the Democratic Party of Uzbekistan "Milliy Tiklanish" (National Revival), the Social Democratic Party of Uzbekistan "Adolat" (Justice), and the Ecological Party of Uzbekistan.³¹ All these parties are considered pro-government and support the political course of the current leadership. Real political opposition in the country is practically absent or its activities are severely restricted. The country's leadership is represented by the President, the Chairman of the Senate, and the Speaker of the Legislative Chamber of the Oliy Majlis.

The administrative-territorial structure of Uzbekistan includes the Republic of Karakalpakstan, which has the status of a sovereign republic within Uzbekistan, 12 regions (viloyats), and the city of Tashkent, which has the status of a city of republican subordination.³¹ Each administrative-territorial unit has its own state authorities.

The concentration of power in the hands of the president and the absence of a strong, independent opposition³¹ create conditions under which important decisions, including those concerning internet regulation and digital rights, can be made without broad public discussion and consideration of the opinions of independent experts or human rights organizations. "Top-down" reforms initiated by the president may be aimed at economic liberalization and modernization but are not always accompanied by similar liberalization in the political sphere and in the area of civil liberties, including freedom of speech and expression of opinions on

the internet. The events in Karakalpakstan in 2022,²⁵ related to protests against proposed constitutional amendments and the subsequent introduction of a state of emergency and internet shutdown, demonstrated the authorities' readiness to resort to harsh measures to maintain control, which casts doubt on the depth and consistency of democratic transformations. This underscores that in crisis situations, priority may be given to security issues at the expense of digital freedoms.

2. Internet

2.1. National Domain

The national top-level domain (ccTLD) for Uzbekistan is .UZ.⁴⁴ Administration of the .UZ domain zone is carried out by the Single Integrator for the creation and support of state information systems UZINFOCOM (previously known as the Center for the Development and Implementation of Computer and Information Technologies UZINFOCOM).⁴⁴ Registration of domain names in the .UZ zone is carried out through accredited registrars, of which there are currently 25, including state unitary enterprises "Center for Computerization" at regional administrations.⁴⁴

The .UZ domain was delegated on April 29, 1995.⁴⁴ Initially, registration of domain names was free. Subsequently, the rights to administer the domain were transferred several times to various organizations until December 2002, when ICANN and IANA decided to redelegate these rights to the UZINFOCOM Center.⁴⁴ Since April 28, 2021, DNSSEC technology has been implemented for the .UZ domain, increasing the security and reliability of domain names.⁴⁴ There are officially approved "Rules for the registration and use of domain names in the 'UZ' domain" that regulate the procedure for registration, use, renewal, and transfer of domain names.⁵³

The conditions for using the .UZ domain are generally open to individuals and legal entities, both residents and non-residents of Uzbekistan, for registration of second-level domain names.⁴⁵ However, for some second-level subdomains, such as .COM.UZ, .ORG.UZ, .CO.UZ, there may be restrictions, for example, the requirement to be a citizen of the Republic of Uzbekistan.⁴⁹ There are also specialized second-level domains, such as .GOV.UZ for state institutions, .EDU.UZ for educational institutions, and others.⁴⁴ Registration of domains is carried out for a period of 1 to 10 years.⁴⁴

The transfer of administration of the national .UZ domain to the state structure UZINFOCOM⁴⁴ and the existence of detailed registration rules⁵³ indicate the state's desire to exercise control over the national domain space. Although formally the registration of second-level domains in

the .UZ zone is open, the presence of a state administrator and specific rules creates the potential for refusal of registration or cancellation of registration of domain names for reasons that may be interpreted by authorities as politically motivated, even if not directly stated in the rules. Centralized management of the domain can be considered not only as a technical necessity but also as a tool for influencing content and availability of online resources.

2.2. Number of Users

The number of internet users in Uzbekistan demonstrates steady and significant growth throughout the period under review (2019–2025). According to DataReportal, as of the beginning of 2025, the number of internet users reached 32.7 million people, which constitutes 89.0% of the country's total population. Over the year, from January 2024 to January 2025, the number of users increased by 626 thousand, or 2.0%.⁵ As of January 2024, according to other data, there were 29.52 million active internet users, with an internet penetration at 83.3%.⁵⁷

Data from the World Bank and the International Telecommunication Union (ITU) also confirm this trend:

- 2023: internet penetration rate was 89.0%.⁷
- 2022: 83.9% of the population.⁵⁸ According to DataReportal, in January 2022 there were 24.05 million internet users.⁶¹
- 2021: 76.6% of the population.⁵⁸
- 2020: 71.1% of the population.⁵⁸
- 2019: 70.4% of the population.³⁹

Such rapid growth in the number of internet users and internet penetration forms a more active and potentially more demanding online community. This may lead to increased demand for diverse content, educational resources, digital services, and platforms for expressing opinions. At the same time, it enhances the importance of the internet as the main source of information for a significant part of the population, which in turn raises the stakes in matters of control over the information space.

The expansion of the internet audience creates both opportunities for the development of pluralism of opinions and civic activism, and challenges for state structures seeking to maintain control over the information field. In this context, legislative initiatives concerning the regulation of online content, blocking, and liability for disseminating information can be regarded as a response to the growing influence of the internet and an attempt to limit its potential for uncontrolled dissemination of information or mobilization of citizens.

2.2.1. Fixed-line Internet

Access to fixed broadband internet (BBA) in Uzbekistan has traditionally been based on ADSL (Asymmetric Digital Subscriber Line) technology; however, in recent years there has been active development of fiber-optic communication lines (FOCL) and FTTB (Fiber-to-the-Building) technology.²⁵ The state joint-stock company “Uzbektelecom” (trade mark Uzonline) holds a dominant position in the fixed broadband market.²⁵ As part of the “Digital Uzbekistan – 2030” strategy, further expansion of the FOCL network throughout the country is planned.¹⁶

Table 1: Largest fixed (home) internet providers in Uzbekistan and their market shares (December 2023)

Provider	Market share (%)	Official website link
Uztelecom (Uzonline)	83%	https://uztelecom.uz ²⁶
Asia Wireless Group (Sola.uz)	3%	https://sola.uz ⁷²
Sarkor Telecom	2%	https://sarkor.uz ⁶⁸
Turon Telecom	2%	https://turontelecom.uz ⁸¹
Others	10%	-

Source of market share data: Freedom House (referring to Uztelecom data).²⁵

The dominant position of the state-owned company “Uzbektelecom”, which controls 83% of the fixed broadband market,²⁵ indicates a high degree of concentration and potential barriers to the development of full-fledged competition. Despite plans to demonopolize the external internet channel starting from 2025,²⁹ actual competition at the “last mile” level (access to the end user) remains limited. This may lead to insufficient incentives for the main player to improve service quality, reduce tariffs, and introduce innovations, which in turn restricts citizens’ opportunities for access to information and digital services. The dependence of other providers on “Uzbektelecom” infrastructure²⁵ further exacerbates this situation, affecting the availability and diversity of internet services, which is an important aspect of digital rights.

2.2.2. Mobile Internet

Mobile internet is the main means of access to the network for a significant part of Uzbekistan’s population, especially in rural areas and regions outside the capital.²⁵ The country is actively developing fourth-generation (4G) networks, and the introduction of fifth-generation (5G) technology has begun in major cities.²⁵

Table 2: Largest mobile operators (including mobile internet) in Uzbekistan and their market shares (December 2023)

Operator	Market share (%)	Official website link
Beeline Uzbekistan (Unitel)	25%	https://beeline.uz ⁹⁰
Ucell (COSCOM)	25%	https://ucell.uz ⁸⁴
Uztelecom (Uzmobile)	23%	https://uztelecom.uz ⁶⁹
Mobiuz (UMS)	22%	https://mobi.uz ⁹⁰
HUMANS	4%	https://humans.uz ⁹⁷
Perfectum Mobile	1%	https://perfectum.uz ⁸⁸

Source of market share data: Freedom House (referring to Uztelecom data).²⁵

The mobile internet market in Uzbekistan appears more competitive compared to the fixed broadband market; however, significant presence of state or state-affiliated companies (Ucell, Uzmobile, Mobiuz) remains.²⁵ This means that the state continues to have substantial leverage over the majority of mobile traffic in the country. The introduction and development of 5G networks²⁵ opens new technological opportunities and can contribute to improving service quality, but at the same time may become subject to increased regulatory attention in terms of security and control. Although higher competition in the mobile market should theoretically

lead to better services and lower prices, state influence over key operators may limit the space for independent development and full protection of user rights.

2.3. Internet Access Speed and Quality of Services Provided

Internet access speed in Uzbekistan, despite certain progress in recent years, remains relatively low by global standards, especially for mobile internet.²⁵ Users often face problems of low connection quality and frequent connection drops, which is particularly noticeable outside the capital.²⁵

According to the Ookla Speedtest Global Index, as of January 2025, Uzbekistan ranked 68th in the world for mobile internet speed with an average download speed of 51.02 Mbit/s.⁸⁶ A year earlier, in January 2024, the median download speed for fixed broadband was 59.07 Mbit/s, and for mobile – 26.97 Mbit/s.²⁵ Other sources also indicate gradual improvement in the country's positions in global speed rankings. For example, according to upl.uz in September 2024, the average mobile internet speed was estimated at 38.96 Mbit/s, and wired – 72.99 Mbit/s (74th place in the world).¹⁰³ Internet Society Pulse in its 2023 report reported average speeds of 55.15 Mbit/s for fixed and 24.53 Mbit/s for mobile internet.¹⁰² According to Cable.co.uk, in 2023 Uzbekistan ranked 131st in the world with an average broadband speed of 21.67 Mbit/s, which is an improvement compared to 155th place in 2022.¹⁰⁴

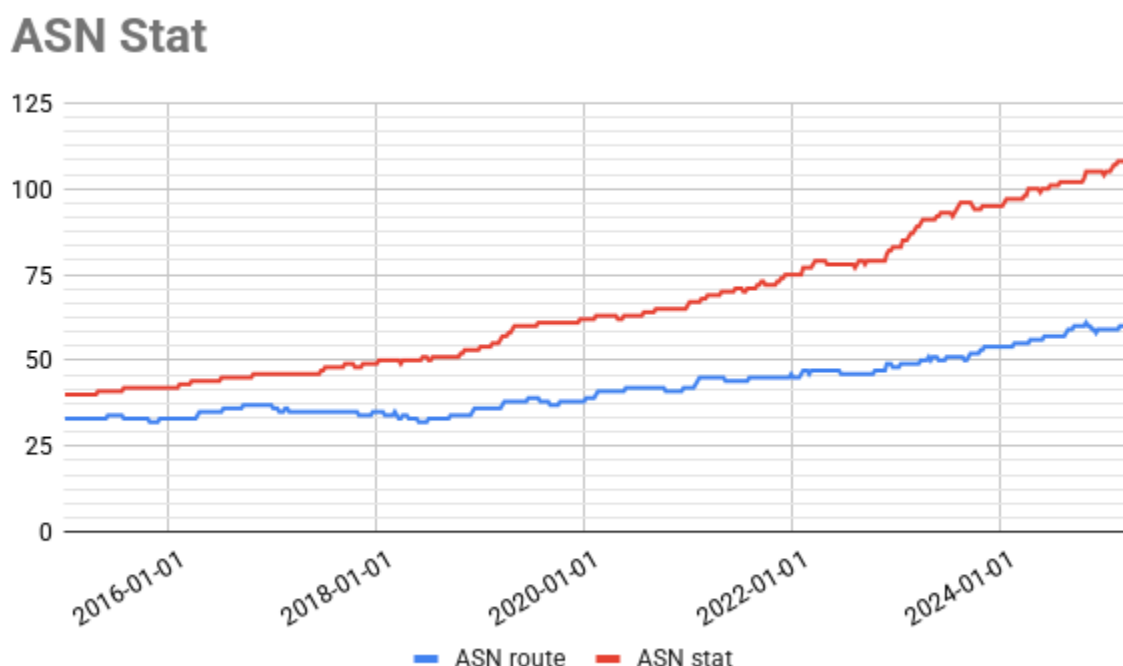
Despite official reports on improvement in international internet speed rankings,⁸⁶ the actual quality and stability of internet connection, especially in the country's regions, remain the subject of user complaints.²⁵ This directly affects citizens' ability to fully use digital resources, access educational programs and e-commerce services, and participate in global information exchange. Poor connection quality may result from both insufficient investment in infrastructure and its modernization and limited market competition that does not incentivize providers to actively improve their services. In some cases, unstable and slow connection can be perceived as a form of “soft” access restriction, when internet is formally available but its practical use is hindered. This situation impedes the full realization of citizens' right to access information and limits their opportunities in the digital environment.

2.4. Development of Providers and Autonomous Systems

The number of Autonomous Systems (AS) registered in Uzbekistan is an important indicator of internet infrastructure development and its degree of decentralization. According to RIPE NCC (the regional internet registry for Europe, the Middle East and part of Central Asia) as of April 2025, 63 ASN were registered in Uzbekistan.¹⁰⁶ According to the Hurricane Electric service, which tracks routable AS, there were 92 of them during the same period.¹⁰⁷ Internet Society Pulse also indicates 92 active networks (AS) in the country as of 2025.¹⁰²

Historically, the number of AS in Uzbekistan has shown growth. The RIPE NCC report for September 2020 showed an increase from approximately 50 in 2017 to about 70 in 2020.¹⁰⁸ An analysis conducted by RIPE Labs in May 2025 indicates certain fluctuations in the level of route coverage using RPKI (Resource Public Key Infrastructure), indicating activity by individual AS such as Sarkor Telecom and Turon Media in implementing secure routing practices.¹⁰⁹

Graph 3: Dynamics of Autonomous Systems in Uzbekistan (2015–2025)



Over the past decade, Uzbekistan has seen steady growth in internet infrastructure. However, compared to some countries in the region in terms of autonomous systems density per capita, the country still lags, indicating significant potential for further growth.

Steady growth: Both curves in the graph — the total number of registered autonomous systems (ASN stat) and the number of systems in global routing (ASN route) — show steady growth. This indicates constant connection of new organizations, internet providers and large companies to the global network.

Acceleration since 2019: It is noticeable that the growth rate of registered AS (red line) accelerated around 2019–2020, which may be related to telecommunications sector reforms and increased business activity in the country.

Growing gap: The gap between the total number of AS (107) and the number of routable ones (60) is increasing over time. This means that about 44% of registered systems do not announce their networks in the global internet. Possible reasons include registration of AS “for future use” for future projects, their use for internal purposes or for organizing direct peering without announcement in the global routing table.

When comparing the number of autonomous systems with population size, it is possible to assess the level of internet penetration and development in the country. In Uzbekistan, with a population of about 37.5 million people, there are 107 autonomous systems, which is approximately 2.9 AS per million residents.

For comparison, Kazakhstan demonstrates significantly higher density: with a population of about 20.6 million people, the country has 192 AS, i.e. ~9.3 AS per million residents. Kyrgyzstan also has a high indicator: 58 AS for 7.3 million people, or ~7.9 AS per million residents. Tajikistan’s indicators are comparable to Uzbekistan’s: ~3.0 AS per million residents (31 AS for 10.4 million people). The lowest density in the region is observed in Turkmenistan — only ~1.1 AS per million residents (8 AS for 7.6 million people).

Thus, despite absolute growth, the market for internet services and network connectivity in Uzbekistan has significant prospects for further development and decentralization to reach the density level of neighbouring countries such as Kazakhstan and Kyrgyzstan. The growth in the number of autonomous systems is a key indicator of the maturity of the internet ecosystem, as it leads to increased competition, improved connection quality and lower prices for end users.

The increase in the number of Autonomous Systems is a positive indicator of the country’s internet infrastructure development. However, simply stating the growth in the number of AS does not always reflect the real degree of decentralization and resilience of the national internet segment. Significant market concentration around several major providers, especially those that are state-owned or state-affiliated,²⁵ may mean that many of the newly registered AS are relatively small or technologically dependent on these major players. Internet Society Pulse data show that BRM-AS (presumably associated with “Uzbektelecom”) controls 44% of the market,¹⁰² confirming high concentration. Moreover, insufficient diversification of international internet connections (according to Internet Society Pulse, “Upstream diversity is Poor”¹⁰²) and a relatively low level of adoption of modern secure routing practices such as RPKI¹⁰⁹ make the national internet segment more vulnerable to technical failures, targeted attacks or state control.

Table 3: Top 10 Largest Autonomous Systems in Uzbekistan

#	Number of AS	Name	Web Site	Foreign neighbour count	Local neighbour count	Total neighbour count	Foreign neighbours share
1	34250	UZTELECOM-AS	https://www.uztelecom.uz	0	43	43	0%
2	28910	Uzbektelekom	https://www.uztelecom.uz	27	16	43	63%
3	34718	TEXNOPROSISTEM	https://tps.uz	0	19	19	0%
4	43060	Comnet	https://comnet.uz/	0	9	9	0%
5	211914	LLC AliExpress		7	0	7	100%
6	12365	Sarkor Telecom	https://sarkor.uz	0	4	4	0%
7	202660	BRM-DataCenter		1	3	4	25%
8	42017	Ars-Inform	http://ars.uz	1	2	3	33%
9	39568	ASIA-WIRELESS SOLA	http://www.sola.uz	0	3	3	0%
10	43268	SNS-IX Route Servers	https://sns-ix.uz	2	1	3	67%

The internet landscape of Uzbekistan is highly centralized. The state operator UZTELECOM plays a key role and is represented in the top with two autonomous systems:

- AS34250 (UZTELECOM-AS): This system is the core of the domestic internet. It has no foreign connections (Foreign neighbour count: 0) but has the maximum number of local connections (Local neighbour count: 43). In fact, it is the main hub through which the bulk of traffic between Uzbek providers passes.
- AS28910 (Uzbektelekom): This system, on the contrary, serves as the main international gateway. It has 27 foreign connections, accounting for 63% of its total peering connections.

Such a structure indicates that most local internet providers and companies depend on UZTELECOM both for domestic traffic exchange and for access to the global network.

From the top 10 systems, it is evident that only a few players have direct access to foreign operators. Most major providers such as TEXNOPROSISTEM (TPS), Comnet and Sarkor Telecom have no direct foreign connections at all. They completely rely on upstream providers

(primarily UZTELECOM) for global internet access. This creates a hierarchical model that can limit routing flexibility and increase dependence on a single provider.

Despite the centralization, there are signs of market development:

- Presence of CDN: LLC AliExpress (AS211914) stands out because 100% of its connections are foreign. This is a typical example of a content delivery network (CDN) that places its servers inside the country to accelerate access to its resources for local users. This is a positive sign indicating the attractiveness of the Uzbek market for global content providers.
- Development of an internet exchange point: The presence of SNS-IX Route Servers (AS43268) in the list indicates the existence and operation of a local internet exchange point (IXP). This is an important element for network development as it allows participants to exchange traffic directly, bypassing upstream providers. This reduces latency and reduces the cost of domestic traffic. However, judging by the small number of neighbours, its role is still limited.

Overall, the structure of the internet in Uzbekistan is characterized by a monocentric model with a dominant role of the state. At the same time, there is growth in domestic peering and the emergence of international content providers, indicating gradual evolution and maturation of the market.

2.5. IPv6 Adoption

The transition to Internet Protocol version 6 (IPv6) is a global necessity due to the exhaustion of IPv4 address space. In Uzbekistan, the level of IPv6 adoption remains relatively low compared to global indicators, although some signs of progress have appeared in recent years.

Data from various sources on IPv6 penetration in Uzbekistan are mixed:

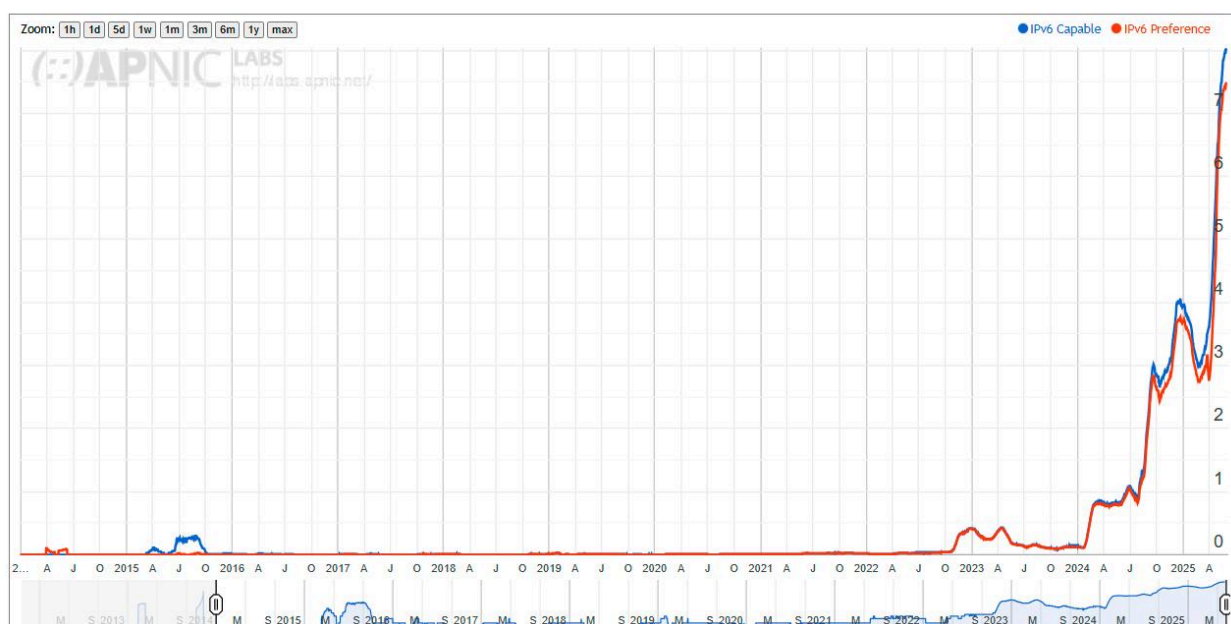
- **APNIC Labs** (Asia-Pacific Network Information Centre) as of May 2025 shows for the Central Asia region (XR) overall an IPv6 Capable level of 11.41% and IPv6 Preferred of 10.66%.¹¹⁰ The graphs for Uzbekistan (UZ) on the APNIC website have historically shown a very low adoption level close to zero, but recently some growth has been observed.¹¹² The APNIC report for April 2025 notes that the Asia-Pacific region as a whole has reached 50% IPv6 capability, but Uzbekistan is not among the leader countries in this indicator.¹¹⁴
- **Google IPv6 Statistics** (April 2025) show a global IPv6 adoption level of approximately 47.55%.¹¹⁵ A specialized resource tracking Google data by country (aelius.com/njh/google-ipv6/uz.html) shows historically low level for Uzbekistan, but

with noticeable growth in recent years, reaching approximately 10–15% by the beginning of 2025 (based on visual assessment of the presented graph).¹¹⁶

- **Internet Society Pulse** (2025 data) estimates IPv6 adoption in Uzbekistan at 4%, while the Asian average is 39%.¹⁰²
- Data from the portal **ipv6-test.com** (November 2023) also indicate slow growth in IPv6 adoption, but specific numerical data for the period 2019–2025 are missing.¹¹⁷

Graph 4: Dynamics of IPv6 Adoption in Uzbekistan (2015–2025)

Use of IPv6 for Uzbekistan (UZ)



Source: stats.labs.apnic.net

The low level of IPv6 adoption in Uzbekistan¹⁰² compared to global and even some regional indicators¹¹⁰ represents a serious obstacle to the long-term sustainable development of the national internet segment. This may lead to problems with network scalability, increased costs for maintaining outdated IPv4 infrastructure (for example, due to the widespread use of Carrier-Grade NAT technology, which can complicate the operation of some applications and complicate the identification of cyberthreat sources). Delayed IPv6 adoption may also limit access for Uzbek users and services to those global network resources that in the future will be available only via the IPv6 protocol. Thus, despite the overall growth in the number of internet users and infrastructure development, the lag in IPv6 adoption creates a kind of “technical debt” that may negatively affect the competitiveness of the country’s digital economy and its integration into global internet space.

2.6. Connectivity Index

Two key indicators based on pairwise (peering) connections between Autonomous Systems (ASN) are used to assess the level of integration of an internet segment.

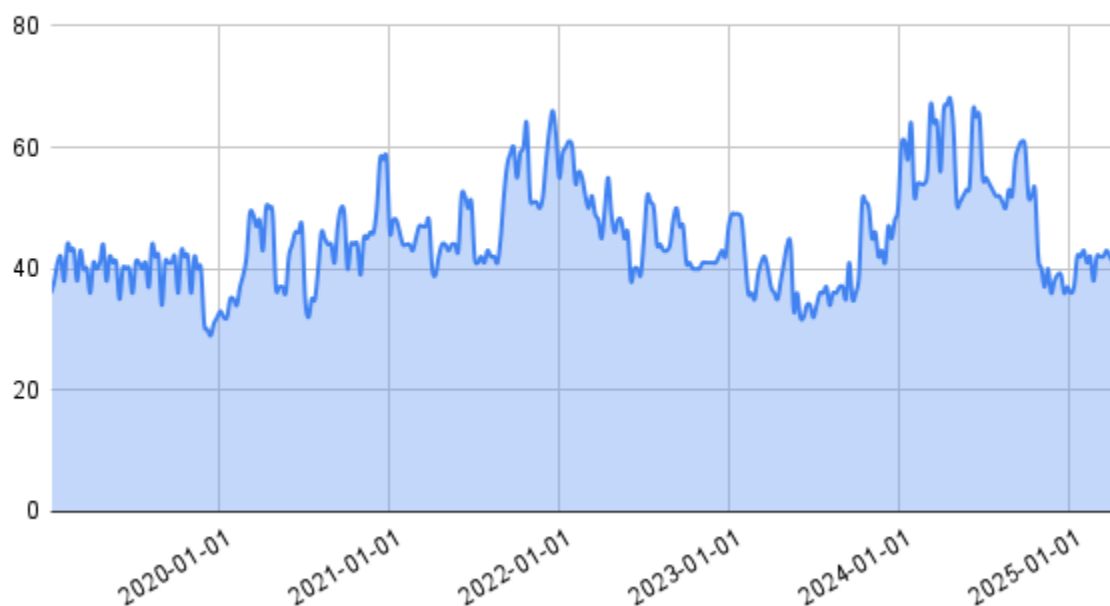
Global Connectivity Index: This index represents the total number of unique connections between each local ASN and each external (foreign) ASN. Essentially, it measures how widely and diversely the internet segment is connected to the rest of the world. The higher this indicator, the more “windows” the country has to the global network.

Local Connectivity Index: This index is calculated as the total number of unique connections between different local Uzbek ASNs. It reflects the intensity and complexity of the domestic internet market, in particular the activity at internet exchange points (IXP). A high value indicates a developed internal ecosystem that allows efficient domestic traffic exchange, minimizing latency and dependence on external channels for local data.

Analysis of the ratio of these two indices allows understanding the strategic orientation of the national network: whether it is predominantly self-sufficient or deeply integrated into global infrastructure.

Graph 5: Dynamics of Global Connectivity of Autonomous Systems in Uzbekistan (2019–2025)

Global connectivity statistics

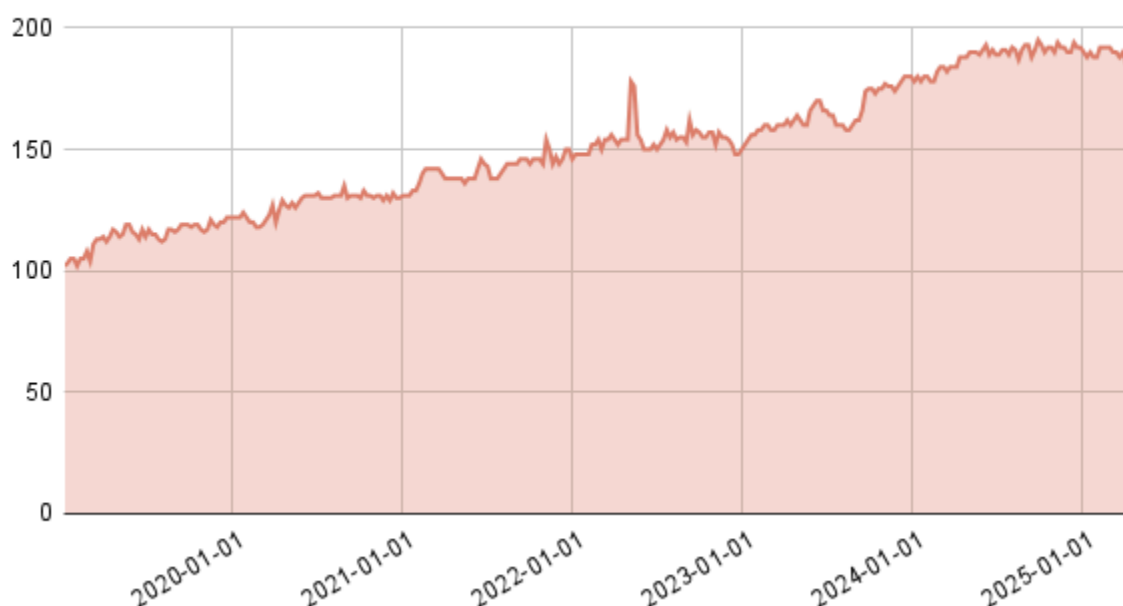


Analysis of the graph shows that the Global Connectivity Index of Uzbekistan over the past five years has not shown steady growth. The indicator fluctuates in the range of 30 to 70 unique connections, with periods of peak activity in early 2022 and mid-2024, but without a pronounced upward trend. Such dynamics indicate that the diversity of “windows” to the global internet remains relatively stable.

This confirms the earlier conclusion about the high centralization of international channels. The market is not saturated with new, independent international connections at the same rate at which the network itself grows. The stability of this index against the background of growth in the number of autonomous systems indicates that new players mainly connect to existing international gateways rather than build their own direct connections with foreign operators.

Graph 6: Dynamics of Local Connectivity of Autonomous Systems in Uzbekistan (2019–2025)

Local connectivity statistics

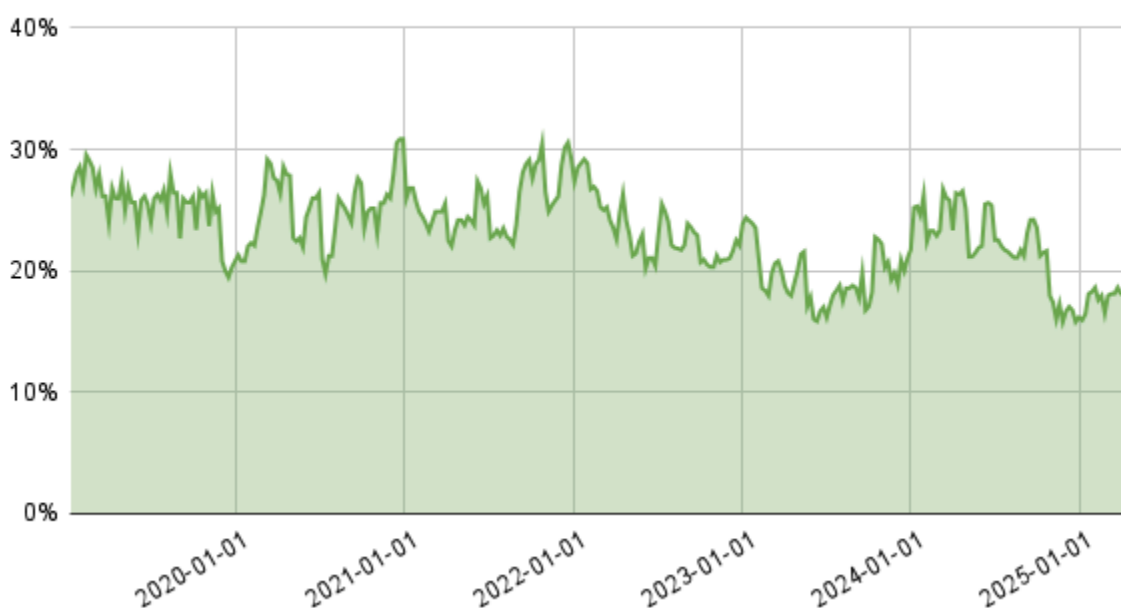


In contrast to global, the Local Connectivity Index demonstrates confident and steady growth. Since the beginning of 2020, the number of unique connections between Uzbek autonomous systems has almost doubled, increasing from 100 to almost 200. This upward trend is a key indicator of the maturation of the country's internal internet ecosystem.

The growth of local connectivity indicates active development of peering relationships between local providers, increasing the role of internet exchange points (IXP) and growth in the volume of local content. Strengthening internal connections allows internet traffic to remain within the country, which directly leads to reduced latency, increased speed of access to local resources and reduced dependence on expensive international channels for exchanging local data.

Graph 7: Dynamics of the Ratio of Global and Local Connectivity of Autonomous Systems in Uzbekistan (2019–2025)

Total connectivity share



This graph clearly illustrates the strategic change in the structure of the Uzbek internet. We see a consistent decline in the share of global connections in the total volume of connectivity — from approximately 30% in 2020 to less than 20% in 2025. This trend is a direct consequence of the two previous graphs: stagnation in the growth of global connections against the background of rapid growth of local ones.

It is important to understand that this decline does not mean isolation of the internet segment. On the contrary, it shows that the domestic internet market is growing at a faster pace and becoming increasingly self-sufficient and complex. The network is evolving from a simple “pipe” model for access to foreign resources to a mature ecosystem with intensive internal traffic exchange. This is a natural and positive stage in the development of national internet infrastructure.

3. Internet-Related Legislation

3.1. Principles of Internet Governance

The state policy of Uzbekistan in the field of internet governance is aimed at forming and developing a national information system, ensuring citizens' access to information and integrating the country into the global information space.¹¹⁸ At the same time, this policy is implemented taking into account the need to ensure national interests, information security and protection of public foundations.¹²⁰ The legislation emphasizes the importance of protecting information, information systems and the rights of subjects of information relations.¹²⁰ The key legislative acts forming the basis for internet governance are the Law "On Informatization",¹¹⁹ the Law "On Telecommunications" (new edition ZRU-1015 of 27 December 2024)¹¹⁸ and the Law "On Personal Data" (ZRU-547 of 2 July 2019).¹²²

The principles of free access to information declared in the legislation¹¹⁸ in practice often conflict with norms and enforcement practices aimed at strengthening state control over the information space. This is done under the pretext of ensuring national security, public order and protection of moral foundations. For example, the Law "On Informatization"¹²⁰, while guaranteeing the right to freely receive and disseminate information, in Article 12¹ simultaneously imposes on website owners and bloggers the obligation to control content and prevent the dissemination of a wide list of "prohibited information". Such internal contradiction and the use of vague wording create legal uncertainty and can contribute to self-censorship among users and online media fearing arbitrary interpretation of the law. The new edition of the Law "On Telecommunications"¹³¹ is aimed at improving certain aspects of market regulation, but is unlikely to fundamentally change the overall state approach to controlling the content of information on the network.

3.1.1. Regulation

Internet regulation in Uzbekistan is a set of legislative, administrative and technical measures carried out by authorized state bodies.²⁵ The state plays a dominant role in determining the rules for the functioning of the national internet segment, including licensing of telecommunications service providers, control over the content of disseminated information and ensuring information security.²⁵

The system of licensing operators and telecommunications service providers is one of the key tools of state regulation.²⁵ The new edition of the Law "On Telecommunications", adopted at the end of 2024, provides for the transfer of licensing powers in the field of telecommunications from the Ministry of Digital Technologies to an independent regulator.¹³¹ Despite the declared steps towards liberalization and the creation of an independent regulator, the overall structure of internet sector management retains features of centralization and orientation towards state control. In practice, the "independence" of the

new regulator may be limited, given the overall political system of the country and the established practice of state administration. The effectiveness of regulation will also depend on the degree of transparency of the new body's activities and the presence of effective mechanisms of its accountability to society.

3.1.2. Regulatory Authorities and Responsible Persons

Several state bodies are responsible for internet regulation in Uzbekistan, the key ones being:

- Ministry of Digital Technologies of the Republic of Uzbekistan (formerly Ministry for Development of Information Technologies and Communications, Mininfocom, MiTC): It is the central state administration body responsible for forming and implementing a unified state policy in the field of digital technologies, informatization and telecommunications, including the internet. Until recently, the ministry was also responsible for licensing activities in the field of telecommunications.²⁵
 - Official website: <https://digital.uz>⁷¹ (previous site: mitc.uz¹³⁶).
 - Minister: Sherzod Shermatov.¹⁴⁷
 - First Deputy Ministers: Oleg Pekos, Olimjon Umarov.¹⁴⁷
 - Deputy Ministers: Jamol Makhmudov, Rustam Karimjonov.¹⁴⁷
- Inspection for Control in the Sphere of Informatization and Telecommunications (“Uzkomnazorat”) under the Ministry of Digital Technologies: It exercises state control over compliance with legislation in the field of informatization and telecommunications, postal communication. Its powers include monitoring internet resources and taking measures to restrict access to sites containing prohibited information.²⁵
 - Official website: <https://uzkomnazorat.uz>¹⁴¹ (also mentioned gis.uz¹³⁹).
 - Head: Farrukh Rustamov.¹⁴¹ (Previously, since April 2022, acting head was Azam Abdullaev.¹³⁹)
- Agency for Information and Mass Communications under the Administration of the President of the Republic of Uzbekistan (AIMK): It plays a significant role in shaping and implementing the state's information policy, monitors mass media, including online publications and bloggers. The Agency also participates in the procedure for identifying and restricting access to internet resources disseminating prohibited information, preparing relevant conclusions.²⁵
 - Official website: <https://aoka.uz>.¹³⁷
 - Director: Asadjon Khodjaev.¹⁵¹
- Agency for Personalization under the Ministry of Justice of the Republic of Uzbekistan (formerly State Personalization Center under the Cabinet of Ministers): It is the authorized state body in the field of personal data. It maintains the State Register of personal data databases and monitors compliance with personal data legislation.¹²²
 - Official website: <https://dpm.uz>.¹⁴⁰

- Leadership: According to the Ministry of Justice portal, the position of director is vacant.¹⁴⁰
- Single Integrator UZINFOCOM: A state enterprise that is the administrator of the national top-level domain .UZ.²⁵
- Center for Technical Assistance under the Ministry of Digital Technologies: It is engaged in collecting, storing and analyzing data from internet providers and law enforcement agencies concerning “threats to information security”, indicating its role in the system of state monitoring and supervision in the online space.²⁵

The presence of several state bodies involved in regulating the internet sector, with functions that may overlap or not always clearly delineated (for example, in issues of site blocking, where both AIMK and Uzkomnazorat participate), can lead to complication of procedures for market participants and create opacity in decision-making. The lack of full independence of these bodies from the executive branch and insufficient public accountability can undermine trust in their activities and contribute to selective enforcement, which potentially increases pressure on internet resources and limits freedom of information.

3.2. Market Monopolization

Issues of monopolization in the telecommunications and internet market in Uzbekistan are regulated by general antimonopoly legislation as well as special norms concerning the sphere of communications and media. The key act is the Law of the Republic of Uzbekistan “On Competition” in the new edition (ZRU-850 of 3 July 2023), which establishes general rules for preventing and suppressing anti-competitive actions and abuse of dominant position.¹⁵⁴ The Law “On Mass Media” contains a direct prohibition on monopolization of the media market, setting a limit of 25% of the market for one founder or owner.¹⁶⁴ The new Law “On Telecommunications” (ZRU-1015 of 27 December 2024) also addresses competition issues, including provisions on joint use of infrastructure and creation of an independent regulator.¹¹⁸

Despite the existence of antimonopoly legislation, in practice the telecommunications and internet services market in Uzbekistan is characterized by a high degree of concentration and dominance of state companies. The de facto monopolist in the fixed-line communications and broadband internet access market is the joint-stock company “Uzbektelecom”, whose share in the broadband market is estimated at 83%.²⁵ Until recently, “Uzbektelecom” also had the exclusive right to connect to international internet channels, creating significant barriers for other providers.²⁵ By Presidential Decree of 3 June 2024, this monopoly is to be abolished from 1 January 2025, which is a step towards market liberalization.²⁹

The management of natural monopolies is carried out by the state. The new Law “On Telecommunications” provides for the creation of an independent regulator whose powers will

include, inter alia, setting tariffs for communication services and ensuring non-discriminatory access to infrastructure.¹³¹ However, despite legislative changes and declared intentions for demonopolization, the actual dominance of “Uzbektelecom” and other state or state-affiliated structures in the market persists. This creates significant barriers to the development of healthy competition, which in turn can negatively affect prices, quality and diversity of internet services available to the population and business. The effectiveness of the new “independent” regulator in overcoming these structural problems and ensuring real competition remains to be assessed in practice and will largely depend on its real powers and political will to apply them against the entrenched interests of major state players.

3.3. Internet Shutdowns Ordered by Authorities

Uzbekistan’s legislation provides for the possibility of shutting down or restricting access to the internet and other communication services by decision of the authorities, especially in emergency situations. The main document regulating such measures is the Constitutional Law of the Republic of Uzbekistan “On the State of Emergency” (ZRU-737 of 15 December 2021).⁴⁰ Article 13 of this law provides that in a state of emergency introduced due to circumstances posing an immediate threat (such as mass riots, terrorist acts, attempts at violent change of the constitutional order), restrictions may be imposed on the activities of mass media and a special procedure for the use of communications may be established.¹⁶⁸

The procedure for introducing a state of emergency and accompanying restrictions, including possible communication shutdowns, is initiated by a decree of the President of the Republic of Uzbekistan, which must then be approved by a joint resolution of the chambers of the Oliy Majlis (parliament).¹⁶⁸ The detailing of the mechanism for managing telecommunications networks in such situations is contained in Resolution of the Cabinet of Ministers No. 789 of 27 November 2024 “On approval of the Regulation on the centralized administrative management system of telecommunications networks of the Republic of Uzbekistan in emergency situations and under a state of emergency”.¹⁷⁴ This resolution likely describes the technical and administrative procedures allowing state bodies to exercise centralized control and, if necessary, suspend the operation of communication networks.

Reasons for introducing a state of emergency and, accordingly, for possible internet shutdowns may include circumstances creating an immediate threat to the life, health and safety of citizens, the constitutional order and territorial integrity of the Republic of Uzbekistan.¹⁶⁸ The order for this is issued by the President of the Republic of Uzbekistan.

The existence of such a legislative framework creates legal grounds for restricting access to information in crisis situations. However, the broad wording of the grounds for introducing a state of emergency and the significant powers granted to the executive branch carry risks of

abuse. Internet shutdowns can be used not only to ensure public safety but also to suppress dissent, restrict the dissemination of information about protest actions or conceal data about the actions of authorities, as was observed during the events in Karakalpakstan in July 2022.²⁵ This poses a serious threat to citizens' right to access information and freedom of expression, especially during periods of political instability, as shutting down the internet impedes obtaining objective information, communication and coordination of civic actions.

3.4. Legislation on “Words on the Internet”

Uzbekistan's legislation contains a number of provisions establishing administrative and criminal liability for certain statements and dissemination of information on the internet. These provisions are aimed at regulating content and user behavior in the online space, but their broad and often vague wording raises concerns from the point of view of protecting freedom of speech and expression.

Key legislative acts and articles concerning “words on the internet” include:

- Article 158 of the Criminal Code of the Republic of Uzbekistan (“Encroachment on the President of the Republic of Uzbekistan”): Part 3 of this article provides for punishment of up to five years' imprisonment for public insult or slander against the President committed using telecommunication networks or the global internet.⁶³
- Article 244-1 of the Criminal Code (“Production, storage, dissemination or display of materials containing a threat to public security and public order”): This article criminalizes the production, storage for the purpose of dissemination or dissemination in any form, including through mass media, telecommunication networks or the internet, of materials containing ideas of religious extremism, separatism, fundamentalism, calls to commit terrorist acts or other actions aimed at violently changing the constitutional order or violating territorial integrity. Punishment can reach imprisonment for a term of three to five years, and under aggravating circumstances – up to twelve years.¹⁸⁷
- Article 244 of the Criminal Code (“Mass riots”): Organizing mass riots accompanied by violence, arson, destruction of property, resistance to authorities, as well as active participation in such riots is punishable by imprisonment for a term of five to fifteen years. Calls to participate in mass riots, including via the internet, may also fall under this legislation.¹⁸¹
- Article 201-1 of the Code of the Republic of Uzbekistan on Administrative Responsibility (“Public call for non-compliance or violation of legislative acts”): This article provides for a fine or administrative arrest for public calls for non-compliance or violation of legislative acts if these actions pose a threat to public order and security.¹⁸¹

- Article 12¹ of the Law of the Republic of Uzbekistan “On Informatization”: This article imposes on owners of websites, webpages and other information resources, including bloggers, the obligation not to allow the use of their resources for disseminating a wide range of information recognized as prohibited. Such information includes calls for violent change of the constitutional order, propaganda of war, terrorism, extremism, separatism, incitement of enmity, dissemination of knowingly false information that harms honor and dignity or business reputation, interference in private life, as well as information expressing disrespect for society, the state, state symbols in an indecent form.¹²⁰ Resource owners are obliged to verify the accuracy of information and delete unreliable or prohibited information.

The concept of “dissemination of fakes” or “knowingly false information” in legislation is interpreted through formulations such as “knowingly false information creating a threat to public order or security”¹²⁰ or “materials containing a threat to public security and public order”.¹⁸⁷ However, clear legal definitions of what exactly is considered “false” or “threatening” are often absent or vague, leaving considerable room for subjective interpretation by law enforcement agencies.

Such broad and vague wording in the legislation creates serious risks for freedom of speech and expression on the internet. Liability for “disrespect to the state”, “dissemination of false information” or “insulting the president” without clear and narrowly defined criteria can be used to suppress any criticism of the authorities or discussion of sensitive social or political topics. This leads to the so-called “chilling effect”, where bloggers, journalists and ordinary users resort to self-censorship out of fear of possible persecution.³⁸ The lack of clear legal frameworks and precedents allows law enforcement agencies and courts to apply these norms selectively, undermining the principles of legal certainty and the rule of law in the digital sphere.

3.5. Legislation on Internet Blocking

Uzbekistan has an actively applied legislative framework allowing state bodies to block internet resources.²⁵ Blocking is carried out on the basis of decisions of authorized bodies and can be caused by various reasons, including the dissemination of information recognized as prohibited by legislation, as well as violation of personal data legislation requirements, in particular regarding the localization of data of Uzbek citizens on the territory of the country.²⁵

The system of blocking internet resources is one of the key tools of state control over the information space in Uzbekistan. The opacity of procedures for making blocking decisions, broad and not always clearly defined grounds for such actions, and limited opportunities for their effective contestation create conditions for arbitrary restriction of access to information

and suppression of opinions that do not coincide with the official position. The legislation, in particular Resolution of the Cabinet of Ministers No. 707¹⁸⁰ and Article 12¹ of the Law “On Informatization”,¹²⁰ grants state bodies such as Uzkomnazorat and AIMK²⁵ significant powers to block sites on the basis of very general criteria of “prohibited information”. The lack of effective judicial oversight at the stage of making a blocking decision and the opacity of maintaining registries of blocked resources¹⁵³ make this system vulnerable to abuse and use for political censorship rather than solely combating truly illegal content.

3.5.1. Legislation

The main regulatory legal act regulating the procedures for blocking internet resources in Uzbekistan is Resolution of the Cabinet of Ministers No. 707 of 5 September 2018 “On measures for further improvement of information security in the global information network Internet”.¹²² This resolution approved the “Regulation on the procedure for restricting access to websites and (or) webpages of the global information network Internet containing information whose dissemination is prohibited by the legislation of the Republic of Uzbekistan”. This regulation details the grounds and mechanism of blocking.

The Law of the Republic of Uzbekistan “On Informatization”, in particular its Article 12¹, also contains provisions providing for the possibility of restricting access to information resources that violate the established prohibitions on disseminating certain information.¹²⁰ This article obliges website and blogger owners not to allow the use of their platforms for disseminating illegal content and provides for liability for failure to comply with these requirements.

In addition, the Law of the Republic of Uzbekistan “On Personal Data” (ZRU-547) and subsequent amendments to it, especially concerning requirements for localization of personal data of citizens of Uzbekistan on servers physically located in the territory of the country, have become the basis for blocking or restricting access to a number of popular international social networks and online services.²⁵

The legislation on blocking grants state bodies broad powers to restrict access to online content. The grounds for blocking are often formulated vaguely (for example, “information harming honor and dignity”, “information expressing disrespect to society, the state”, “propaganda of war, violence, terrorism, religious extremism, separatism and fundamentalism”, etc.), which creates the risk of their arbitrary interpretation and application.¹²⁰ The requirement for localization of personal data, the non-fulfilment of which led to the blocking of a number of social networks,²⁵ demonstrates how technical and regulatory requirements can be used as a tool to exert pressure on international internet platforms and potentially restrict access to them.

3.5.2. Blocking Procedures

The procedure for blocking internet resources in Uzbekistan is described in detail in Resolution of the Cabinet of Ministers No. 707 of 5 September 2018.¹⁸⁰ The Center for Mass Communications under the Agency for Information and Mass Communications (AIMK) and the Inspection for Control in the Sphere of Informatization and Telecommunications (“Uzkomnazorat”) play a key role in this process.

The process usually includes the following stages:

1. Monitoring and identification of prohibited information: The Center for Mass Communications under AIMK monitors internet resources for the presence of information whose dissemination is prohibited by the legislation of Uzbekistan. Monitoring can be both proactive and based on complaints from individuals and legal entities.¹⁸⁰
2. Expertise and conclusion: If potentially prohibited information is detected, the Center for Mass Communications prepares an appropriate conclusion. To conduct the examination, the Center may involve the Expert Commission on Information and Mass Communications.¹⁸⁰
3. Entry into the Register: Upon confirmation of the presence of prohibited information, the identification data of the internet resource (website or webpage) are entered by the Center for Mass Communications into the “Register of information resources of the global information network Internet containing prohibited information” (hereinafter – the Register).¹⁸⁰ The Register also indicates the basis for inclusion (corresponding conclusion or decision).
4. Access restriction: The Ministry of Digital Technologies (through “Uzkomnazorat”) is obliged to take organizational and technical measures to restrict access to the internet resource included in the Register within 12 hours from the moment of its inclusion.¹⁸⁰ When attempting to access a blocked resource, users should be shown a notification that the resource is included in the Register, with contact information for appeals.¹⁸⁰
5. Notification of the resource owner: The owner of the website, webpage or messenger, as well as the blogger on whose resource the prohibited information is posted (including user comments), is sent a notification requiring the removal of this information within 24 hours from the moment of receipt of the notification.¹⁸⁰
6. Consequences of failure to comply with the requirement to remove: If the prohibited information is not removed by the owner within the prescribed period, access to the resource is restricted. The Agency for Information and Mass Communications or the Center for Mass Communications may also apply to the administrator of the social network or messenger with a demand to remove the content or file a lawsuit.¹⁸⁰

This blocking procedure is predominantly administrative in nature, with limited opportunities to challenge the decision before the actual blocking of the resource. The short deadlines

provided for content removal (24 hours) and the opacity of the work of expert commissions issuing conclusions on the prohibited nature of information create significant pressure on internet resource owners and can contribute to self-censorship. The decision to include in the register is made by an administrative body (Center for Mass Communications), and technical blocking is carried out by another state body (Uzkomnazorat). The possibility of judicial appeal, as a rule, arises post factum, which reduces its effectiveness as a preventive measure against unjustified blocking.

3.5.3. Registries of Blocked Internet Resources

In Uzbekistan, there are several official registries related to restricting access to information on the internet and monitoring compliance with legislation in the digital sphere:

1. Register of information resources of the global information network Internet containing prohibited information: This register is maintained by the Center for Mass Communications under the Agency for Information and Mass Communications (AIMK) in accordance with Resolution of the Cabinet of Ministers No. 707 of 5 September 2018.¹⁸⁰ Websites and their individual pages on which information whose dissemination is prohibited by the legislation of Uzbekistan has been identified are entered into this register. Inclusion in this register is the basis for subsequent blocking of access to the resource by internet providers. Access to the data of this register is provided to state authorities and management bodies within their powers, as well as to legal entities and individuals upon their requests concerning information resources belonging to them.¹⁸⁰ However, public, open access to the entire list of blocked resources is generally absent, which hinders public control and assessment of the scale of blocking.
2. Register of violators of the rights of personal data subjects: This register is maintained by the Inspection for Control in the Sphere of Informatization and Telecommunications (“Uzkomnazorat”) in accordance with Resolution of the Cabinet of Ministers No. 707 (taking into account subsequent changes concerning data localization).¹²² Owners and (or) operators of personal data databases that have violated the legislation on personal data, in particular the requirements for collecting, systematizing and storing personal data of citizens of the Republic of Uzbekistan on technical means physically located in the territory of the Republic of Uzbekistan, are entered into this register. Inclusion in this register may also serve as grounds for restricting access to the relevant internet resources.
3. List of internet resources recognized as extremist and prohibited for distribution by the Supreme Court: The Supreme Court of Uzbekistan periodically publishes an updated list of internet materials and resources (pages in social networks, channels in messengers, websites) that have been recognized as extremist and, accordingly, prohibited for distribution in the country.¹⁵³ The decision to prohibit such resources is

made by the Supreme Court on the basis of submissions from authorized bodies (Committee on Religious Affairs, State Security Service, Ministry of Internal Affairs, AIMK). This list is public, but its completeness and timeliness of updates may raise questions. As of January 2025, this list included hundreds of pages and channels on Facebook, Telegram, Instagram, YouTube, Odnoklassniki, TikTok, as well as individual websites and applications.¹⁵³

Despite the existence of these official registries, the process of their formation and criteria for including resources are not always fully transparent. The lack of an easily accessible, unified and constantly updated public list of all blocked resources makes it difficult for citizens, researchers and human rights defenders to track the scale of internet censorship in the country and challenge unjustified blocking.

In addition to official registries, information about internet resource blocking in Uzbekistan is also collected and analyzed by various non-governmental organizations and research projects that monitor internet freedom. These unofficial sources often provide more timely and independent assessment of the situation with censorship.

One of the key such projects is the Open Observatory of Network Interference (OONI). OONI is a global project that develops free software (OONI Probe) for measuring various forms of internet censorship, including website blocking, restriction of access to messengers and censorship circumvention tools. The collected OONI data are published in open access and available for analysis through the OONI Explorer platform.²⁰⁴ OONI regularly publishes reports and data concerning Uzbekistan, identifying cases of blocking news sites, social networks, human rights resources and messaging applications such as Signal.²⁵ OONI data allow tracking the dynamics of blocking, the methods of censorship used (for example, DNS blocking, TCP/IP blocking, HTTP blocking) and their prevalence on the networks of various internet providers in the country.

International human rights organizations such as Freedom House in its annual “Freedom on the Net” reports,¹⁴ Amnesty International²⁰⁰ and Human Rights Watch³⁸ also regularly cover the situation with blocking and internet censorship in Uzbekistan, often referring to OONI data and other independent sources. Their reports provide context and analysis of violations of digital rights related to blocking.

The organization Access Now, within its #KeepItOn campaign, tracks cases of deliberate internet shutdowns (shutdowns) worldwide, including Uzbekistan.¹⁴⁹ Their reports document cases of complete or partial cessation of internet access, especially during politically significant events or protests.

Although these unofficial registries and reports do not have the legal force of official lists, they play an important role in ensuring transparency and accountability in matters of internet censorship, providing the public and the international community with alternative sources of information about the state of digital freedoms in the country. Their work helps to identify trends, scale and methods of blocking that may not be fully reflected in official statements of the authorities.

3.5.4. Development of Blocking

Analysis of data from the Open Observatory of Network Interference (OONI) and reports of human rights organizations for the period from 2019 to 2025 shows a complex and dynamic picture of internet censorship in Uzbekistan.

In 2019, Freedom House noted some “opening” of the online space, when access was restored to many previously blocked international news sites and human rights organization resources, marking a departure from almost 15 years of policy of blocking independent voices.³⁹ However, in the same year OONI recorded signs of blocking of various resources, indicating the preservation of censorship mechanisms.²⁰⁴

In 2020, Freedom House again noted a slight improvement in internet freedom, but emphasized that the authorities retain control over ICT infrastructure.⁶⁴ During this period, phishing attacks on human rights defenders aimed at installing spyware were reported.⁶⁴

2021 was marked by increased pressure on online platforms. In April 2021, amendments to the Law “On Personal Data” were adopted requiring localization of data of Uzbek users in the country. Failure to comply with this requirement led to the State Inspection for Control in the Sphere of Informatization and Telecommunications (“Uzkomnazorat”) restricting access in July and November 2021 to a number of popular social networks and messengers, including Skype, Twitter, TikTok, VKontakte and WeChat.²⁵ OONI also reported the blocking of the Signal messenger in Uzbekistan from April to September 2021, presumably using Deep Packet Inspection (DPI) technology.²⁵ Access Now also noted these blocking, pointing to the inconsistency of the authorities’ censorship policy.²⁰³

In 2022, the situation with internet freedom, according to Freedom House, deteriorated, mainly due to measures taken by the authorities in response to protests in Karakalpakstan in June–July.²⁵ During the protests, the authorities restricted access to mobile and fixed internet in the region, citing the need to prevent the spread of “fake news”.²⁵ This event became a significant shutdown. In August 2022, the Agency for Information and Mass Communications (AIMK) announced the unblocking of Twitter, VKontakte and WeChat, but TikTok remained blocked.²⁵ OONI continued to record access anomalies to various resources.

In 2023–2024, according to Freedom House, there was some improvement in internet freedom, as the authorities did not resort to large-scale internet shutdowns as in 2022, and there was growth in penetration and internet speed indicators.²⁵ However, Uzbekistan was still rated as one of the countries with the worst internet freedom in the world due to arbitrary arrests for online criticism, routine site blocking and excessive surveillance. In May 2024, arrests were reported of individuals who posted materials related to protests in Karakalpakstan on TikTok.²⁵

OOONI and human rights organization reports indicate the use of various blocking methods, including DNS manipulation, IP address blocking and the use of DPI for traffic filtering.²⁰⁵ Not only social networks and messengers but also independent media sites, human rights organizations and censorship circumvention tools were subject to blocking.

Conclusion: The dynamics of blocking in Uzbekistan in the period 2019–2025 is characterized by a wave-like nature: periods of some easing of control were replaced by its tightening, especially in response to political events or within the framework of implementing new legislative requirements (for example, on data localization). Despite statements about liberalization and improvement of access indicators, the state retains and actively uses technical and legal tools to control the information space, which significantly limits the digital rights of citizens. The practice of large-scale internet shutdowns in crisis situations, as in Karakalpakstan, is a particularly alarming signal.

4. Human Rights Violations on the Internet

In Uzbekistan, various human rights violations on the internet were recorded in the period from 2019 to 2025. Despite some reforms and statements by the authorities about striving for greater openness, the online space remained under significant state control. The main violations included restriction of access to information through site blocking and internet shutdowns, persecution of citizens for their online statements, as well as pressure on independent media and non-governmental organizations conducting activities on the internet.²⁵

These actions created an atmosphere of self-censorship and limited opportunities for free expression of opinions, obtaining and disseminating information, as well as for civic activism in the digital environment. Human rights organizations have repeatedly expressed concern about the non-compliance of Uzbekistan's legislation and law enforcement practice with international human rights standards, in particular the right to freedom of expression and access to information.

4.1. Internet Shutdowns Ordered by Authorities

Cases of internet shutdowns and restriction of communication services by decision of the authorities were recorded in Uzbekistan, especially in the context of mass protests and emergency situations. The most significant and widely covered incident was the internet shutdown in the Republic of Karakalpakstan in June–July 2022.

- Events in Karakalpakstan (June–July 2022):
 - Cause: Mass protests in Nukus and other cities of Karakalpakstan against the proposed amendments to the Constitution of Uzbekistan, which provided for depriving Karakalpakstan of its sovereign status and the right to secede from Uzbekistan.²⁵
 - Actions of the authorities: In response to the protests, the authorities of Uzbekistan introduced a state of emergency in the territory of Karakalpakstan from 3 July to 2 August 2022.⁴⁰ Even before the official introduction of the state of emergency, starting approximately from 26 June 2022, restrictions on access to mobile internet began in the region.²⁵ Subsequently, access to fixed-line internet was also restricted.⁴³ Shutdowns and restrictions continued for almost a month, until the end of July 2022.¹⁴⁹
 - Consequences: The internet shutdown seriously hindered obtaining and disseminating information about the events, both within the region and beyond. This created an information vacuum that the authorities, according to critics, used to control the narrative and suppress protests.²⁵ Residents faced the inability to contact relatives, access online services, including banking services (ATMs and terminals did not work).⁴³ Human rights organizations expressed concern that the internet shutdown impeded monitoring of the human rights situation and documenting possible violations by security forces.⁴¹
 - Sources: Freedom House,²⁵ CIVICUS Monitor,⁴⁰ Wikipedia (with references to news reports),⁴¹ Access Now,¹⁴⁹ Gazeta.uz,⁴³ Asiaplustj.info.⁴²

In addition to this large-scale shutdown, the practice of temporarily disabling mobile internet and text messaging services in areas where entrance examinations to higher educational institutions are held to prevent cheating was also reported.²⁵ Although these shutdowns are local and temporary in nature, they are also an example of restriction of access to communication by decision of the authorities.

These cases demonstrate the willingness of the authorities of Uzbekistan to use internet shutdown as a tool of control in situations they consider a threat to public order or national security, which raises serious concerns about the observance of digital rights of citizens.

4.2. Criminalization of Online Statements

In Uzbekistan, in the period 2019–2025, numerous cases of criminal and administrative prosecution of citizens for their statements on the internet were recorded, including posts on social networks, comments and publications on online platforms. The authorities actively used legislation on defamation, insult (including of the president), dissemination of false information and extremism to prosecute critics, bloggers and ordinary users.

Some of the most mentioned cases:

- The case of Otabek Sattoriy (blogger): Otabek Sattoriy, known for his critical reports on corruption and social problems in Surkhandarya region, was arrested in January 2021 and sentenced in May 2021 to 6.5 years' imprisonment on charges of extortion and defamation. Many human rights organizations considered his case politically motivated, aimed at suppressing his journalistic activity. In February 2024 he was released early.⁴⁰
- The case of Fozilxo'ja Arifxo'jaev (religious blogger): In January 2022, Arifxo'jaev, known for his critical statements against some religious figures, was sentenced to 7.5 years' imprisonment on charges of storing on his mobile phone "materials threatening public security and public order".⁶³
- The case of Sobirjon Babanazarov (blogger): In February 2022, a court in Khorezm region sentenced Babanazarov to three years' imprisonment for insulting President Mirziyoyev. This was one of the first cases brought under the March 2021 amendments to the Criminal Code that criminalized such statements.⁶³
- The case of Olimjon Haydarov (blogger): Popular blogger Olimjon Haydarov, who covered social problems and cases of corruption, was arrested in July 2023 and sentenced in December 2023 to eight years' imprisonment on charges of extortion, defamation and insult. Haydarov rejected the charges as politically motivated.²²¹ Previously, in December 2022, he had already been fined for online reports on the energy crisis.²²¹
- Persecution of participants in the Karakalpakstan protests: After the protests in Karakalpakstan in July 2022, dozens of people, including journalists, bloggers and activists, were detained and brought to criminal responsibility for their alleged role in organizing or participating in "mass riots", as well as for online activity related to criticism of constitutional amendments.
 - Dauletmurat Tazhimuratov (lawyer and blogger): Was accused of encroachment on the constitutional order and other serious crimes and sentenced to 16 years' imprisonment in January 2023. Tazhimuratov reported being tortured in detention.⁴⁰ His sentence was upheld in June 2023.⁴⁰
 - Lolagul Kallikhanova (journalist): Was convicted in the same case as Tazhimuratov and received a suspended sentence.⁴⁰

- Parahat Musapbarov: In May 2024 sentenced to six years' imprisonment for alleged membership in the banned party "Alga Karakalpakstan" on the basis of his "confession" in pre-trial detention (which he renounced in court) and comments on social networks.²⁰⁰
- In May 2024, several individuals were reportedly arrested for posting speeches by Dauletmurat Tazhimuratov or videos calling for his release on social networks, including TikTok.²⁵
- The case of Salim Inomzoda (journalist): In July 2024, an ethnic Tajik journalist was arrested and charged with disseminating "information threatening public security" for reposting a traditional Tajik song in Facebook in 2022, which the authorities considered "separatist".²⁰⁰
- The case of Nafosat Olloshkurova (blogger): Was subjected to forced psychiatric treatment in 2019 after covering a protest march. She was released but continued to face pressure.²¹⁷
- The case of Miraziz Bazarov (blogger): Was subjected to attacks and persecution for his LGBT activism and critical posts. Amnesty International called for an end to his persecution.²¹⁷

These and many other cases testify to the systematic use of criminal and administrative legislation to suppress freedom of speech on the internet. Charges are often vague in nature, and judicial processes do not always comply with international standards of fair trial. This creates an atmosphere of fear and self-censorship among online activists, journalists and ordinary citizens.

4.3. Persecution of Media and NGOs

In the period from 2019 to 2025, mass media (media) and non-governmental non-profit organizations (NGOs) in Uzbekistan, especially those that tried to cover sensitive topics or criticize the actions of the authorities on the internet, faced various forms of pressure and persecution. This included blocking their websites, legal prosecution of journalists and NGO staff for their online publications, as well as creating generally unfavorable conditions for independent activity.

- Blocking of media and NGO sites: Independent online media and websites of human rights organizations were periodically blocked in Uzbekistan. Although in certain periods there were some "thaws" with unblocking of part of the resources,³⁹ the overall trend indicated the preservation of state control over the availability of information. For example, Freedom House and OONI have repeatedly reported blocking of news sites and resources criticizing the government.²⁵

- Persecution of journalists and bloggers cooperating with media/NGOs: Journalists and bloggers working with independent media or NGOs often became objects of persecution for their publications on the internet. Charges could include defamation, insult, dissemination of false information or even more serious accusations such as extremism or encroachment on the constitutional order, as was the case with journalists and activists who covered the events in Karakalpakstan.⁴⁰ These cases were often characterized by the absence of due legal procedure and raised concerns about their political motivation.³⁸
- Restriction of NGO activities: Legislation and practice regarding NGOs in Uzbekistan remain restrictive. This indirectly affects their online activities, as NGOs engaged in human rights or critical analysis of government policy may face difficulties in registration, funding and carrying out their activities, including conducting information campaigns on the internet. International NGOs also reported restrictions on their monitoring and reporting activities in the country.²⁰⁰
- Pressure through legislation: Amendments to legislation, such as data localization requirements²⁵ or tightening liability for disseminating certain information on the internet,⁶³ created additional pressure on media and NGOs, forcing them to work in conditions of legal uncertainty and risk of sanctions.

Examples of specific cases of persecution of journalists and bloggers who often cooperated with independent media or covered human rights topics are given in section 4.2 (for example, cases of Otabek Sattoriy, Dauletmurat Tazhimuratov, Lolagul Kallikhanova). These cases illustrate how the authorities react to critical publications on the internet that affect the interests of the state or individual officials. International organizations such as the Committee to Protect Journalists (CPJ) and Reporters Without Borders (RSF) also regularly report pressure on journalists in Uzbekistan, although specific reports on internet persecution for the entire period 2019–2025 require detailed study of their archives.²²³

Overall, despite some positive changes in the media sphere after 2016, persecution of media and NGOs for their activities on the internet remains a serious problem in Uzbekistan, limiting freedom of speech and access to independent information.

5. Civil Society in the Field of Internet Governance

Civil society in Uzbekistan engaged in internet governance and protection of digital rights is at the formation stage and faces significant challenges. Although steps are being taken in the country to develop the digital economy and e-government, the space for independent civic

activity in this area remains limited due to strict state control over the information space and the activities of NGOs.³⁸

There are individual experts, lawyers and activists who raise issues of digital rights, internet freedoms and the need to reform legislation. However, their activities are often individual in nature or carried out within small informal groups. There are few formally registered NGOs that specialize exclusively in protecting digital rights and internet governance and are completely independent from the state. The authorities tend to support or create pro-government organizations or initiatives that promote the official agenda in the field of ICT, focusing on technological development rather than human rights aspects. Nevertheless, discussion of issues of media literacy, information security and ethics on the internet is gradually finding its place, including with the support of international organizations.²²⁵

5.1. Organizations

In Uzbekistan, there is a limited number of organizations that explicitly declare their goal to protect citizens' rights on the internet and deal with issues of internet governance from a human rights perspective. Most organizations working in the ICT field are focused on technical development, education, or promotion of state initiatives in the field of digitalization.

Nevertheless, several directions and types of organizations can be identified that in one way or another touch upon issues of digital rights:

1. Human rights organizations (general profile): Some of the operating in the country or working on Uzbekistan international and local human rights organizations include in their agenda issues of freedom of speech on the internet, persecution of online activists, and blocking of resources. However, their main specialization may be broader than just digital rights. Examples of such organizations are often mentioned in reports of Human Rights Watch³⁸, Amnesty International²⁰⁰ and others. Their activities include monitoring, documenting violations, and advocacy.
2. Media organizations and associations of journalists: Organizations supporting independent media and journalists may deal with issues of press freedom in the online space, protection of journalists from persecution for their internet publications, and problems of access to information. An example is the Center for the Development of Modern Journalism of the Republic of Uzbekistan, which, according to the report on the Media Ayvon-2025 forum, deals with issues of information security and media literacy.²²⁵ The Clinic for Legal Support of Journalists and Bloggers is also mentioned in the context of monitoring the media space.²²⁵

3. Expert and analytical centers: Some research and analytical structures may conduct analysis of legislation and policy in the field of ICT and the internet, however, their independence and criticality towards state policy may vary.
4. Individual lawyers and activists: A significant part of the work on protecting digital rights is performed by individual lawyers, human rights defenders, and bloggers who provide legal assistance, highlight cases of violations, and advocate for reforms. Their activities are often not institutionalized.
5. Projects supported by international organizations: Various international organizations (for example, UNDP, OSCE, UNESCO) implement projects in Uzbekistan aimed at developing ICT, media literacy, e-government, and the rule of law. Within these projects, issues of digital rights may also be addressed.²²⁵

Finding direct links to websites of independent Uzbek NGOs specializing exclusively in protecting digital rights in the provided materials is difficult. This reflects the overall situation with limited space for the activities of independent civil society in the country.

5.2. VPN and Means of Bypassing Blocks

The use of VPN (Virtual Private Network) and other means of bypassing blocks is a common practice among internet users in Uzbekistan for accessing blocked resources such as social networks, news sites, and messengers.²⁰³ This is related to periodic and sometimes long-term blocking of popular platforms by state bodies.

Although there is no direct legislative prohibition on the use of VPN for personal purposes by individuals in Uzbekistan, apparently, the authorities periodically express concern about their use and take steps to restrict access to the VPN services themselves. Blocking VPN services is technically complex but possible, and reports of such attempts or actual blocking of VPN protocols or VPN provider sites periodically appear. Liability for assisting in downloading VPN applications or for teachers not preventing their use by students, as reported in the context of Turkmenistan, but with concerns about similar trends in Uzbekistan²⁰³, indicates possible pressure on users and distributors of such technologies.

5.2.1. Status of VPN Services

The official legal status of VPN services in Uzbekistan is ambiguous. There is no direct legislative prohibition on the use of VPN services by individuals for personal purposes found in open sources. However, the authorities periodically take actions aimed at restricting access to the VPN services themselves or their sites, which indicates a negative attitude towards such technologies as means of bypassing state censorship.

Legislation regulating the internet and information security, such as the Law "On Informatization"¹²⁰ or Resolution of the Cabinet of Ministers No. 707¹²², does not directly mention VPN. However, general provisions on the inadmissibility of disseminating prohibited information and obligations to remove it may indirectly be used to justify measures against tools that facilitate access to such information.

Reports of aggressive blocking of censorship circumvention tools in neighboring Turkmenistan, including persecution of those who help install VPN, have been made, and concerns have been expressed that Uzbek authorities may move in the same direction.²⁰³ Although specific laws regulating the use, advertising, and sale of VPN in Uzbekistan are not indicated in the provided materials, the overall policy of control over the information space suggests that activities related to providing mass access to blocked resources through VPN may be considered undesirable by the authorities.

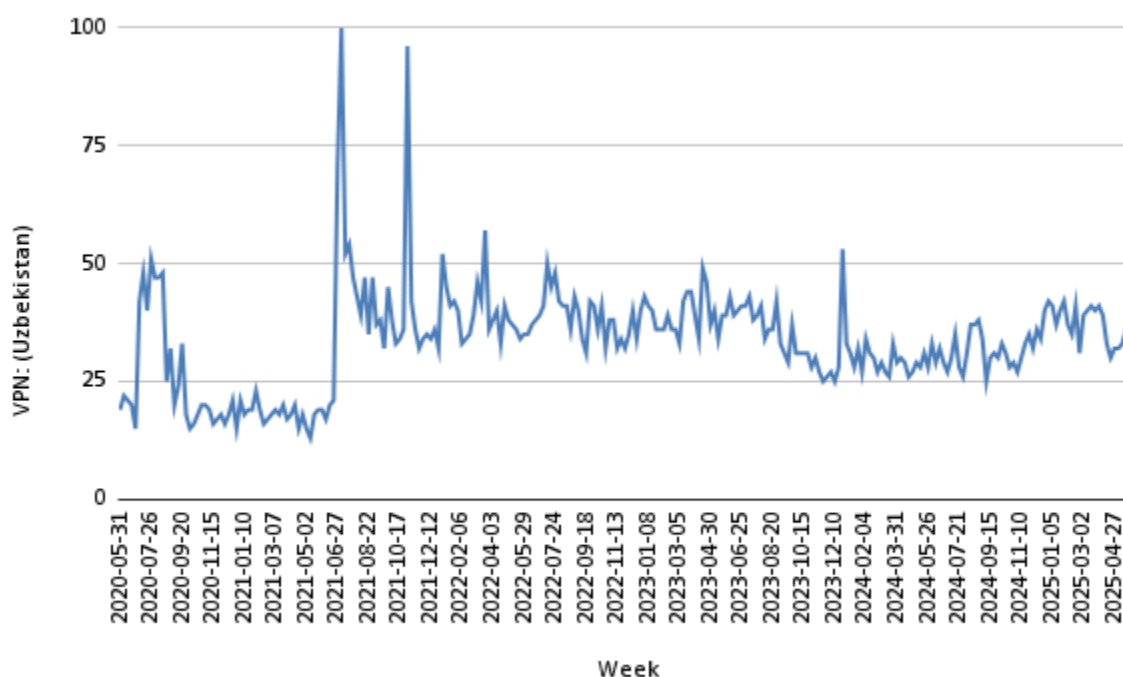
5.2.2. Number of VPN Users

Accurate data on the number of VPN users in Uzbekistan and the dynamics of this indicator by years (2019–2025) are absent in the provided materials. Collecting such statistics is difficult for several reasons: the anonymous nature of VPN use, the lack of official accounting of VPN service users, and users' reluctance to publicize the use of such tools due to fears of possible attention from the authorities.

Nevertheless, indirect data and reports from human rights organizations indicate widespread use of VPN in the country, especially during periods of blocking popular social networks and news resources.²⁰³ For example, after the blocking of a number of social networks in 2021 due to non-compliance with the data localization law²⁵, many users resorted to VPN to maintain access to these platforms.

Information about blocking the VPN services themselves also periodically appears. Authorities may attempt to block IP addresses of known VPN servers or their websites, as well as use more sophisticated methods such as DPI (Deep Packet Inspection) to detect and block VPN traffic. However, the effectiveness of such blocks is often limited due to the constant emergence of new VPN services and traffic masking technologies.

Graph 8: Dynamics of Search Queries about VPN in Uzbekistan (2015–2025)



Source: trends.google.com

The graph demonstrates unstable, "reactive" interest in VPN services from Uzbek users. Instead of smooth growth, we see a relatively even baseline level of interest interrupted by sharp and very high spikes. This indicates that mass demand for VPN arises not due to a constant need for anonymity, but as a reaction to specific events related to restrictions on access to internet resources.

The most significant peaks on the graph fall in August–October 2021. These spikes, with a high degree of probability, are directly related to the blocking of popular social networks in the country. During this period, Uzbekistan experienced mass problems with access to platforms such as TikTok, Twitter, VKontakte, and Skype. Official bodies explained this by "violation of personal data legislation", which effectively meant blocking. As soon as users faced the inability to access familiar social networks, they began to massively search for tools to bypass restrictions, which is reflected in the form of peak values on the Google Trends graph.

Thus, the graph of interest in VPN can be considered as a kind of indicator of internet freedom in the country. Each significant peak on it most likely coincides in time with another wave of blocking or failures in the operation of popular platforms. The steadily elevated background interest after 2022 may also indicate that some users, having once encountered blocking,

continue to use VPN on a permanent basis, fearing a repetition of the situation or for access to resources that remain permanently inaccessible.

5.2.3. Cases of Persecution for Using VPN

In the provided materials, there are no direct reports of mass or systematic persecution of individuals solely for the fact of using VPN for personal purposes in Uzbekistan in the period 2019–2025. However, the overall atmosphere of control over the internet and persecution for online activity creates concerns among users.

More stringent measures have been reported in neighboring Turkmenistan, where authorities persecute not only those who help install VPN, but also, for example, teachers who did not prevent the use of VPN by students.²⁰³ Although direct analogs of such practice in Uzbekistan in the specified period are not documented in the provided sources, concerns about possible tightening of policy regarding VPN exist.

Persecution may be directed at organizations or individuals providing VPN services or actively contributing to bypassing blocks if their activities are deemed to violate legislation (for example, facilitating access to prohibited information). However, specific cases of such persecution are not detailed in the provided materials.

The main focus of persecution in the online sphere in Uzbekistan was related to the content of statements, not to the fact of using tools for access to information (see section 4.2).

5.2.4. Monitoring of Blocks

Monitoring of internet resource blocks in Uzbekistan is carried out by several organizations and projects, both international and possibly local (although information about the latter is less available).

- Open Observatory of Network Interference (OONI): It is a key resource for monitoring internet censorship worldwide, including Uzbekistan. OONI uses OONI Probe software to conduct tests for blocking websites, messengers, and censorship circumvention tools. Data is collected from volunteers and published in open access on the OONI Explorer platform.²⁰⁴ OONI reports and measurement data regularly highlight the situation with blocks in Uzbekistan, identifying blocked resources and used censorship methods.²⁵
 - Digest of OONI messages (2019–2025):
 - 2019: Blocks of various resources were recorded.²⁰⁴
 - 2020–2021: Blocking of the Signal messenger using DPI was noted.²⁵ In November 2021, a large-scale, though short-term, blocking of

Facebook, Instagram, LinkedIn, Telegram, YouTube in addition to previously blocked Twitter, TikTok, VKontakte, Skype, WeChat due to the data localization law was recorded.²⁰³

- 2022: In June-July during protests in Karakalpakstan, there were large-scale shutdowns of mobile and fixed internet.²⁵ In August, part of the previously blocked social networks (Twitter, VKontakte, WeChat) was unblocked, but TikTok remained inaccessible.²⁵
- 2023-2024: Freedom House, often referring to OONI data, noted ongoing blocks and the overall repressive environment, despite the absence of large-scale shutdowns similar to Karakalpak.²⁵ OONI continues to publish annual reviews of its activities, where significant censorship events may be mentioned, but specific country reports on Uzbekistan for each year require a separate search on their platform.²⁰⁷
- Freedom House: In its annual "Freedom on the Net" reports, it provides a detailed analysis of the state of internet freedom in Uzbekistan, including information on blocks, based on various sources, including OONI data.¹⁴
- Access Now (#KeepItOn): Monitors and documents cases of deliberate internet shutdowns (shutdowns).¹⁴⁹ Their reports are important for understanding the most radical forms of internet censorship.
- Other human rights organizations: Amnesty International, Human Rights Watch also report on blocks in the context of the overall human rights situation.³⁸

These resources provide valuable information for tracking the dynamics and methods of internet censorship in Uzbekistan, supplementing the official picture, which is often incomplete or does not reflect the real state of affairs.

6. Conclusion

Analysis of the state of the internet and digital rights in Uzbekistan for the period from 2019 to 2025 reveals a complex and contradictory picture. On the one hand, there is significant progress in the development of internet infrastructure, growth in the number of users, increase in access speed, and active introduction of digital technologies in various spheres of life, which is supported by the state strategy "Digital Uzbekistan – 2030". These positive changes create a basis for expanding citizens' access to information, education, economic opportunities, and participation in public life.

On the other hand, the state retains and actively uses significant levers of control over the information space. The legislation contains broad and sometimes vague formulations that allow restricting freedom of speech on the internet, persecuting citizens for online statements, and blocking access to internet resources. The practice of shutting down the

internet in crisis situations, as was the case in Karakalpakstan, demonstrates the authorities' readiness to resort to extreme measures to control information flows. The dominance of state companies in the telecommunications services market, despite declared steps towards demonopolization, also limits competition and may contribute to the preservation of state influence. The activities of independent media and NGOs in the online space face pressure, and the use of VPN and means of bypassing blocks, although widespread, is associated with certain risks.

Thus, in Uzbekistan, the human right to access information and free expression of opinions on the internet is not fully realized. There is a clear gap between the declared goals of developing a digital society and the actual restrictions imposed in the interests of state security and control.

Forecast of the development of events:

- Neutral scenario: Preservation of current trends. The state will continue to invest in the development of digital infrastructure and electronic services, while maintaining the existing level of control over content and online activity. Cases of blocks and persecution for statements on the internet will arise periodically, but there will be no large-scale repressions or, conversely, significant liberalization. The level of self-censorship will remain high. Slow implementation of IPv6 and preservation of the dominant role of state companies will restrain technological development and competition.
- Positive scenario (easing of regulation, liberalization): The authorities, realizing that excessive control hinders innovation and economic growth, as well as under pressure from the international community and internal demand for greater freedoms, will begin real liberalization of the internet sphere. This may include:
 - Revision of legislation towards narrowing the grounds for blocks and criminal prosecution for online statements, bringing it into line with international standards of freedom of speech.
 - Ensuring real independence of the judiciary in considering internet-related cases.
 - Creation of transparent and accountable mechanisms for internet regulation, including the activities of the new "independent" telecommunications regulator.
 - Stimulation of real competition in the internet services market, reduction of the role of state monopolies.
 - Cessation of the practice of arbitrary blocks and shutdowns.
 - Active involvement of civil society in internet governance issues. Such a scenario would lead to a significant improvement in the situation with digital

rights and would contribute to a fuller realization of the internet's potential for the country's development.

- Negative scenario (strengthening of censorship, "tightening the screws"): In response to internal or external challenges (economic difficulties, social tension, geopolitical instability), the authorities may follow the path of further tightening control over the internet. This may be expressed in:
 - Adoption of new, even more repressive laws restricting freedom of speech and anonymity on the network.
 - Strengthening technical means for blocks and surveillance, including more active fight against VPN and other means of bypassing censorship.
 - Increasing cases of persecution and arrests of bloggers, journalists, and ordinary users for critical statements.
 - Possible introduction of stricter rules for registering users of online services or identifying commentators.
 - Expansion of the practice of internet shutdowns under the pretext of ensuring security. Such a development would lead to further narrowing of the space for freedom of speech, strengthening self-censorship, and international isolation of the country in the digital sphere.

The probability of each scenario depends on many internal and external factors, including the political will of the country's leadership, the economic situation, the activity of civil society, and the geopolitical situation in the region.

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