Youth and Digital Technology in Central Asia: A Comparative Analysis of Uzbekistan, Kazakhstan, Kyrgyzstan, and Tajikistan

Farrukh Irnazarov

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Executive Summary

Central Asian youth between the ages of 15 and 29 are driving the region's digital transformation, though opportunities are unequal across the region. This comparative study of Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan draws on a 468-respondent youth survey and extensive secondary data to map five dimensions of the online landscape.

Access and Devices. Mobile internet has eclipsed all other channels: Kazakhstan, Kyrgyzstan, and Uzbekistan report 89 to 93 percent general adoption rate, while Tajikistan lags at 57 percent. Registered mobile service lines exceed population numbers in every country—reaching 159 percent in Kyrgyzstan—indicating that smartphones are the primary tool for study, work, and leisure.

Platforms and Culture. Telegram is the region's primary newswire, while Instagram and YouTube shape identity and TikTok dominates leisure time. $\sqrt{\text{now trails social media as the main news source for Central Asian youth.}}$

Socio-Economic Payoff. Digital skills open doors to remote work and start-ups — Kazakh ventures drew \$71 million in venture capital and Uzbek ventures drew \$17 million in 2024 — yet rural youth still face slow service and limited access to devices, widening the divide.

Literacy Gap. Nine in ten youths say accuracy matters, but barely half fact-check routinely, leaving them exposed to propaganda and fake news, despite growing efforts by non-governmental organizations (NGOs) to provide education on the topic.

Structural Limits. Cheap mobile data masks deeper barriers: expensive fixed broadband, patchy rural coverage, and renewed censorship hamper innovation and voice.

Country Snapshots. Kazakhstan leads the region in digital infrastructure, but risks repeat shutdowns; Uzbekistan saw growth after 2016 yet still grapples with red tape; Kyrgyzstan's once-vibrant online sphere is tightening; and Tajikistan remains the most constrained.

What Works. The priorities are clear: complete last-mile broadband infrastructure, support an open and free internet, embed media-savvy curricula into education, and streamline start-up regulation and funding—especially for young women and rural creators. Achieving these goals will turn today's mobile-native generation into the region's next growth engine.

Introduction

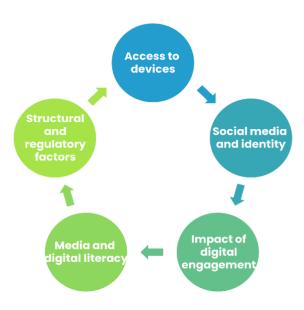
Central Asia's youth population is rapidly moving online, transforming how societies communicate, learn, and participate in civic life. In Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan, youth aged 15 to 29 are at the forefront of adopting digital technology. These four countries share historical and cultural ties but differ in economic development and governance, producing both common trends and country-specific patterns in youth digital engagement.

This study examines five interrelated dimensions of how youth employ digital technology across these countries:

- 1. Access to devices and internet usage patterns;
- 2. The dominance of social media and messaging platforms and their influence on news consumption, identity construction, and civic participation;
- 3. The impact of digital engagement on education, skills development, entrepreneurship, and career path choices;
- 4. Media and digital literacy levels, particularly the gap between stated values (such as valuing fact-checking) and actual behaviors; and
- 5. Structural and regulatory factors that constrain or enable youth digital empowerment, from infrastructure and affordability to policy frameworks.

Figure 1. Dimensions of youth digital technology use in Central Asia

Dimensions of Youth Digital Technology Use in Central Asia



Drawing on a survey of 468 youth respondents from Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan, augmented by secondary research and government data, we compare similarities and differences across these four contexts. Our findings reveal how young people in Central Asia navigate the opportunities and challenges of the digital age. They also point policymakers and development partners toward ways to foster an open, inclusive, and vibrant digital ecosystem in the region. The analysis is organized thematically, with attention to country-specific nuances, and concludes with key takeaways and policy recommendations.

Research Questions

As per the comparative scope and policy focus of this study, our solutions to some core research questions define the digital behavior of youth within

the scope of digital inclusion, resilience, and empowerment objectives. These research questions are based on the initial framework of the study and include three core lines of inquiry:

- Platform Concentration and Information Diversity: How does reliance on a few dominant platforms affect news consumption diversity among digitally connected youth in Central Asia, and what does this imply about their susceptibility to misinformation? This question explores whether reliance on platforms like Telegram, Instagram, and Tik Tok narrows information diversity and amplifies propaganda or fake news, thereby weakening informational resilience and access to independent, reliable news.
- Mobile-First Digital Habits and Socio-Economic Outcomes: Through which mechanisms do mobile-first digital habits shape socio-economic effects for youth, and how are these outcomes constrained by country-specific infrastructural or regulatory barriers? This question considers whether one should expect that ubiquitous mobile internet penetration will translate into real opportunities for youth (jobs, education, startups), and how opportunities may be extinguished through such factors as coverage gaps in networks, expensive broadband, or tight regulations. This question aligns with the digital inclusion agenda (ensuring equal access opportunities) and youth empowerment objectives (leveraging digital skills for economic growth) in the region.
- The Fact-Checking Gap and Media Literacy Interventions: Why do young people in Central Asia value fact-checking in principle without practicing it in daily life, and which media-literacy interventions are best-suited to bridge this gap? This question allows us to answer the perplexing difference between intention and action regarding digital literacy: almost all the youths state that

information accuracy is important, but a vastly smaller number uses fact-checking strategies frequently. Broader knowledge of the root causes of this gap (be it cultural, educational, and/or convenience-driven) and interventions that can be used (curriculum change, campaigns, and tools) is important to establish social resilience against misinformation and to empower youth to be engaged digital citizens.

These questions address five thematic dimensions of the study—access and usage, platform influence, socio-economic impact, literacy, and structural conditions—and are closely linked to policy objectives. Together, the answers to these questions provide actionable steps that can guide policy makers toward digital inclusion, resilience against misinformation, and youth empowerment in the digital environment of Central Asia.

Access to Digital Technology: Devices, Connectivity, and Usage Patterns

Youth Connectivity and Device Ownership: Access to digital technology among young people in Central Asia has expanded dramatically in recent years, though levels vary significantly by county. The rate of internet usage is now high in Kazakhstan, Kyrgyzstan, and Uzbekistan – estimated at 89 to 93 percent in early 2025¹ – but remains considerably lower in Tajikistan at around 57 percent.²

Internet penetration (% population, 2025)

80

20

What the state of t

Figure 2. Internet penetration in Central Asia

Source: Data Reportal, 2025; Statista, 2025

¹ Statista, "Digital & Connectivity Indicators – Kazakhstan," May 21, 2025. (https://www.statista.com/outlook/co/digital-connectivity-indicators/kazakhstan), Statista, "Digital & Connectivity Indicators – Tajikistan," May 21, 2025. (https://www.statista.com/outlook/co/digital-connectivity-indicators/tajikistan)

² DataReportal, "Digital 2025: Central Asia," Datareportal, Mar 3, 2025. (https://datareportal.com/reports/digital-2025-central-asia)

Youth, as the most tech-savvy demographic, generally report higher internet usage rates than national averages. In all four countries, mobile phones are the primary gateway to the internet. Active mobile subscriptions exceed population figures in each country, reflecting the prevalence of multiple SIM cards or devices for personal, work-related, or network-optimization purposes.³ For example, Kazakhstan has 26.3 million mobile connections for 20.7 million people (128 percent of population), and Kyrgyzstan shows an even higher ratio with 159 percent of the population.⁴ As of early 2025, Uzbekistan had 33.9 million mobile subscriptions, covering 92 percent of its 36.7 million people, while Tajikistan's 10.8 million mobile connections roughly matched its population at 101 percent.⁵

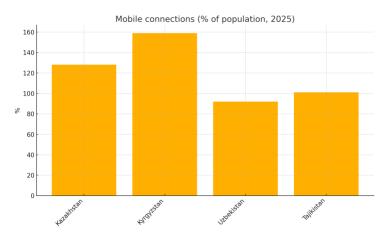


Figure 3. Mobile connections in Central Asia

Source: Data Reportal, 2025

The ubiquity of mobile phones – particularly affordable Android smartphones – has made mobile internet the default mode of connectivity

³ GSMA Intelligence, "The Mobile Economy: Central Asia 2025," 2025. (https://www.gsma.com/r/mobileeconomycentralasia2025)

⁴ DataReportal, "Digital 2025: Central Asia," Datareportal, Mar 3, 2025. (https://datareportal.com/reports/digital-2025-central-asia)
⁵ Ibid.

for youth. By contrast, personal computer ownership is far less common. As of 2020, in Uzbekistan, 19 million users accessed the internet via mobile devices and only about 3 million via computers out of 22 million total internet users. Similar patterns are evident across neighboring states. Laptops and desktops are mainly used by urban students and professionals, while most youth rely on smartphones for tasks ranging from social networking to academic research.

Urban-Rural Gaps and Infrastructure

While overall access has grown, a digital divide persists between urban centers and rural peripheries. All four countries report significantly higher connectivity in capitals and major cities compared to remote areas. In Uzbekistan, Tashkent enjoys the highest internet penetration and fiber broadband coverage, far outpacing smaller towns and rural districts. Similarly, with over 60 percent of Kazakhstan's population living in urban areas,⁷ cities like Almaty and Astana boast extensive 4G and emerging 5G networks,⁸ while mountain villages in Kyrgyzstan or highland communities in Tajikistan often have only patchy 3G service or rely on satellite links.⁹ In Tajikistan and parts of Uzbekistan, unstable electricity supply further disrupts internet availability in rural areas.

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⁶ Ministry for Development of Information Technologies and Communications (MDITC) of Uzbekistan, "Press Conference Data on Internet Users in Uzbekistan," 2020. As reported in Kun.uz, Dec 12, 2020.

⁽https://kun.uz/en/news/2020/12/12/number-of-internet-users-in-uzbekistan-exceeds-221-million)

⁷ Bureau of National Statistics of Kazakhstan, "Kazakhstan's Urban Population on the Rise," Kazinform News Agency, Feb 5, 2025; Economy.kz, "Kazakhstan on the Path of Urbanization: Demographic Snapshot and Development Prospects in 2024," Jul 1, 2024.

⁸ Ookla, "5G Boosting Overall Performance Gains in Kazakhstan," Dec 23, 2024.

⁹ TS2 Space, "Connecting the Peaks: Internet Access in Kyrgyzstan's Digital Landscape," Jun 21, 2025.

Despite ambitious government initiatives—such as Kazakhstan's "Digital Kazakhstan" and Uzbekistan's "Digital Uzbekistan 2030"—broadband quality remains heavily skewed toward urban youth. Mobile broadband coverage has improved significantly, with over 94 percent of mobile connections in Kazakhstan and 95 percent in Kyrgyzstan on 3G or higher networks, yet rural users still experience slower speeds. ¹⁰ In Uzbekistan, median mobile internet speed reached 24.7 megabits per second (Mbps) in early 2024 after a 70 percent year-on-year increase, but remote districts continue to lag. ¹¹ Affordability compounds this structural divide: while the cost of basic mobile data has dropped—a 2 gigabit (GB) package in Uzbekistan cost only 0.7 percent of gross national income (GNI) per capita in 2023. ¹² Many rural households cannot afford multiple smartphones or large data packages, leaving young people to rely on shared devices, school, or community center Wi-Fi, and intermittent connections for online access.

Devices and Screen Time

The types of devices youth use also shape their digital experience. Smartphones are nearly universal among urban youth—typically inexpensive Android models, with wealthier students in cities like Almaty or Tashkent opting for the latest iPhones—while tablets and personal computers remain secondary devices. Basic handsets have largely disappeared, while at home, smart televisions and inexpensive Android phones have blurred the line between streaming and traditional broadcast viewing.¹³ As a result, screen time has surged. In our youth survey conducted in Uzbekistan, a significant majority of respondents reported

¹⁰ TS2 Space, "Connecting the Peaks: Internet Access in Kyrgyzstan's Digital Landscape," Jun 21, 2025

 $^{^{\}mbox{\tiny II}}$ International Telecommunication Union, "The Affordability of ICT Services 2023," Geneva: ITU, 2023

¹² Ibid.

¹³ Global Web Index, "Device and Media Trends among Central Asian Youth," 2024. (https://www.globalwebindex.com/reports/device-and-media-trends-central-asia)

spending over four hours daily online, with about 30 percent saying they are online more than 6 hours a day (often multitasking on messaging apps, social media, and video streaming). Similarly, Kazakh users average around 7 hours of daily internet use, according to the survey, of which roughly 3 hours are on social media platforms. Mobile screen time dominates: young Uzbeks, for example, treat Telegram as a constant companion. A 2024 study found that a significant majority of Uzbek users spend over an hour per day on the app. ¹⁴ Peak activity tends to be in the evenings, after work or classes, when many youth go online for entertainment or socializing. 15 High mobile subscription rates suggest that many youth use multiple SIM cards to maximize connectivity-maintaining accounts with different carriers to access better data packages or coverage, or dedicating one SIM to calls and another to low-cost data. Youth in Kyrgyzstan and Tajikistan, in particular, often swap SIMs or use hotspot devices to manage costs on limited budgets. Despite these workarounds, the overall trajectory is clear: mobile-first, highengagement internet usage has become a defining feature of daily life for the region's youth.¹⁶

Demographics Driving Digital Adoption

The growing youth population in these societies underpins the rapid growth in connectivity. All four countries have very young populations: Tajikistan's median age is 22, Uzbekistan's 27, Kyrgyzstan's 25, and

 $^{\rm 14}$ "Telegram Usage Patterns among Uzbek Users: A Study of 6,000 Respondents," Insight Business Research Agency, 2024.

¹⁵ Timur Bakiyev, "Telegram User Demographics and Behavior in Uzbekistan: Analysis of 1.1 Million Users," ClickMe Agency and Social Active, 2024.

¹⁶ CABAR.asia, "SIM Card Re-Registering in Tajikistan: Hundreds of Thousands of Citizens Could Be Deprived of Mobile Connection," February 6, 2023.

⁽https://cabar.asia/en/sim-card-re-registering-in-tajikistan-hundreds-of-thousands-of-citizens-could-be-deprived-of-mobile-connection)

Kazakhstan's 29.¹⁷ In Uzbekistan nearly 60 percent of citizens are under 30.¹⁸ This youthful demographic means a large cohort is naturally inclined to embrace new technologies. Governments recognize this demographic advantage and often promote youth-oriented digital programs. For example, Uzbekistan's "One Million Uzbek Coders" initiative aims to train vast numbers of young people in programming and digital skills.¹⁹ The high adoption rates among youth also influence older generations – many urban families report that it was their children or grandchildren who first brought smartphones and internet connections into the home. Still, generational gaps persist: young people not only use the internet more frequently, but also differently—favoring interactive and on-demand content—whereas their parents may use smartphones primarily for calls or occasional video viewing.

The next sections delve into how youth use these connections, particularly which platforms they favor and to what ends.

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(https://www.worldometers.info/demographics/tajikistan-demographics/);

Worldometer, "Uzbekistan Population (2025)," 2025.

(https://www.worldometers.info/world-population/uzbekistan-population/)

August 3, 2025. (https://uz.kursiv.media/en/2025-08-04/youth-make-up-over-a-quarter-of-uzbekistans-population/)

¹⁷ Worldometer, "Kazakhstan Population (2025)," 2025.

⁽https://srv1.worldometers.info/world-population/kazakhstan-population/);

Worldometer, "Kyrgyzstan Demographics 2025 (Population, Age, Sex, Trends)," 2025.

 $^{(\}underline{https://www.worldometers.info/demographics/kyrgyzstan-demographics/);}\\$

Worldometer, "Tajikistan Demographics 2025 (Population, Age, Sex, Trends)," 2025.

¹⁸ Kursiv Uzbekistan, "Youth Make Up Over a Quarter of Uzbekistan's Population,"

¹⁹ IT Park Uzbekistan, "There Are Already 500 Thousand Participants on the 'One Million Uzbek Coders' Project," Aug 13, 2021. (https://it-park.uz/en/itpark/news/)

Dominant Digital Platforms and Their Influence on Youth

Youth in Central Asia navigate a digital ecosystem shaped by both a mix of global social media platforms and locally popular messaging apps. Our survey of Central Asian youth (15-29) reveals that personal content preferences overwhelmingly drive platform choice, far surpassing external influences. Approximately 90.4 percent of respondents selected their media platforms and content based on personal interests, making self-directed preference the dominant factor. Social influence plays a secondary yet notable role: 60.5 percent reported friends' recommendations as a key influence, suggesting that peer networks reinforce and validate content choices within this demographic. In contrast, broader societal cues and traditional authority figures are much less influential: only 22.9 percent cited trending topics and 15 percent cited family input as factors in their media choices. Notably, influencers and career-related motives have minimal impact: only 8.8 percent reported being swayed by influencer endorsements, and just 3.4 percent cited professional development needs. This pattern underscores that Central Asian youth prioritize personally relevant and peer-approved content while largely tuning out top-down or utilitarian appeals. These findings carry important implications for policymakers and digital strategists. The virtually absent role of career or educational content in youths' priority platform choices signals an opportunity to integrate meaningful skills or learning material into engaging formats that align with popular interests and social trends. In sum, digital engagement among Central Asian youth is driven from the bottom up by personal and social relevance. Content strategies should reflect this

reality—localizing material in native languages, blending entertainment with information, and aligning with youth motivations—to foster more inclusive and effective online spaces across the region.

Table 1. What influences youth's priority choice of media platforms and content in Central Asia?

Factor	Responses	Share of respondents
Personal interests	423	90.4%
Friends	283	60.5%
Trends	107	22.9%
Family	70	15%
Influencer recommendations	41	8.8%
Professional development	16	3.4%

Source: Surveys of youth in Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan

Key Platforms: Telegram, Instagram, YouTube, and TikTok

In recent years, Telegram, Instagram, YouTube, and TikTok have emerged as the dominant platforms among Central Asian youths, surpassing legacy networks like Facebook. These platforms strongly shape how youth consume news, express personal and cultural identity, and engage—or disengage—in civic matters. Below, we examine each major platform's reach and role, noting cross-country similarities and differences.

Telegram – The Ubiquitous Messenger and News Feed

Telegram is deeply embedded in daily life across Central Asia. Offering group chats, channels, and privacy features, it serves as a primary tool for

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communication and information, particularly in Uzbekistan and Kyrgyzstan.

By 2024, Uzbekistan reportedly had around 500,000-600,000 Telegram channel subscribers within a large-scale study sample, with usage spanning all age groups (ages 25 to 44 being the largest segment).²⁰ Importantly, Telegram functions not just as a private messenger but as a public news platform. Thousands of channels deliver everything from official government announcements to memes, celebrity gossip, and grassroots commentary. Young users frequently subscribe to channels run by bloggers, media outlets, and government agencies to receive real-time updates.²¹

Trust in Telegram's content is relatively high: a recent survey in Uzbekistan found that 54 percent of users trust the information they encounter on the platform, though many attempt to verify important news through additional sources.²² This suggests youth rely heavily on Telegram while maintaining some caution toward potential misinformation. Users display a discerning approach, often seeking corroboration, especially during periods of unrest or geopolitical crises when false information tends to spread rapidly.

Telegram's role is double-edged: it is a vital channel for factual news, civic discourse, and even job postings, yet it also enables the rapid circulation of rumors. Despite this, its popularity is unmatched. Most Uzbek users spend

²⁰ Insight Business, "Telegram Usage Patterns among Uzbek Users: A Study of 6,000 Respondents," Tashkent, Uzbekistan: Insight Business Research Agency, 2024.

²¹ Global Voices, "How the news goes viral in Uzbekistan," October 14, 2024. (https://globalvoices.org/2024/10/14/how-the-news-goes-viral-in-uzbekistan/)

²² Insight Business, "Telegram Usage Patterns among Uzbek Users: A Study of 6,000 Respondents," Tashkent, Uzbekistan: Insight Business Research Agency, 2024.

over an hour daily on Telegram, using it for everything from private chats to following preferred news and entertainment channels.²³

Similar patterns are observed among Kyrgyz and Kazakh youth, who depend on Telegram for study group discussions, event coordination, and activism.²⁴ In Kazakhstan, following the deadly unrest and internet shutdown of January 2022, many young activists turned to Telegram and VPNs as soon as service resumed, reinforcing its reputation as a resilient communication tool. Tajik youth also use Telegram extensively—one of the few relatively unrestricted platforms in the country—though overall penetration is lower due to limited internet access.²⁵

Notably, Telegram's design influences user behavior. Our survey of Uzbek users revealed that 67 percent prefer content consisting of short text paired with photos (quick updates), while only 16 percent favor videos. This indicates that youth often consume information in bite-sized formats, with implications for the depth of news engagement and critical analysis.

Instagram – Visual Culture and Self-Expression

Instagram is enormously popular among Central Asian youth as a platform for sharing photos, short videos (Reels), and personal updates. Kazakhstan stands in particular: as of early 2025, the platform had about 12.4 million users—roughly 60 percent of the population and over 80 percent of those

²³ Mukhammadsodik Donaev, "How the news goes viral in Uzbekistan," *Global Voices*, October 14, 2024. (https://globalvoices.org/2024/10/14/how-the-news-goes-viral-in-uzbekistan/)

²⁴Ayana Birbayeva, "Kazakh Audience Turns to Social Media as Primary News Source, Study Finds," *Astana Times*, June 30, 2025. (https://astanatimes.com/2025/07/kazakh-audience-turns-to-social-media-as-primary-news-source-study-finds/)

²⁵ "What Social Networks and Messengers are Popular in Tajikistan," *Avesta*, July 15, 2025. (https://en.avesta.tj/2025/07/16/what-social-networks-and-messengers-are-popular-in-tajikistan/)

aged 13 and older.²⁶ This gives Kazakhstan one of the highest Instagram market penetration rates worldwide.²⁷ For young Kazakhs, Instagram is the primary space for lifestyle expression, spanning fashion, travel, and visually driven discussions of social issues. Influencers shape youth trends, while businesses actively target this demographic on the platform.²⁸

In Uzbekistan, Instagram's reach is slightly lower but rapidly expanding: Meta's advertising data reported 8.7 million users in early 2024 (about 25 percent of the population), a figure likely exceeding 10 million by 2025 given continued growth.²⁹ Uzbek youth use the platform for visual storytelling, with popular accounts ranging from entertainment figures to young entrepreneurs showcasing their products and activists raising awareness of social issues.³⁰

Kyrgyzstan, with its smaller population, had about 2.9 million Instagram users by 2025. Roughly 44 percent of Kyrgyz citizens were on social media by 2025 overall,³¹ and Instagram was one of the top platforms in the country. Young Kyrgyz use it to celebrate nomadic traditions—sharing images of

²⁶ DataReportal, "Digital 2025: Central Asia," Datareportal, Mar 3, 2025. (https://datareportal.com/reports/digital-2025-central-asia)

²⁷ World Population Review, "Instagram Users by Country 2025," 2025.

⁽https://worldpopulationreview.com/country-rankings/instagram-users-by-country)

²⁸ Ayana Birbayeva, "Kazakh Audience Turns to Social Media as Primary News Source, Study Finds," *Astana Times*, June 30, 2025. (https://astanatimes.com/2025/07/kazakh-audience-turns-to-social-media-as-primary-news-source-study-finds/)

²⁹ Simon Kemp, "Digital 2024: Uzbekistan," DataReportal, Jan 2024. (https://datareportal.com/reports/digital-2024-uzbekistan); DataReportal, "Digital 2025: Central Asia," Datareportal, Mar 3, 2025. (https://datareportal.com/reports/digital-2025-central-asia)

³⁰ StarNgage, "Top 1000 Instagram Influencers In Uzbekistan," June 30, 2025. (https://starngage.com/plus/en-us/influencer/ranking/instagram/uzbekistan)

³¹ NapoleonCat, "Instagram Users in Kyrgyzstan – January 2025," Jan 2025. (https://napoleoncat.com/stats/instagram-users-in-kyrgyzstan/2025/01/); DataReportal, "Digital 2025: Central Asia," Datareportal, Mar 3, 2025. (https://datareportal.com/reports/digital-2025-central-asia)

traditional dress and horse games—while also engaging with global youth culture.

In Tajikistan, where total social media use is more limited (around 1.75 million users, or 16 percent of the population),³² Instagram still holds particular appeal among urban youth. According to our survey, many maintain profiles to project a modern image, and for some—especially young women—it serves as a space to subtly challenge conservative offline norms through fashion and self-expression.

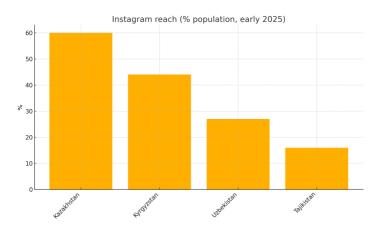


Figure 4. Instagram Reach in Central Asia

Data: Author's compilation based on secondary sources.

Across Central Asia, young people carefully curate their Instagram profiles to reflect personal identity, whether by expressing national pride, religious values, or cosmopolitan tastes. Kazakh and Kyrgyz users often post in their local languages as a statement of cultural pride, combining Kazakh or Kyrgyz captions with global hashtags.³³ According to our survey, in Uzbekistan, Instagram has become a space for asserting a renewed Uzbek

³² DataReportal, "Digital 2025: Central Asia," Datareportal, Mar 3, 2025. (https://datareportal.com/reports/digital-2025-central-asia)

³³ Bogdan Petrov, et. al., "Media Consumption of Youth in the Border Regions of Kazakhstan," *Studies in Media and Communication*, vol. 13 no. 2, June 2025. (https://redfame.com/journal/index.php/smc/article/download/7406/6808)

identity following post-2016 reforms, with posts on the platform highlighting Navruz celebrations or popular Uzbek music stars trending widely. The platform thus serves as a canvas to negotiate identity, allowing youth to balance tradition with global digital culture.

YouTube and Video Platforms

Long-form video content, especially on YouTube, plays an equally prominent role in shaping youth media habits. YouTube is broadly accessible across the region and has emerged as a go-to source for news and entertainment. Young content creators produce a wide range of videos—from vlogs, comedy sketches, and music clips to informational videos on history, politics, and social issues. Kazakhstan and Uzbekistan have particularly large YouTube audiences among youth.³⁴ In Uzbekistan, for example, locally produced talk shows and podcasts, often focused on youth concerns or entrepreneurship, garner millions of views and meet a demand for content once absent from state-controlled television. With improving internet speeds, streaming has become increasingly common. During COVID-19 lockdowns, educational content on YouTube, including lectures and tutorials in Russian, Uzbek, and other local languages, became an essential tool for students learning from home.³⁵

 $^{^{34}}$ UzDaily, "Telegram - 76% Reach, YouTube - no. 1, E-Commerce on the Rise: Inside Uzbekistan's Digital Landscape," October 21, 2025.

⁽https://www.uzdaily.uz/en/telegram-76-reach-youtube-no-1-e-commerce-on-the-rise-inside-uzbekistans-digital-landscape/)

³⁵ Zahra Zarrati, Jamila Ermetova, and Shahodat Rakhimova Azadovna. "COVID-19 and Higher Education in Uzbekistan: Lessons from Two Universities." *Journal of Higher Education Policy and Leadership Studies*, vol. 3 no. 2, 2022, pp. 144–164. (https://johepal.com/article-1-220-fa.pdf)

Television vs. Online Media

Social media and YouTube have significantly eroded television's dominance among younger generations. A 2023 regional study found that only 39 percent of people aged 18 to 24 still watched television for domestic news, compared to 79 percent of those aged 55 and older.³⁶ Instead, over half of youth (50 percent) cite social media on smartphones as their primary news source, placing online platforms on par with or surpassing national television.³⁷ This shift is striking: a typical 20-year-old in Bishkek or Dushanbe is now far more likely to receive breaking news from a Telegram channel or an Instagram story than from an evening newscast. Even in Uzbekistan, where state television once monopolized public narratives, young audiences increasingly bypass traditional broadcasts in favor of sources. Researchers note that younger Central Asians predominantly rely on the internet for news, resulting in more personalized, diverse media diets that include local, Russian, Western, Turkish, and other international content creators. In contrast, older generations remain largely tethered to domestic or Russian television channels, reflecting a more localized and narrower information sphere.³⁸

TikTok – Viral Trends and Youth Culture

The short-form-video platform TikTok has experienced explosive growth among Central Asian youth, though adoption patterns vary significantly by country. Kazakhstan leads the region: by early 2025, TikTok's advertising reach included about 15.7 million adults (18 and over), equivalent to 81.5

³⁶ European Neighbourhood Council (ENC), "Central Asian Media Consumption and Disinformation: A Quantitative and Qualitative Assessment in the Context of Geo-Politics," Brussels: European Neighbourhood Council, Mar 2023. (https://internews.org/wp-content/uploads/2023/05/2023-03-ENC-Report-ENG-V8-

POST-PRINT.pdf)

³⁷ Ibid.

 $^{^{38}}$ Ibid; Petrov et. al., "Media Consumption of Youth in the Border Regions of Kazakhstan,"

percent of all internet users in the country.³⁹ This suggests that virtually every young Kazakh adult with internet access uses TikTok. The platform's algorithm-driven feed captivates users with dance challenges, comedic skits, and micro-vlogs. Many Kazakh creators produce content in the Kazakh language, blending humor with occasional discussions of social issues—sometimes expressed in coded terms to avoid political sensitivities.⁴⁰

In Uzbekistan, TikTok's expansion was slowed by a mid-2021 government restriction (the app was temporarily blocked for failing to comply with data localization laws).⁴¹ Although the ban was lifted later that year, the disruption affected early adoption. By early 2024, TikTok had about 3.1 million users aged 18 or older⁴² – a modest roughly 10 percent of the population compared to Kazakhstan's much higher penetration rate. Usage has since grown rapidly as more Uzbek youth access the app, often relying on Wi-Fi to avoid mobile data costs. Kyrgyzstan and Tajikistan never imposed nationwide bans, allowing TikTok to grow organically. Kyrgyz youth frequently create content in Kyrgyz and Russian, from comedic clips and lip-sync videos to lifestyle influencer posts.⁴³ In Tajikistan, government officials have expressed concerns about TikTok's "time-wasting" nature, and there have been discussions of possible restrictions, but as of 2025 the app remains accessible. Tajik youth produce Russian- and Tajik-language videos, often using humor to gently poke fun at social norms.⁴⁴

³⁹ DataReportal, "Digital 2025: Central Asia."

⁴⁰ Petrov et. al., "Media Consumption of Youth in the Border Regions of Kazakhstan."

 $^{^{41}}$ UzDaily, "Telegram - 76% Reach, YouTube - no. 1, E-Commerce on the Rise: Inside Uzbekistan's Digital Landscape."

 $^{^{\}rm 42}$ DataReportal, "Digital 2025: Central Asia."

⁴³ European Neighbourhood Council (ENC), "Central Asian Media Consumption and Disinformation."

⁴⁴ Ibid.

Beyond its user base, TikTok has had a profound influence on youth culture and identity in the region. Viral trends have helped popularize new music and slang across borders. The platform also provides a venue to challenge social norms, particularly for women discussing feminism or personal freedoms in ways that may be harder on other platforms. However, TikTok's highly entertaining, fast-paced format can also lead to less engagement with current affairs, prompting concerns that youth may spend hours on comedic content while avoiding serious news. On the other hand, TikTok can foster creativity and digital skills—video editing, storytelling, and content production—that may benefit users long-term. Like Instagram, TikTok's algorithm shows content based on popularity rather than social connections, exposing youth to global trends, international movements, and new ideas—but also potentially to to misinformation or extremist material. These risks are discussed further in the media literacy section.

Facebook, VKontakte, and Others – Declining but Notable

Older social networks have seen their popularity among youth decline sharply across Central Asia, though some retain niche influence. Facebook usage among young people is relatively low in Uzbekistan, where its advertising reach was only 6 percent of the total population in 2024, 46 and similarly modest in Tajikistan. In Kazakhstan and Kyrgyzstan, Facebook retains somewhat more relevance, particularly among university-educated youth, journalists, and activists who use it for professional networking and

⁴⁵ United Nations Population Fund, "TikTok Influencers from Central Asia Call for the Elimination of Gender Stereotypes in the Society." October 25, 2021.

⁽https://uzbekistan.unfpa.org/en/news/tiktok-influencers-central-asia-call-elimination-gender-stereotypes-society)

⁴⁶ DataReportal, "Digital 2024: Uzbekistan."

discussion groups. However, Instagram—also owned by Meta—has largely displaced Facebook as the preferred platform for social interaction.⁴⁷

The Russian platform VKontakte (VK) once dominant social media in the region but has seen a dramatic decline in youth usage, especially in openmarket countries such as Kazakhstan and Kyrgyzstan, where Western alternatives and Telegram have largely replaced it. VK remains more popular in Tajikistan, where it is used for music sharing and social groups, and to a lesser extent in Uzbekistan. Odnoklassniki, another Russian platform, is now mainly used by older demographics, while few teenagers maintain accounts except to stay in touch with older relatives.⁴⁸

Messaging apps remain a key part of digital life but are not the primary social platforms for youth. WhatsApp is ubiquitous across Central Asia, installed on nearly every smartphone except in Uzbekistan, where Telegram dominates everyday communication. Among young users, WhatsApp is typically reserved for family chats or conversations with parents. Other messaging apps, such as IMO, are especially popular for video calls and cross-border communication—for example, Tajik youth frequently rely on them to keep in touch with relatives working abroad.⁴⁹

Finally, local forums and apps maintain a limited but notable presence. Kazakhstan has seen periodic youth engagement with local discussion forums (e.g., Yvision in the past), while today many similar community

kyrgyzstan-and-kazakhstan)

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⁴⁷ European Neighbourhood Council (ENC), "Central Asian Media Consumption and Disinformation: A Quantitative and Qualitative Assessment in the Context of Geo-Politics."

⁴⁸ European Neighbourhood Council (ENC), "Central Asian Media Consumption and Disinformation."

⁴⁹ Tlegen Kuandykov, "Which Messaging apps are Popular in Uzbekistan, Kyrgyzstan, and Kazakhstan?" *CA-Barometer*, December 26, 2023. (https://ca-barometer.org/en/publications/which-messaging-apps-are-popular-in-uzbekistan-

functions have shifted to Telegram channels or Instagram group pages. In Uzbekistan, some youth make use of state-run online services or youth union applications for civic purposes, but these are not social platforms in the same sense as Instagram, TikTok, or VK.

Influence on News Consumption

The rise of social media platforms has fundamentally reshaped how young people in Central Asia access news. The 2023 Internews/ENC survey highlighted that social media is now the leading source of both domestic and international news among youth across the region. In Kazakhstan, 48 percent of the population reports consuming international news primarily via social media, surpassing local television channels. This reliance on online platforms is even more pronounced among younger respondents. In Kyrgyzstan, people under 25 are far less likely to rely on Russian state media—fewer than 25 percent of youth use Russian outlets—preferring instead Kyrgyz-language news sources and digital platforms. These trends mark a sharp generational shift in information consumption compared to older populations, who largely grew up with Soviet and Russian broadcast media.

Youth are also increasingly embedded in transnational digital networks, connecting not only local peers but with global communities online. Youth, as a result, have a more globally interconnected perspective and greater exposure to diverse narratives. However, this does not always translate into stronger comprehension or critical engagement with information, as discussed further in the section on media literacy.

⁵⁰ European Neighbourhood Council (ENC), "Central Asian Media Consumption and Disinformation."

⁵¹ Ibid.

Identity Expression and Community Building

Social media has become a central space for Central Asian youth to express and explore their identities—national, religious, ethnic, or subcultural. Platforms like Instagram and TikTok feature young users proudly showcasing traditional dress, music, and customs.⁵² Such content frequently goes viral regionally, fostering a sense of cultural pride.

At the same time, these platforms give young people room to explore identities that may be constrained offline. Youth interested in niche hobbies—such as K-pop, anime, or skateboarding—connect with peers across the region through social media groups, creating communities that transcend local boundaries. In Uzbekistan, where public self-expression was tightly controlled until recent years, the surge in blogging on YouTube and Instagram after 2016 provided an unprecedented outlet to voice their opinions. Dozens of Uzbek bloggers now discuss lifestyle topics and even engage in mild social commentary—something nearly unthinkable under the previous regime.

In Kyrgyzstan, often considered the most open media environment in the region, youth have used Facebook and Instagram to organize campaigns on issues like environmental protection and gender equality.⁵³ Even in more restrictive Tajikistan, young people leverage the relative anonymity of

⁵² DKNews. "TikTok Shares How Kazakhstan Celebrated Nauryz Online." March 25, 2025. (https://dknews.kz/en/articles-in-english/357981-tiktok-shares-how-kazakhstan-celebrated-nauryz-online)

⁵³ UN Women. "Youth Leading Local Change: From Climate Justice to Gender Equality." August 23, 2025. (https://www.unwomen.org/en/news-stories/feature-story/2025/08/youth-leading-local-change-from-climate-justice-to-gender-equality)

Telegram channels or YouTube comment sections to discuss identity and social issues, albeit cautiously.⁵⁴

The impact of social media platforms on civic attitudes is complex, with both positive and negative effects. Algorithm-driven feeds often reinforce apathy, with many young people primarily following entertainment content, leaving them insulated from political issues. Public officials frequently lament that TikTok and Instagram are distracting the youth from serious matters.⁵⁵

At the same time, these platforms expose youth to global conversations—such as climate change activism, #MeToo, and other social movements—that can inspire local action. For example, small-scale Women's Day marches in Bishkek and environmental clean-up flash mobs in Almaty were largely organized and publicized through social networks by young participants.

Overall, Telegram, Instagram, YouTube, and TikTok have become central to youth culture in the region, shaping how young people consume news, form opinions, express identities, and mobilize for change. Traditional gatekeepers like state television and print newspapers have largely fallen out of favor with youth audiences. Influence now lies with digital creators, group administrators, and a network of likes, shares, and reposts.

As the next section explores, this transformation brings new opportunities for learning and economic advancement but also raises questions about how digital engagement can translate into meaningful, positive offline outcomes.

⁵⁴ Umedjon Majidi, "Youth Radicalization and Digital Spaces: Emerging Threats to Peace and Security in Tajikistan," *Peace & Humanity Monitor* October 2025. (https://peacehumanity.org/monitor/youth-radicalization-and-digital-spacesemerging-threats-to-peace-and-security-intajikistan/)

⁵⁵ Fariza Ospan, "Kazakhstan Discusses TikTok Blocking. What Is The Risk for Other Social Media?" CABAR.asia, May 5, 2024. (https://cabar.asia/en/kazakhstan-discusses-tiktok-blocking-what-is-the-risk-for-other-social-media)

Digital Engagement and Socio-Economic Outcomes

Digital technology is increasingly shaping the educational and economic trajectories of Central Asian youth. From online learning and skills acquisition to entrepreneurship and career planning, internet access can act as a powerful equalizer—or, if unevenly distributed, as a new driver of inequality. This section examines how youth digital engagement relates to learning opportunities, skill development, employment, and entrepreneurial activity, as well as how the four countries vary in their ability to harness the digital dividend for young people.

Online Learning and Education

The COVID-19 pandemic abruptly pushed schools across Central Asia into distance learning, exposing deep connectivity gaps. ⁵⁶ When schools and universities closed in spring 2020, Kazakhstan, Uzbekistan, and Kyrgyzstan scrambled to adopt remote education (while Tajikistan initially denied COVID's spread and kept schools open longer). The transition revealed stark inequalities: many youth—particularly in rural or low-income households—lacked devices, stable internet, or even reliable electricity for effective online learning.

In Uzbekistan, for example, the government broadcasted lessons on television and YouTube, but few students could access online content due

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⁵⁶ UNESCO and UNICEF, "Education and COVID-19 in Central Asia: Rapid Response Brief," 2021. (https://www.unicef.org/media/84746/file/Education-and-COVID-19-in-Central-Asia-Rapid-Response-Brief-2021.pdf)

to limited household connectivity. Teachers and students alike struggled with unfamiliar platforms and insufficient digital skills. A World Bankbacked assessment noted that villages rarely met the live, online learning prerequisites of high-quality internet and a steady power supply, making classes nearly impossible in some areas.⁵⁷ Meanwhile, urban youth in Almaty or Tashkent with fiber broadband transitioned relatively smoothly to platforms like Zoom or Google Classroom, widening the gap between "connected" and "offline" students.

Post-pandemic, all four countries recognized the urgency of closing this divide. Kazakhstan was comparatively better prepared: many secondary schools had some e-learning infrastructure pre-2020, and programs like "Connect-Ed" provided devices to low-income students. Yet even there, surveys found students struggled with unstable internet and teachers lacked training in online pedagogy.

Uzbekistan made digital education a priority in its "Digital Uzbekistan 2030" strategy. With support from UNICEF's GIGA project, it achieved 99.6 percent school connectivity in schools by 2024 (at least 10 Mbps in nearly all schools)⁵⁸—a significant infrastructure milestone. However, school-level access does not guarantee home connectivity for every student, and affordability and household device availability are ongoing challenges.

Kyrgyzstan and Tajikistan, constrained by geography and limited budgets, lag behind in digital education, though donor-supported initiatives have distributed tablets and improved school networks on a smaller scale.

(https://blogs.worldbank.org/en/europeandcentralasia/how-central-asia-can-ensure-it-doesnt-miss-out-digital-future)

⁵⁷ Lilia Burunciuc, "How Central Asia can ensure it doesn't miss out on a digital future," World Bank, June 20, 2021.

⁵⁸ UNESCO and UNICEF, "Education and COVID-19 in Central Asia: Rapid Response Brief."

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All four governments are now revising curricula to include more digital skills: Kazakhstan is piloting media literacy and coding modules in high schools, while Uzbekistan has introduced robotics and programming extracurriculars to train over 400 rural adolescent girls in STEM fields.⁵⁹ These efforts aim not only to provide access but also to equip youth with the skills needed to fully benefit from digital learning opportunities.

Many young people in Central Asia have turned to the internet to supplement formal education and acquire new skills. Online courses and massive open online courses (MOOCs) have attracted growing numbers of urban youth. In Uzbekistan, thousands enrolled in Coursera and EdX classes when the government temporarily offered free access during the pandemic.⁶⁰ In Kyrgyzstan, YouTube tutorials are widely used to learn everything from graphic design to guitar playing. Ambitious youth often turn to online coding bootcamps or communities to overcome outdated school curricula. The success of initiatives like "One Million Uzbek Coders," an online challenge that reportedly trained large numbers of Uzbek youth, highlights the region's latent demand for tech education. Language learning is another area of strong interest: many Tajik and Uzbek youth take English lessons online, often through virtual group classes or Instagram-based boost their job prospects. However, these disproportionately favor those with reliable internet and sufficient digital literacy—typically urban, well-educated youth—while students in remote or low-income households risk falling behind. This growing "digital education divide" remains a key policy challenge for inclusive growth.

⁵⁹ International Trade Centre, "How the UN Guides Uzbekistan's Youth in Its Digital Journey," ITC News and Events, Sep 18, 2024. (https://www.intracen.org/news-and-events/news/how-the-un-guides-uzbekistans-youth-in-its-digital-journey)

⁶⁰ UzReport. "Uzbekistan's Unemployed Citizens to Get Free Access to Coursera Online Courses." July 7, 2021. (https://www.uzreport.news/finance/uzbekistans-unemployed-citizens-to-get-free-access-to-coursera-online-courses)

Digital skills are increasingly shaping youths' career prospects across the region. In all four countries, proficiency in IT and related fields is viewed as a gateway to higher-paying jobs and access to global remote work opportunities. Our survey data from Uzbekistan indicates that young people overwhelmingly see digital skills as "necessary for [their] future career," with programming, data analysis, and digital marketing ranking as top priorities. Governments and NGOs have responded with targeted initiatives: Uzbekistan's "Youth Digital Economy" project, supported by the United Nations Development Programme, trains you, and particularly women, in digital entrepreneurship to help them launch tech startups or secure tech-enabled employment. Kazakhstan's ecosystem now includes several private coding academies alongside the state-backed Astana Hub, while Kyrgyzstan's scene is bolstered by NGO-led bootcamps that teach rural youth basic web development for freelance opportunities. 61 Tajikistan remains earlier in this journey, but IT training centers in Dushanbe have begun offering introductory courses for young learners.

Exposure to the internet often sparks an interest in technology careers among Central Asian youth. Many start as "power users" of social media and later become curious about how apps are built or how digital content can be monetized. For example, several young Kazakh entrepreneurs began as Instagram influencers and eventually launched their own e-commerce businesses, leveraging the audiences they had cultivated online. ⁶² In Uzbekistan, the visibility of the country's growing IT outsourcing industry (exporting software services to foreign clients) has influenced students' career choices. Enrollment in IT-related university programs has surged,

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⁶¹ TechCrunch, "Astana Hub Aims to Become the Region's Next Big Tech Magnet," Mar 10, 2024. (https://techcrunch.com/2024/03/10/astana-hub-aims-to-become-the-regions-next-big-tech-magnet/)

⁶² Arslan Akanov, "How a Young Kazakh Entrepreneur Creates a New Generation Startup." *Forbes Kazakhstan*, August 14, 2023.

⁽https://forbes.kz/articles/how a young kazakh entrepreneur creates a new generat ion startup)

and the ICT workforce expanded from approximately 62,200 in 2020 to 87,800 in 2023. By 2023, Uzbekistan had 21 local universities and 14 foreign-partner institutions offering IT degrees.⁶³ Similar patterns are visible in Kazakhstan.⁶⁴

However, a persistent challenge is ensuring graduates are prepared for the workplace. A 2021 survey of Uzbek companies found that 62 percent struggled to hire qualified IT specialists, citing insufficient practical experience among applicants. Many young graduates lack exposure to real-world projects, driving demand for internships, hackathons, and practical training opportunities—often coordinated via digital platforms like Kyrgyz Telegram channels that share IT openings. Those who successfully build strong digital skills can access remote work for international companies. Freelance platforms such as Upwork are increasingly popular among young professionals in Kyrgyzstan and Uzbekistan, where work in coding, graphic design, and translation can pay several times more than local salaries. Our survey of Kyrgyz freelancers highlights that, with just a laptop and decent English skills, they can earn several multiples of the national average income online, which serves as a strong incentive for peers to develop similar skills.

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sayasat-nurbek-on-attracting-global-talent-and-driving-innovation/)

Gas United Nations Development Programme (UNDP), "Digital Economy of Uzbekistan: The State of Digital Entrepreneurship and Artificial Intelligence," Tashkent: UNDP Uzbekistan, May 2025. (https://www.undp.org/uzbekistan/publications/digital-economy-uzbekistan-state-digital-entrepreneurship-and-artificial-intelligence)

Gas "Kazakhstan's Higher Education Transformation – Minister Sayasat Nurbek on Attracting Global Talent and Driving Innovation," *The Times of Central Asia*, September 27, 2025. (https://timesca.com/kazakhstans-higher-education-transformation-minister-

⁶⁵ United Nations Development Programme (UNDP), "Digital Economy of Uzbekistan: The State of Digital Entrepreneurship and Artificial Intelligence," Tashkent: UNDP Uzbekistan, May 2025. (https://www.undp.org/uzbekistan/publications/digital-economy-uzbekistan-state-digital-entrepreneurship-and-artificial-intelligence)

Entrepreneurship and startups represent one of the most promising intersections between youth and digital technology. Governments across Central Asia see startups as tools to diversify their economies and generate employment. Kazakhstan leads the region in startup investment: in 2024, its startups attracted about \$71 million in venture capital, compared to \$17.5 million in Uzbekistan. Gentre and multiple accelerators, Kazakhstan has produced successful firms in fintech, ride-hailing, and e-commerce, serving as role models for young entrepreneurs. Uzbekistan's startup ecosystem is newer but growing rapidly: by 2023, roughly 1,200 startups—20 percent of the regional total—operated in Uzbekistan, and most were founded by people under 30 and focus on fintech, e-commerce, edtech, and other digital solutions. Sustainability remains an issue, with only 50 to 100 Uzbek startups considered stable to date.

Kyrgyzstan and Tajikistan have much smaller startup pools, limited by market size and weaker investment climates. Kyrgyzstan hosts only a few dozen notable ventures, while Tajikistan has just a handful of nascent tech firms. Nonetheless, informal digital entrepreneurship thrives: many young Kyrgyz run Instagram-based online shops or sell handicrafts on Facebook groups, while Tajik youth often use Telegram to advertise tutoring services or homemade products. Digital platforms have drastically lowered barriers to entry, allowing ambitious young people to start businesses without

⁶⁶ Ainur Zhanturina et. al., "Venture Capital in Central Asia 2024: 2nd Edition," RISE Research, RISE Research in collaboration with KPMG, EA Group, MA7 Ventures, BGlobal Ventures, and Dealroom.co, March 2025.

⁽https://assets.kpmg.com/content/dam/kpmg/uz/pdf/2025/03/CA-VC-Report-2025.pdf); BusinessWire, "Central Asia's Venture Capital Market Reaches \$95 Million in 2024," Mar 19, 2025. (https://www.businesswire.com/news/home/20250319550326/en/Central-Asias-Venture-Capital-Market-Reaches-\$95-Million-in-2024);

⁶⁷ "Uzbekistan's Ecosystem for Technology Startups," Asian Development Bank, August 25, 2023.

⁽https://www.adb.org/sites/default/files/publication/905251/uzbekistan-ecosystem-technology-startups.pdf); United Nations Development Programme (UNDP), "Digital Economy of Uzbekistan."

physical storefronts and only an online presence and a delivery network. For many in economies with high youth unemployment, these platforms provide both income opportunities and a path toward economic independence.

Structural and regulatory barriers continue to shape the entrepreneurial landscape for youth in Central Asia, limiting the growth of promising startups. In Uzbekistan, despite strong government rhetoric about fostering innovation and initiatives like IT parks, young founders report significant obstacles. A survey of startups found that 70 percent cite lack of funding as their primary challenge, followed closely by difficulties in customer acquisition and scaling. Domestic venture funds remain scarce, banks often misunderstand or distrust startup business models, and complex tax and registration procedures create additional hurdles. For example, a young Uzbek app developer might find themselves bogged down by high tax burdens, lengthy paperwork, and a lack of clear legal frameworks for venture capital or crowdfunding, all of which discourage risk-taking and growth.

Kazakhstan has a relatively more developed support system, with multiple venture capital funds, government-backed grant programs, and startup accelerators, which help explain its higher investment figures. However, even Kazakh startups frequently look abroad to hubs like Singapore or Dubai for better scaling opportunities, highlighting the region's tech ecosystem constraints. In Kyrgyzstan, most youth-led startups rely on small-scale grants or hackathon prizes (often donor-funded by organizations like the U.S. Agency for International Development [USAID] or Deutsche Gesellschaft für Internationale Zusammenarbeit [GIZ]) for seed

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⁶⁸ United Nations Development Programme (UNDP), "Digital Economy of Uzbekistan."

capital, while many of the most talented young founders eventually leave the country in search of more robust startup environments.

Still, optimism among youth entrepreneurs remains high. In Uzbekistan, 85 percent of young founders express confidence in the country's digital future, buoyed by recent infrastructure improvements and increasing government attention to the tech sector. ⁶⁹ Similarly, in Kazakhstan and Kyrgyzstan, young innovators show strong motivation to tackle local problems through technology—whether by creating mobile payment solutions in largely cash-based economies or developing agri-tech apps to support farmers.

Digital engagement is increasingly shaping career trajectories for the broader youth population in Central Asia—not only for entrepreneurs and IT specialists but also for those navigating more traditional employment paths. Exposure to online platforms broadens youths' awareness of potential careers beyond what has historically been available. In smaller economies, government jobs or labor migration once dominated young people's prospects. Now, the rise of remote work and freelancing offers alternatives: some youth choose to remain in their home countries while working online for foreign employers. Others discover entirely new fields through internet exposure. For instance, a teenager in Tajikistan might learn about graphic design through Instagram tutorials and decide to pursue that instead of the conventional civil service route.

A growing phenomenon of "micro-entrepreneurship" has emerged via social media. Many young people earn supplemental income as influencers, content creators, or online resellers. In Uzbekistan, it has become common for college students to run Instagram boutiques selling clothing imported from Turkey or China, or to launch YouTube channels that generate advertising revenue. In some cases, these side ventures evolve into full-

⁶⁹ United Nations Development Programme (UNDP), "Digital Economy of Uzbekistan."

fledged careers, reshaping local notions of what counts as stable or viable work.

Digital connectivity has also expanded access to professional networks and career support. Platforms like LinkedIn (where available) and specialized Telegram channels have become critical tools for finding mentors, receiving job referrals, and discovering opportunities beyond one's immediate geographic area. In Kazakhstan and Uzbekistan, Telegram groups with thousands of subscribers share daily postings for tech jobs, internships, or scholarships abroad. For rural youth, these networks can provide life-changing access to information that would otherwise remain out of reach, enhancing social mobility for those who know how to navigate them.

At the same time, there is growing concern about unproductive digital use. Officials and educators worry that many young people spend disproportionate time on entertainment content instead of developing skills or seeking educational opportunities online. A 2024 World Health Organization (WHO) report flagged "problematic social media use among adolescents" in Central Asia, noting risks of internet overuse that can harm academic performance and long-term employability. 70 Governments have responded with public awareness campaigns—such as Uzbekistan's Ministry of Youth encouraging "productive internet use"—and, in some cases, restrictive measures. Tajikistan's education ministry has even floated bans on smartphone use in schools, citing fears of distraction. While such heavy-handed policies are controversial, they highlight a key policy challenge: ensuring that expanded digital access translates into tangible improvements in education, skills, and employment outcomes, rather than merely fueling passive consumption.

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⁷⁰ World Health Organization Regional Office for Europe, "A Focus on Adolescent Social Media Use and Gaming in Europe, Central Asia and Canada, Health Behaviour in School-aged Children Study, Vol. 6, 2024.

⁽https://iris.who.int/bitstream/handle/10665/378982/9789289061322-eng.pdf)

Evidence to date indicates that, when provided with the opportunity, Central Asian youth enthusiastically harness digital technology to advance their education and careers. Remote IT work has enabled a form of "brain circulation": young professionals in Kyrgyzstan or Uzbekistan can now secure contracts with companies in Silicon Valley or Europe while remaining in their home countries—a scenario that was virtually impossible just a decade ago. This allows local talent to participate in global markets without leaving, bringing foreign income into domestic economies and creating positive spillover effects for local tech ecosystems.

Uzbekistan's government-backed IT Park exemplifies this transformation. In recent years, it has reported the creation of thousands of new IT jobs and steady growth in the export of software services. These developments have spurred greater demand for IT training, with students increasingly enrolling in computer science programs or coding bootcamps to access these high-paying opportunities. Beyond the tech sector, digital literacy has rapidly become a baseline requirement for employment in fields ranging from tourism to banking. Employers now expect candidates to be comfortable using digital tools—whether managing online bookings, analyzing data in spreadsheets, or running social media campaigns. Youth who actively use the internet gain a natural advantage in these competencies, as their day-to-day online engagement builds transferable skills like navigating platforms, digital communication, and basic marketing know-how.

In sum, digital engagement is emerging as a central driver of human capital development across Central Asia. It opens alternative learning avenues, shapes career aspirations, and creates innovative pathways for earning income—locally, regionally, and globally. Yet the benefits remain unevenly distributed: urban, well-connected, and relatively affluent youth gain far more than their rural or marginalized peers, who often face persistent

⁷¹ IT Park Uzbekistan. "In August IT Park Admitted 82 New Exporters." September 10, 2025. (https://it-park.uz/en/itpark/news/in-august-it-park-admitted-82-new-exporters)

connectivity and skills barriers. Governments across the region recognize that long-term economic growth and diversification hinge on empowering this digital-native generation. Closing gaps in infrastructure, expanding targeted digital skills programs, improving access to startup financing, and embedding technology training in education systems are key steps toward ensuring that the digital transformation uplifts all youth, not just the most privileged.

The next section examines whether young people are equipped to navigate the complex online information ecosystem—that is, their levels of media and digital literacy, which critically shape how beneficial their digital engagement ultimately becomes.

Media and Digital Literacy: Bridging the Gap Between Values and Behavior

As Central Asian youth increasingly immerse themselves in the digital world, questions arise about their ability to critically evaluate information and use online tools responsibly. Media and digital literacy—the capacity to locate, verify, and thoughtfully engage with online content—has become essential in an era marked by misinformation, algorithm-driven echo chambers, and information overload. This section examines the current state of media literacy among young people in the region, highlighting a common pattern: youth overwhelmingly express a commitment to accuracy and fact-checking, yet their actual behaviors often fall short of these ideals. We also explore ongoing initiatives to improve media literacy and the challenges in making these skills widespread and effective.

Stated Importance of Accuracy

On the surface, young Central Asians demonstrate a strong awareness of the need to verify information online. Our survey data from Uzbekistan indicates that nearly 99 percent of respondents agree that checking the accuracy of online information is important, with about 86 percent rating it as "very important" or "important." Similar attitudes are reported in neighboring countries. Growing up amid a mix of state propaganda, unregulated social media, and viral misinformation, many young people have learned to value caution. Examples frequently cited include false health remedies spreading during COVID-19 or inflated casualty numbers during regional conflicts on platforms like Telegram and YouTube. Qualitative research supports this: educated youth in Kazakhstan and

Kyrgyzstan often aspire to be "informed citizens" who do not take information at face value, signaling that critical thinking is widely regarded as a civic virtue.⁷²

Actual Fact-Checking Behaviors

Despite these stated values, there is a clear gap between what youth believe and what they practice. According to our survey, in Uzbekistan, only 53 percent of youth respondents reported "always" or "often" using factchecking tools or verifying information before sharing it. About 35 percent said "sometimes," while 11 percent admitted to rarely or never verifying information. This discrepancy suggests that although awareness is high, the extra step of fact-checking often gets skipped in real-time online interactions. Comparable patterns appear across the region. Survey results in Kazakhstan show that 70 percent of youth claimed to have basic factchecking skills (such as checking sources and publication dates), many still believe and share unverified claims, particularly on fast-moving platforms like WhatsApp or Telegram. In Kyrgyzstan, where the media environment is relatively open, 78 percent of youth expressed confidence in spotting fake news, yet observational studies indicate that this confidence often exceeds actual ability. In Tajikistan, 64 percent of young people profess support for fact-checking, but with limited access to independent journalism and few fact-checking resources in the Tajik language, many lack practical tools to cross-check information effectively.

Factors Contributing to the Gap Between Values and Behavior

Several factors explain why Central Asian youth often fail to fact-check information despite valuing accuracy. One is the speed and convenience

⁷² European Neighbourhood Council (ENC), "Central Asian Media Consumption and Disinformation."

culture of social media. Platforms like TikTok, Instagram, and Telegram encourage rapid consumption of short, emotionally engaging content. Youth frequently like, share, or forward posts that provoke a strong reaction before pausing to verify them. For instance, a dramatic rumor circulating on a Telegram channel can spread through dozens of youth group chats within minutes, while a more measured fact-check article debunking it—posted on a site like Factcheck.kz or in a lengthy Facebook thread—reaches only a fraction of the same audience.

Another factor in limited fact checking is that access to quality information in local languages is often not available. Many Central Asian youths are bilingual in the local language and Russian, but English proficiency remains uneven, restricting access to global fact-checking resources. Even in Russian, reliable fact-checks do not always cover local rumors or may not be widely publicized. If a piece of misinformation spreads in Uzbek, Tajik, or Kyrgyz, a young person might not easily find a debunk in the same language, reducing their likelihood of questioning it.

Trust in media sources further complicates verification behaviors. Surveys show that rural and less-educated youth often trust state television or information shared by family elders over independent outlets, making them less likely to challenge such content.⁷³ In Tajikistan and Uzbekistan, a significant share of youth still consume Russian- or Uzbek-language state television news and assume its accuracy. An Internews study found that 47 percent of Tajiks and 44 percent of Uzbeks (across age groups) express complete trust in state media, a trust that many young people have as a result of growing up with few alternative sources.⁷⁴ This can foster confirmation bias, where official narratives are accepted

⁷³ European Neighbourhood Council (ENC), "Central Asian Media Consumption and Disinformation."

⁷⁴ Ibid

unquestioningly, while information from opposition or foreign sources is treated with skepticism.

Susceptibility to Misinformation

The combination of high internet use and uneven critical thinking skills has made youth in Central Asia particularly vulnerable to misinformation and propaganda campaigns. The region's online space is not only filled with local content but also heavily influenced by Russian state media, particularly via YouTube, VKontakte, and Telegram channels. As one Kazakh fact-checker noted, "we are very susceptible to Russian propaganda, especially outside the big cities."

This susceptibility is especially pronounced among rural youth or those without media literacy training. In Kazakhstan, polls in 2022 showed around 30 percent of citizens expressed approval for Russia's war in Ukraine, a stance widely attributed to unchecked exposure to Russian narratives online. Younger Kazakhs were somewhat less pro-Russian than older generations but still echoed themes likely drawn from unverified social media posts or Russian-language broadcasts.

Kyrgyz youth, benefiting from a relatively freer press environment, are considered to be slightly more discerning. Nonetheless, misinformation spreads quickly there as well, particularly on sensitive issues like ethnic tensions or health rumors. During the COVID-19 pandemic in 2020, fake news about supposed cures and vaccine dangers spread widely through Kyrgyz social networks. The Ministry of Health was forced to issue emergency counter-statements on Telegram and Facebook—a scenario

(https://ijnet.org/en/story/kazakhstans-factcheckkz-verifies-information-times-crisis)

⁷⁵ Hanna Valynets, "Kazakhstan's Factcheck.kz verifies information in times of crisis," International Journalists' Network (IJNet), October 11, 2023.

⁷⁶ Central Asia Barometer, "Central Asia Barometer Survey Waves 1–9 (2017–2021)," 2024. (https://discuss-data.net/dataset/lafc5235-eb1f-4a23-80b6-036515ce1916/)

repeated across Uzbekistan, Tajikistan, and Kazakhstan—highlighting how vulnerable young people remain to misleading content.⁷⁷

Media Literacy Programs: Emerging Efforts Across the Region

Recognizing the growing risks of misinformation, a variety of actors including governments, NGOs, independent journalists, and international donors have launched media and digital literacy initiatives targeting youth across Central Asia. Kazakhstan has emerged as a regional frontrunner in institutionalizing this work. The MediaNet International Journalism Center in Almaty, in partnership with Internews, developed a pilot media literacy textbook for high school students (grades 9 to 11), now being tested in select schools. Factcheck.kz, one of the most established factchecking outlets in the region, has held dozens of youth-focused workshops across Kazakhstan and contributed to similar trainings in Kyrgyzstan, Tajikistan, and Uzbekistan. They also produced teacher manuals and textbooks to help schools integrate fact-checking exercises into their curricula. These initiatives show measurable, if modest, results: surveys of Kazakh teachers report improved student ability to identify false information following training sessions.⁷⁸

Kyrgyzstan has relied heavily on donor-funded projects. The USAID-backed Media-K program trained youth leaders who then conducted workshops in all seven provinces, extending reach beyond major cities. Local NGOs like Wings of Liberty have experimented with creative

⁷⁷ Freedom House. "Kyrgyzstan: Freedom on the Net 2020 Country Report." 2020. (https://freedomhouse.org/country/kyrgyzstan/freedom-net/2020)

⁷⁸ Factcheck.kz. "Anti-Fake: Kazakhstan Has a School Textbook on Media Literacy." December 9, 2019. (https://efmn.factcheck.kz/en/2019/12/09/anti-fake-kazakhstan-hasa-school-textbook-on-media-literacy/)

campaigns like online quizzes, meme contests, and comics about spotting fake news to engage teenagers in critical thinking training.⁷⁹

Uzbekistan has begun integrating digital literacy into broader education reforms. The UNDP and Ministry of Digital Technologies are preparing a nationwide assessment of citizens' digital skills to inform future policy. ⁸⁰ Universities in Tashkent now occasionally host open lectures on media literacy, and the first independent fact-checking site Factcheck.uz, launched with mentorship from Kazakh peers, has started producing Uzbeklanguage verification content to fill a longstanding gap.

In Tajikistan, where media controls remain tight, efforts are more limited and often conducted discreetly. Internews and local partners have organized closed-door seminars for journalism students on verification techniques and "information hygiene." While these programs have small audiences, they represent some of the only spaces where Tajik youth can learn how to critically evaluate information in an environment that otherwise discourages questioning official narratives.

Cultural and Educational Obstacles

Despite these promising initiatives, structural barriers hinder progress. Critical thinking is not a traditional focus of education systems in the region, which historically emphasize rote memorization and deference to authority. Encouraging students to challenge unverified claims—even

⁷⁹ Institute for War and Peace Reporting, "IWPR Annual Report 2024," 2025. (https://iwpr.org/iwpr-annual-report-2024/)

⁸⁰ International Trade Centre, "How the UN Guides Uzbekistan's Youth in Its Digital Journey," ITC News and Events, Sep 18, 2024. (https://www.intracen.org/news-and-events/news/how-the-un-guides-uzbekistans-youth-in-its-digital-journey)

 $^{^{\}rm 81}$ IREX, "Vibrant Information Barometer 2023: Tajikistan." 2023.

⁽https://www.irex.org/files/vibrant-information-barometer-2023-tajikistan.pdf)

those from teachers or textbooks—can clash with cultural norms that value respect for elders and established hierarchies.

Political dynamics also shape how far media literacy programs can go. Kyrgyzstan (until recent political shifts) welcomed media literacy education as part of democratic development, while Tajikistan's government has been ambivalent—promoting it as a tool to counter "extremist propaganda" and foreign influence but discouraging any scrutiny of state-controlled media or official statements. Uzbekistan faces similar tensions: while post-2016 reforms have opened space for discussion, digital literacy is still framed more as a technical skillset and a tool for safe internet use, rather than as a means of questioning misinformation from authorities or politically sensitive sources.

The Role of Public Figures and Social Influence

Youth information behaviors in Central Asia are strongly shaped by the voices they trust online, particularly social media influencers and bloggers. In many cases, a popular public figure debunking a rumor or encouraging fact-checking resonates more with youth than a dry, official PSA from a government agency. For example, during the COVID-19 pandemic in Kazakhstan, several high-profile bloggers voluntarily took on the role of myth-busters, posting Instagram stories that challenged viral falsehoods about the virus and vaccines. Similarly, in Kyrgyzstan, a youth-led volunteer group created humorous, colloquial YouTube videos showing how to verify news sources, making media literacy relatable—and even "cool"—for their peers.⁸²

But this dynamic cuts both ways. When a charismatic influencer spreads misinformation, intentionally or not, their followers often amplify it without hesitation. Central Asia saw this repeatedly from 202 to 2021, when

⁸² https://www.youtube.com/watch?v=pFoE7a9GrME&t=2s, https://www.youtube.com/watch?v=-I1CT3uMAtk

Instagram personalities and Telegram admins with large audiences circulated conspiracy theories about vaccines, 5G technology, or regional unrest, sometimes gaining more traction than subsequent corrections from fact-checkers. These examples underscore that social influence can be a powerful accelerator of both truth or falsehood, depending on the creator.

Gaps in Behavior - Why Youth Do Not Always Verify

Despite valuing accuracy, many young people still skip the extra step of verification for several reasons they themselves identify on social media:

- Time and Convenience: Verification requires additional effort that doesn't fit the rapid-scrolling habits of TikTok, Instagram, or Telegram.
- Limited Awareness of Tools: Outside a relatively small, mediasavvy circle, many youth lack reliable go-to sites or apps for factchecking.
- Peer Trust: News received via friends, family, or familiar Telegram channels is often assumed credible by social proof, not independent scrutiny.
- 4. Desensitization and Fatigue: The overwhelming volume of lowquality or dubious information can lead youth either to believe content uncritically or tune out altogether.

Moreover, digital literacy gaps extend beyond fact-checking. Cybersecurity awareness remains low: personal data, including bank details, is often shared freely both online and offline. In Uzbekistan, for example, it is still common to hear people announce their card PINs in public or hand them over casually to shopkeepers. Youth tend to learn digital safety practices faster than older generations, but structured education on privacy, security, and safe online habits remains limited.

Looking Forward

Media and digital literacy among Central Asian youth is on an upward trajectory, thanks to both exposure to diverse information sources and dedicated educational programs. The encouraging sign is that younger teens today are likely to grow up with more structured media literacy training than previous cohorts. NGOs, independent media, and international partners (the Organization for Security and Cooperation in Europe [OSCE]; the United Nations Educational, Scientific and Cultural Organization [UNESCO]; U.S. embassies; and others) are actively pushing this agenda:

- UNESCO's Institute for Information Technologies in Education has conducted online trainings for Kazakh youth leaders on media literacy skills.
- The Go Viral initiative, active in all five Central Asian states, helps young content creators learn to counter misinformation and produce high-quality, positive content online.

Bridging the gap between knowing and doing will require two major shifts:

- Making fact-checking tools simple, fast, and accessible (e.g., mobile apps or chatbots in local languages).
- Embedding interactive, critical-thinking exercises into school curricula, so that verification habits become second nature, not a tedious extra step.

Over time, these efforts aim to create a digital culture where accuracy is the default expectation, empowering youth not only to resist misinformation from both domestic propaganda and foreign influence, but to actively foster healthier, more informed online spaces.

In conclusion, Central Asian youth stand at a pivotal juncture in the information sphere: more connected and informed than any generation before them, yet also more vulnerable to manipulation and misinformation.

While they overwhelmingly endorse truth and accuracy as core values, the habits, tools, and institutional supports needed to consistently uphold those values are still taking shape. Strengthening media and digital literacy is therefore not just an educational priority, but a strategic investment in building an informed, resilient citizenry. This challenge cannot be separated from the broader question of how the region's internet is governed—a topic we turn to next.

Structural and Regulatory Constraints on Digital Empowerment

While youth interest and growing skills fuel digital uptake, the broader structural and policy environment in each Central Asian country can either enable or limit their ability to fully participate online. Access to affordable, reliable internet, the rules governing online spaces, and the regulatory costs of digital engagement all shape whether young people can turn connectivity into genuine empowerment. This section examines key constraints and emerging improvements, focusing on affordability, infrastructure, censorship and online freedoms, and regulatory barriers, highlighting both regional trends and country-specific differences.

Affordability of Internet Access

Cost remains a significant barrier for many young people, particularly those outside major cities or from low-income households. While mobile data prices have fallen compared to a decade ago, they still consume a meaningful share of family budgets. According to International Telecommunication Union (ITU) data, a monthly 2 GB mobile broadband plan in Uzbekistan cost about 0.7 percent of GNI per capita in 2023 (roughly \$1.50) – seemingly affordable on average. Yet a 5 GB fixed broadband package costs over 4 percent of GNI per capita, placing higher-speed, stable internet out of reach for many households. In Tajikistan, where incomes are lower, even basic mobile data can strain budgets. Many young people

⁸³ International Telecommunication Union, "The Affordability of ICT Services 2023," Geneva: ITU, 2023.

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therefore resort to free Wi-Fi at universities or cafes, ration their data with scratch cards, or rely on bare-minimum packages that allow only messaging apps — counting them as "internet users" in statistics, but preventing meaningful participation in remote learning, digital skills training, or online work.

Governments in the region have acknowledged these cost challenges and taken steps to mitigate them. Kazakhstan benefits from competition among carriers, keeping rates relatively low, and during the pandemic the government zero-rated educational websites to make remote schooling more accessible. Uzbekistan has cut provider tariffs and expanded network capacity, fueling a reported 107 percent jump in social media users between 2023 and 2024.84 Nonetheless, structural factors including landlocked geography and reliance on expensive international bandwidth routed through Russia or China keep prices above the global average. Additional regulatory costs add friction: for example, Uzbekistan's mandatory IMEI registration fee can deter poorer youth from acquiring or replacing smartphones, pushing some toward gray-market devices with unstable connections.85 While most urban youth can afford basic mobile access, highspeed, reliable connectivity - essential for serious online education or remote professional work – remains unevenly accessible. This deepens existing urban-rural and class divides in digital opportunities, limiting the transformative potential of internet access for many young people.

⁸⁴ Kun.uz, "Uzbektelecom Reduces Prices for External Internet Channel," Jun 5, 2025. (https://kun.uz/en/57203607); DataReportal, "Digital 2024: Uzbekistan," Datareportal, Jan 2024.

⁸⁵ Kun.uz. "Uzbekistan's IMEI system: A billion-dollar burden on citizens." July 16, 2025. (https://www.kun.uz/en/news/2025/07/16/uzbekistans-imei-system-a-billion-dollar-burden-on-citizens)

Infrastructure and Connectivity Gaps

Despite progress in recent years, connectivity infrastructure across Central Asia remains uneven, creating a clear divide in youth access to the digital world. Geography is a major factor: mountainous regions of Kyrgyzstan and Tajikistan and remote provinces of Kazakhstan and Uzbekistan still suffer from weak or unreliable coverage. In Tajikistan's Gorno-Badakhshan region, for example, fiber optic lines are only just beginning to be installed, and frequent power outages disrupt both mobile towers and home usage. Many Tajik youth in such areas cannot participate in online education or work on equal footing with urban youth, sometimes traveling to the capital or even abroad just to complete basic digital tasks, such as registering for online university exams.

In Uzbekistan, 4G networks have historically been concentrated in urban centers. Rural villages often depend on outdated 2G/3G networks or small-scale WiMAX providers with limited reach. Slow speeds mean rural youth are largely confined to lightweight apps like WhatsApp or text-only Telegram channels, while urban youth stream video, participate in online courses, and create richer digital content. Kazakhstan's national program to connect every village with broadband by laying fiber and expanding 3G/4G coverage has made partial progress but has fallen short of targets due to logistical and funding obstacles. These infrastructure gaps mean that rural voices are systematically underrepresented online, not due to lack of interest or skill, but because poor connectivity makes sustained digital engagement difficult or frustrating.⁸⁶

⁸⁶ Lilia Burunciuc, "How Central Asia can ensure it doesn't miss out on a digital future."

Censorship and Internet Freedom

Alongside infrastructure challenges, restrictions on internet freedom shape how young people access and use information online. The degree of censorship and control varies across the region, but all four countries have seen attempts by authorities to tighten their grip on digital spaces.

Kyrgyzstan historically had the most open internet environment, with little routine blocking of social media and a vibrant independent press online. However, this openness is fading. In 2022, the government used a new "False Information" law to block the website of Azattyk (RFE/RL Kyrgyz Service) for two months.⁸⁷ The law, passed in 2021, allows authorities to block or fine sources of vaguely defined "false information" online.⁸⁸ For Kyrgyz youth, the temporary silencing of a respected independent news outlet was an alarming sign that their previously free internet could be curtailed at any moment.

Kazakhstan has long exercised more direct control, particularly in moments of political unrest. The most dramatic example came during the nationwide protests of January 5 to 10, 2022, when the government imposed a near-total internet shutdown, cutting off 95 percent of users. The blackout disrupted not only social media but also essential services like mobile payments and even emergency communications. Analysts estimate the shutdown cost the economy over \$400 million. ⁸⁹ More importantly, citizens were left in an

⁸⁷ Committee to Protect Journalists. "Kyrgyzstan freezes Radio Azattyk bank account under money laundering laws." November 4, 2022.

⁽https://cpj.org/2022/11/kyrgyzstan-freezes-radio-azattyk-bank-account-under-money-laundering-laws/)

⁸⁸ Freedom House. "Kyrgyzstan: Freedom on the Net 2022 Country Report." 2022. (https://freedomhouse.org/country/kyrgyzstan/freedom-net/2022)

⁸⁹ Joanna Lillis, "Central Asia's Government-Ordered Internet Blackouts Costing Millions," Eurasianet, Jan 4, 2023. (https://eurasianet.org/central-asias-government-ordered-internet-blackouts-costing-millions); Internet Society, "Shutdown –

information vacuum. For many young Kazakhs, this event was formative: it revealed how fragile their digital lifeline was and how quickly access could be revoked. Since then, NGOs such as Shutdown.kz have pushed for legislation banning such shutdowns, arguing that many lives were lost because people were cut off from vital information during the crisis.

Outside of shutdowns, Kazakhstan maintains a "kill switch" law allowing authorities to order telecoms to cut or throttle service for national security reasons. Encrypted apps like Signal have at times been blocked, and social media services face slowdowns during politically sensitive moments. Youth increasingly rely on VPNs to access blocked content, while many self-censor, knowing that the state commonly monitors "extremist" or dissident posts online. The result is a digital environment where access to information is contingent not only on infrastructure but also on political tolerance, which can shift rapidly.⁹⁰

Country-Specific Controls and Regulatory Burdens

Uzbekistan under President Islam Karimov (pre-2016) had a heavily censored internet environment. Independent news sites, social media platforms, and even some search engines were filtered, with no tolerance for online criticism of the government. The landscape shifted dramatically after 2016 when the new administration unblocked major platforms such as YouTube, Facebook, Instagram, and long-banned news sites between 2018 and 2019. For many young Uzbeks, this opened access to a global digital ecosystem that older siblings could only reach via VPNs. Yet liberalization

Kazakhstan," Jan 5, 2022. (https://pulse.internetsociety.org/en/shutdowns/kazakhstan-cuts-off-internet-access/)

⁹⁰ Baurzhan Rakhmetov and Brandon Valeriano, "The Consequences of Internet Shutdowns in Kazakhstan," Council on Foreign Relations, February 23, 2022. (https://www.cfr.org/blog/consequences-internet-shutdowns-kazakhstan)

⁹¹ Nikita Makarenko, "Media landscape in Uzbekistan." The Foreign Policy Centre, April 24, 2023. (https://fpc.org.uk/media-landscape-in-uzbekistan/)

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has not been linear. In mid-2021, authorities restricted Twitter, TikTok, VKontakte, and Skype, citing non-compliance with a data localization law requiring foreign platforms to store user data on Uzbek servers. TikTok was officially blocked from July 2021, though it remained intermittently accessible, often via VPNs, before reports suggested it was quietly unblocked after negotiations. Even Telegram and YouTube were briefly disrupted in late 2021 following the same issue, only to be restored hours later after public outcry. These swings create a climate of uncertainty: youth are freer to create and consume content than a decade ago, but they know that access can vanish overnight and that the state retains centralized control through Uztelecom, the main international internet gateway, allowing both monitoring and filtering of traffic. Periodic blocking of seemingly benign tools, like the Opera browser, Pareinforces the sense that digital openness remains conditional on state discretion, even as independent news outlets (BBC Uzbek, RFE/RL Uzbek, etc.) are now accessible.

Tajikistan presents the most constrained environment of the four countries. Authorities routinely block popular websites and social networks without formal announcements, especially during protests or political unrest. Facebook and YouTube access has repeatedly been disrupted when sensitive material circulates online. During the 2021–2022 unrest in the Gorno-Badakhshan Autonomous Region, authorities reportedly cut or heavily filtered internet in affected areas, leaving local youth with almost no access to independent information about events unfolding around them. ⁹⁴ Many Tajik youth assume their online activity is monitored and practice

⁹² Freedom House. "Uzbekistan: Freedom on the Net 2024 Country Report." 2024. (https://freedomhouse.org/country/uzbekistan/freedom-net/2024)

⁹³ Ibid.

⁹⁴ Nazerke Syundyukova ,"Authorities of Tajikistan restricted access to social networking sites again," *The Qazaq Times*, April 24, 2019. (https://gazaqtimes.com/en/article/60874)

strict self-censorship. Much of the more critical or freewheeling Tajik digital discourse comes from the diaspora in Russia or Europe, where youth create YouTube and Instagram content that domestic audiences consume through sporadic access or VPNs. Combined with high internet costs and a state-linked telecom monopoly, these barriers amount to a form of "soft censorship," limiting both what is available and how freely young people can engage online.⁹⁵

Beyond content restrictions, regulatory frameworks across the region can hinder digital entrepreneurship and innovation. In Uzbekistan, the rules around venture funding and crowd funding are unclear for startups, though reforms have begun to address this. The launch of an "IT Park" regime offers tax breaks for registered IT firms, attracting many young entrepreneurs with benefits like zero profit tax. 96 Kazakhstan has established the Astana Hub with similar incentives. However, outside these designated enclaves, red tape remains a challenge. Until 2022, Uzbek bloggers earning ad revenue faced uncertainty about how to register and pay taxes. New regulations now classify many vloggers as legal entities for tax purposes—a move some welcomed for legitimizing online work, while others fear it could increase state control over digital voices. Kyrgyzstan has historically allowed a lighter regulatory touch, enabling small-scale Instagram sellers and other informal digital businesses to thrive without onerous licensing. But the adopted legislation in 2025, such as a controversial "Media Law," raised alarms on mandatory registration of bloggers and online outlets, potentially constraining youth-driven digital creativity under the banner of regulation.97

⁹⁵ Freedom House. "Tajikistan: Nations in Transit 2021 Country Report." 2021. (https://freedomhouse.org/country/tajikistan/nations-transit/2021)

⁹⁶ IT Park. 2025. (https://it-park.uz/en/itpark/residents)

⁹⁷ Catherine Putz, "Kyrgyz President Signs New Media Law Making Registration Mandatory," *The Diplomat*, August 12, 2025. (https://thediplomat.com/2025/08/kyrgyz-president-signs-new-media-law-making-registration-mandatory/)

E-Governance, Freedom vs. Control, and Legal Barriers to Digital Innovation

Another structural factor shaping youth digital empowerment is the state of e-governance and the availability of digital public services. Kazakhstan and Uzbekistan have made notable progress in this area – Uzbekistan ranked 63rd globally in e-government services in 2024,98 reflecting new portals where youth can apply for jobs, pay fines, or register businesses online. However, these services are not always seamless. According to the survey, technical glitches, opaque decision-making, and perceived surveillance undermine trust. For instance, mandatory SIM card re-registration campaigns or university directives to use state-backed messaging apps have been criticized by young users as more about control than convenience, illustrating the double-edged nature of state-driven digital modernization.

The broader policy environment oscillates between enabling youth innovation and reinforcing sovereign control over cyberspace. According to the survey, in Kyrgyzstan a largely open internet fostered outspoken civic engagement until recent years. Young journalists and activists flourished in this environment, fact-checking officials, organizing campaigns, and shaping public debates. If restrictive trends such as the blocking of independent media persist, this civic energy may be stifled, pushing young talent either into silence or abroad. In Kazakhstan and Uzbekistan, a "controlled freedom" prevails: youth can be creative and mildly critical online, but everyone understands the boundaries. As a result, some of the most talented entrepreneurs and outspoken creators relocate to freer digital environments to fully realize their potential. In Tajikistan, heavy-handed

⁹⁸ United Nations E-Government Knowledgebase. "Uzbekistan: Country Information." 2024. (https://publicadministration.un.org/egovkb/en-us/Data/Country-Information/id/186-Uzbekistan)

⁹⁹ Putz, "Kyrgyz President Signs New Media Law Making Registration Mandatory."

control has arguably hindered local digital ecosystems altogether. Brain drain is particularly visible in IT and journalism, and the domestic market lacks homegrown Tajik-language apps or platforms comparable to those in neighboring countries.

Despite censorship, young people have developed sophisticated coping strategies. VPN usage is widespread across Central Asia, allowing access to blocked platforms. When Uzbekistan blocked sites in the past, tech-savvy youth quickly spread guides on proxy servers and VPN apps. This cat-and-mouse game has fostered a generation adept at circumvention, but it adds friction to daily online life. Using VPNs may draw unwanted attention from authorities or is simply too cumbersome for casual users, limiting the reach of certain information and platforms despite nominal workarounds.

The legal environment for digital entrepreneurship is still underdeveloped, creating uncertainty for young innovators. Intellectual property enforcement, online consumer protection, and digital contract rules are still evolving. Kazakhstan is the most advanced in this space, having introduced regulations that allowed fintech successes like Kaspi, a widely used mobile wallet and e-commerce platform. Uzbekistan is moving in the same direction, with recent legalization of cryptocurrency trading in designated economic zones attracting young tech enthusiasts. ¹⁰⁰ Kyrgyzstan and Tajikistan lag further behind, leaving aspiring developers unsure how to handle online payments, launch fintech apps, or secure their intellectual property. Excessive red tape or ambiguous rules can discourage youth from pursuing digital ventures, reinforcing a pattern where innovation either stalls or moves abroad.

In summary, structural factors from affordability and infrastructure gaps to censorship and regulatory uncertainty profoundly shape how youth in the region experience the digital world. Across Central Asia, the most pressing

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¹⁰⁰ PriFinance. "Cryptocurrency License in Uzbekistan." 2025. (https://prifinance.com/en/cryptocurrency-license/uzbekistan/)

needs are to expand rural connectivity and reliable electricity, reduce the cost of high-quality internet, and create policies that enable rather than restrain online activity. Heavy-handed measures like nationwide shutdowns or blanket content blocks not only curb free expression but also cut youth off from education, work, and civic participation, with tangible social and economic costs, as Kazakhstan's 2022 blackout demonstrated. By contrast, enabling policies such as Uzbekistan's mass school connectivity drives or Kazakhstan's investment in tech hubs have shown that targeted reforms can rapidly widen opportunities for young people to learn, innovate, and build digital livelihoods. For both national governments and development partners, the challenge is clear: invest in infrastructure, protect internet freedom, simplify rules for digital entrepreneurship, and update legal frameworks to match technological change. Only then can Central Asia's young, tech-hungry generation fully translate its digital potential into lasting empowerment and development.

Conclusion and Policy Implications

This analysis provides clear answers to the core questions guiding this study, while highlighting broader themes of inclusion, resilience, and empowerment. One key finding is that platform concentration has become a double-edged sword for Central Asia's youth information diets. The dominance of a handful of social networks and messaging apps particularly Telegram, Instagram, YouTube, and TikTok – has given young people unprecedented access to content and voices beyond state-controlled media. Yet it also narrows their day-to-day news sources. Reliance on a limited set of algorithm-driven feeds and curated channels reinforces echo chambers and filter bubbles: youth are repeatedly exposed to like-minded or sensational content while missing out on diverse perspectives. As a result, when rumors or propaganda spread on these dominant platforms, they often outpace fact-checks or alternative narratives, making misinformation more likely to take hold. In short, high platform concentration amplifies whatever content dominates the feed – true or false – while constraining corrective or pluralistic information flows. Strengthening informational resilience among youth is therefore essential, not only to help them critically navigate this environment but also to encourage a more diverse and reliable information ecosystem across platforms.

Second, the rise of mobile-first digital habits is clearly opening new socioeconomic pathways for youth, but the strength of these pathways is shaped by persistent infrastructure and policy frictions. Across Kazakhstan, Kyrgyzstan, Uzbekistan, and, to a lesser extent, Tajikistan, smartphones are now the primary gateway to the internet for most young people. This shift has unlocked opportunities: youth are launching micro-businesses on Instagram and Telegram, joining the global gig economy as freelancers and content creators, and accessing online education and job information that can expand their prospects. In principle, widespread mobile connectivity should level the playing field by allowing people to learn, work, or build an enterprise regardless of geography. In practice, the benefits are uneven. Reliable, affordable connectivity in urban centers and in countries with stronger digital infrastructure correlates with vibrant startup scenes and growing online employment. But where rural coverage is patchy, data costs are high, or regulations are unclear, mobile access stalls short of economic empowerment. A rural youth struggling with 3G speeds cannot join a coding bootcamp or market products nationally; a young entrepreneur facing bureaucratic hurdles or lacking digital payment options may abandon an idea before it scales. Mobile-first access, in short, is necessary but not sufficient for digital dividends. Unlocking the full potential of Central Asia's digital-native generation requires closing remaining infrastructure gaps and removing policy barriers that stand between a smartphone and a livelihood.

Third, there is a persistent gap between youth awareness of misinformation and their routine fact-checking behavior, but targeted interventions can address this gap. Surveys show that nearly all young people in Central Asia profess to value accuracy online and say they do not want to be misled. Yet in practice, only about half report regularly verifying information before believing or sharing it. Fast-scrolling habits on mobile feeds favor reaction over reflection: headlines and sensational posts travel instantly through group chats, while corrections are slower, less engaging, and often overlooked. Many youths also lack easy-to-use verification tools in their own languages or the skills to trace images and sources, leaving fact-checking cumbersome. Overconfidence compounds the problem, as young users often trust familiar figures or assume they can "spot" fakes intuitively. These habits are rooted in broader educational gaps: critical thinking and

media literacy have only recently begun entering school curricula, leaving many young adults without systematic training in evaluating sources. The result is a generation that knows misinformation is a threat but struggles to counter it in daily practice. Closing this gap requires making verification simple, accessible, and socially reinforced. Schools should build fact-checking skills early on; tech platforms and civil society can meet youth where they are with tools like quick myth-busting videos on TikTok or Telegram bots that verify content on demand. Influencers can model "pause before you share" behavior to make fact-checking a social norm. With the right mix of education, technology, and peer influence, verification can become a default habit rather than an occasional exception – strengthening young people's resilience to misinformation in an algorithm-driven news environment.

These findings carry far-reaching implications for digital inclusion, resilience, and youth empowerment in Central Asia. At stake is whether this rising generation can fully harness the digital revolution for personal and societal benefit – or whether structural gaps and policy missteps will blunt its promise.

Digital inclusion remains the foundation. Without reliable, affordable internet access and devices, large segments of youth risk being left on the margins of an increasingly online world. Progress is evident as most young Central Asians are now connected, but divides persist, especially along rural-urban, income, and gender lines. Closing these gaps is not just a matter of fairness: it will determine how widely opportunities like online education, entrepreneurship, and civic participation can reach, shaping the size and diversity of the region's future talent pool.

Resilience in the digital realm is equally critical. As youths depend on online media for information and interaction, their ability to withstand misinformation, propaganda, and online harms will influence social cohesion and political stability. A hyper-connected but credulous

generation is vulnerable to manipulation, health scares, and extremist narratives spreading unchecked. Conversely, a media-literate generation can become a bulwark against falsehoods, pushing for transparency and accountability in governance.

Youth empowerment is both an outcome and a driver of these processes. Empowerment means enabling young people not just to consume digital content, but to create, innovate, and participate meaningfully in their economies and communities. The evidence suggests Central Asian youths are eager and capable of driving change: they adopt new apps and skills quickly, launch online businesses when barriers are low, and express progressive ideals about truth and openness. But this potential is fragile. When access is curtailed or trust in information erodes, energy that could fuel innovation and civic engagement risks being squandered or even redirected into frustration, disengagement, or harmful misinformation cycles.

Taken together, digital inclusion, resilience, and empowerment form a positive feedback loop. Inclusive access provides the tools to engage. Resilience engagement informed and constructive. ensures is Empowerment channels engagement into real economic and social contributions. Central Asia's experience shows both the promise of this vision and the costs when one element lags behind others. For policymakers, the implication is clear: infrastructure, education, and rights must be advanced in tandem to unlock the full potential of the region's digital generation. A piecemeal approach will not suffice, and a holistic strategy is needed to ensure that the next decade of connectivity uplifts youths and, through them, society as a whole.

Methodological Note

Study Design: The study uses both a mixed-methods research strategy incorporating both an original multi-country youth survey and a wideranging comparative secondary data analysis. The main data are based on the survey of 468 youth (ages 15-29) in Kazakhstan (112), Kyrgyzstan (138), Tajikistan (104), and Uzbekistan (114) that was conducted in 2024. The online survey was designed to capture individual-level experiences and perceptions of digital technology use. The survey was targeted at respondents recruited through youth networks and social media channels within each country. The questionnaire consisted of multiple-choice and Likert-scale questions grouped by major themes: access and devices (e.g. access to internet, possession of devices, time spent online on a daily basis), platform usage (the social media/app preferences and favorite pieces of information, criteria for choosing social media platforms and the factors influencing those choices, digital skills and opportunities (self-rating their digital skills and how important digital skills are to their career, use of online resources for learning or business), news and information habits (the predominant news sources, trust in information, frequency of facts checking or verification). The survey provides a cross-country quantitative snapshot of how young Central Asians engage with the digital world.

Comparative Secondary Research: To provide context and triangulate the survey findings, a large range of secondary sources was used for the study, including academic papers, reports by international organizations, and government data. We also reviewed previous regional surveys and data (e.g. the series of Central Asia Barometer polls and other surveys of the youth). Key comparative metrics included national internet penetration

rates and mobile connectivity figures, which were found in global digital reports (We Are Social/DataReportal, Statista, and GSMA studies) and official data on the number of internet users as well as on urban-rural demographics in each country through official government sources (e.g. Ministry of IT reports on internet users and national census data on urban-rural demographics). Similarly, reports from NGOs and development organizations, both qualitative and quantitative, were reviewed to deepen understanding of media consumption and literacy. We also added the data of governance and freedom index in a comparison to show the regulatory environment of the four countries. This approach of data triangulation ensures the validity of our findings.

Mixed-Methods Rationale: The combination of quantitative survey data with qualitative and secondary-source synthesis allows for a more robust and policy-relevant analysis. The survey explores young people's behaviors and attitudes (e.g., what devices they use, how they learn online, why they trust or distrust information) at an empirical level and incorporates contextual nuances across different country settings. Secondary research complements this by adding depth and breadth, shedding light on historical, economic, or cultural roots of observed trends and offering a cross-sectional perspective beyond our sample, as national-level data and prior studies cover broader populations and longer time spans. The mixed-method methodology appears to be particularly appropriate in an applied policy study: the quantitative part provides credibility through numbers and statistical trends, whereas the qualitative approach explores those patterns and links them to the real cases. Merging these approaches allows us not only to measure what Central Asian youth are doing online, but also to explain why these patterns occur and how they might be shifted toward greater inclusion and empowerment. This methodology aligns with the purpose of our study: it produces findings that are practically useful to policymakers (e.g., revealing digital skill gaps or identifying platforms most vulnerable to misinformation) and grounds recommendations in a well-rounded understanding of the issue.

Limitations: There are various limitations in our methodology. First, the survey is somewhat urban-biased: young people in remote areas or with poor internet connections are likely underrepresented, as urban youth were more responsive to a digital survey than their rural counterparts. Second, participation in the survey was self-selected rather than purely random, which may skew the sample toward more digitally engaged or educated youth. This means the findings, while indicative, are not statistically representative of all 15–29 year-olds in each country. Third, the research is cross-sectional—a one-time snapshot—which prevents analysis of changes in behavior over time. Being a non-longitudinal study, we can only infer the correlations (e.g. between mobile use and entrepreneurial activities) but not establish directionality and evolution. In addition, some contextual data from secondary sources vary by year and methodology. We attempted to mitigate this by favoring the most recent and reliable data from comparable sources, but inconsistencies in definitions (for example, what counts as an "internet user" or how digital literacy is measured) present comparability challenges. Despite these caveats, the evidence base is sufficient to support the study's analytical claims. Where possible, we highlight these gaps to ensure conclusions are drawn cautiously.

In general, this mixed-methods design combines primary survey data from youth with statistically verified, cross-referenced information about the region, aiming to generate actionable, policy-relevant insights. This methodology aligns with the principles of digital inclusion, resilience, and youth empowerment. By design, the data reflect the voices of young users while also highlighting structural factors that policy can address. This research process moves beyond a purely academic examination of youth digital opportunities in Central Asia, aiming instead to directly inspire and inform practical, step-by-step guidance for governments, development

partners, and stakeholders working to build a more open, equitable, and empowering digital future for the region's next generation.

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