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NNOVATIVE TRENDS IN CENTRAL ASIAN YOUTH DIPLOMACY: BASED ON THE EXPERIENCE OF UZBEKISTAN AND KAZAKHSTAN IN DEVELOPING IT EDUCATION

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ABOUT ARTICLE

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Kalit so‘zlar: kar va eshitishida nuqsoni bo‘lgan bolalar; eshitish qobiliyatini rivojlantirish; audial-verbal terapiya; koxlear implantatsiya; implantatsiyadan keyingi reabilitatsiya; imo-ishora bilan qo‘llab-quvvatlangan nutq; ikki tilli ta’lim; erta aralashuv; inklyuziv ta’lim; maxsus pedagogika.

Ключевые слова: Центральная Азия, дипломатия, IT-парк, молодежные IT-парки, миграция, IT-образование, «UZ-кодеры», «Курсера», цифровое поколение, бета-поколение, форсайт, альфа-поколение, искусственный интеллект, трансформация, «Цифровой Казахстан», «1 миллион программистов».

Abstract. The article analyzes the processes of integration of youth diplomacy in the countries of Central Asia based on innovative approaches aimed at the development of digital education. Using the examples of Uzbekistan and Kazakhstan, the active participation of young people and interstate cooperation under conditions of IT transformation and accelerated reforms are examined through a comparative and analytical approach. In addition, against the backdrop of political transformations taking place in the region, the article analyzes foreign policy cooperation in the development of digital education, the opportunities created for youth, the expected outcomes and prospects, and puts forward proposals to address challenges related to strengthening youth diplomacy as an instrument of “soft power.”

Annotatsiya: Maqolada Markaziy Osiyo mintaqasida yoshlar diplomatiyasining raqamli ta’limni rivojlantirishga qaratilgan innovatsion yondashuvlar asosida integratsiyalashuv jarayonlari tahlil qilinadi. O‘zbekiston va Qozog‘iston misolida IT-transformatsiya hamda jadal islohotlar sharoitida yoshlarning faol ishtiroki va o‘zaro hamkorligi qiyosiy-analitik yondashuv asosida yoritilgan. Shuningdek, mintaqada kechayotgan siyosiy transformatsiyalar fonida raqamli ta’limni rivojlantirishga qaratilgan tashqi siyosiy hamkorlik, yoshlarga yaratilayotgan imkoniyatlar, kutilayotgan natijalar va istiqbollar tahlil qilinib, yoshlar diplomatiyasini “soft power” vositasi sifatida mustahkamlash yo‘lidagi muammolar hamda ularni bartaraf etish bo‘yicha takliflar ilgari surilgan.

Аннотация: В статье анализируются процессы интеграции молодежной дипломатии в странах Центральной Азии на основе инновационных подходов, направленных на развитие цифрового образования. На примере Узбекистана и Казахстана в рамках сравнительно-аналитического подхода освещаются активное участие молодежи и межгосударственное сотрудничество в условиях IT-трансформации и ускоренных реформ. Кроме того, на фоне политических

трансформаций, происходящих в регионе, анализируются внешнеполитическое сотрудничество в сфере развития цифрового образования, создаваемые для молодежи возможности, ожидаемые результаты и перспективы, а также выдвигаются предложения по преодолению проблем, связанных с укреплением молодежной дипломатии как инструмента «мягкой силы».

INTRODUCTION

The 21st century—the era of digital technologies—has posed a condition of a global historical turning point before international educational standards. As technology is one of the defining forces of generational change, all standards of social life inevitably evolve and develop in harmony with the emerging digital generation.

Therefore, the primary task facing the education systems of Uzbekistan and other Central Asian countries with young demographic structures is the full transition to a digital education system. As McCrindle predicts, "in an era when digital generations are being formed, their formative years will be characterized by a stronger emphasis on personalization—artificial intelligence algorithms will adapt their learning, purchasing, and social interactions in ways we are only beginning to imagine today."

However, despite standing at such a foresight horizon, to what extent have the region's efforts to develop IT education been realized, and how tangible are the results today?

MATERIALS AND METHODS

It should be noted that today Central Asian states, particularly Uzbekistan and Kazakhstan, are actively integrating traditional education with digital education and striving for its maximum development.

Demand for IT Education in Central Asia

The growing need for IT education in Central Asia is driven by:

- Meeting the educational needs of Alpha and Beta generations;
- Integrating youth into global digital education standards;
- Increasing demand in the labor market for highly qualified specialists capable of working with digitalized systems;
- Opportunities for remote work and cooperation with international IT companies.

Government Policies and Initiatives

In recent years, the following governmental policies and projects have been implemented:

- Uzbekistan: IT Park, "One Million Programmers", Uz.koders, and modern IT universities;
- Kazakhstan: the "Digital Kazakhstan" program.

Uzbekistan's Experience

Over the past seven years, Uzbekistan has been among the countries that have made a "major leap" in developing the IT sector. Nearly ten presidential decrees

and government resolutions aimed at advancing this field have been adopted, including:

1. Resolution No. 17 of the Cabinet of Ministers of the Republic of Uzbekistan dated January 10, 2019, "On Measures to Establish a Technological Park of Software Products and Information Technologies" [1];
2. Presidential Decree No. PF-6079 dated October 5, 2020, approving the "Digital Uzbekistan – 2030" Strategy [2];
3. Presidential Resolution No. PQ-357 dated August 22, 2022, on advancing the ICT sector to a new stage in 2022–2023 [3];
4. Presidential Resolution No. PQ-162 dated May 24, 2023, on expanding coverage and improving the quality of digital services and digital transformation of sectors and regions [4];
5. Presidential Resolution No. PQ-178 dated May 15, 2024, on organizing "IT Towns" to create additional conditions for youth to study digital technologies and foreign languages [5];
6. Presidential Resolution No. PQ-358 dated October 14, 2024, approving the Strategy for the Development of Artificial Intelligence Technologies until 2030 [6];
7. Resolution No. 617 of the Cabinet of Ministers dated October 26, 2022, on expanding youth access to modern knowledge and professions [7].

RESULT AND DISCUSSION

As a result of these policies, the following achievements have been recorded in Uzbekistan:

1. On November 21, 2019, the "One Million Programmers" project was launched at Inha University in Tashkent. During the first phase, more than 2.5 million people (2,503,060) participated, over 1.17 million received certificates, and approximately 90% were secondary school students.
2. In the second phase, access to Coursera's online education resources was provided via the uzbekcoders.uz platform. Eight types of online courses were offered free of charge, and 10,000 professional licenses were purchased. The goal is to cover 1.2 million young people during 2023–2025.

Coursera hosts over 12,000 professional courses across eight fields from nearly 300 leading universities and companies worldwide (Google, Amazon, Meta, IBM, Stanford, Yale, etc.).

Five key areas related to IT education include Information Technology, Computer Science, Data Science, Foreign Languages, and Personal Development.

In 2025, 161,295 users registered on the uzbekcoders.uz platform; 93,050 studied free courses, while 300 completed professional courses and obtained

international IT certificates. The most demanded fields were programming, data science, computer literacy, graphic design, and foreign languages.

According to Coursera's Sixth Annual Global Skills Report, Uzbekistan ranked first globally in investing in skills needed for the labor market and holds the leading position in Central Asia by number of platform users.

3. To ensure education aligned with the latest IT standards, universities such as Amity University (2019), PDP University (2022), IT Park University (2022), and Cyber University (2025) were established. Together, they produce nearly 15,000 IT specialists annually [8].

By the end of 2022, plans were set to increase IT service exports to USD 1 billion, requiring at least 100,000 qualified specialists, improved internet infrastructure, favorable conditions for foreign IT companies, modern training systems, and the launch of at least 200 new e-services.

Between 2020 and 2022, IT Park residents doubled service volumes to 5 trillion UZS, exports increased to USD 140 million, and 370 of 715 government services were digitalized, serving 12 million citizens in 2022 [9]. Over 70 types of documents were eliminated from citizen requirements due to digitalization.

Under the "Uzbekistan–2030" Strategy, the country aims to become a regional IT hub, supported by improvements in governance digitalization, infrastructure, and IT education. From 2017 to 2025, the number of IT companies grew from 147 to 1,600, jobs exceeded 24,000, and exports are expected to surpass USD 300 million [10].

Digital Kazakhstan

Kazakhstan's organizational foundations for digital transformation include government resolutions adopted in 2016, 2021, 2023, and 2024, culminating in the 2024–2029 Artificial Intelligence Development Concept [11].

Since the early 2000s, Kazakhstan has paid significant attention to IT education. Annually, around 20,000 IT specialists graduate, though this remains insufficient to meet industry demand. President Kassym-Jomart Tokayev noted that global demand for IT specialists may reach 200 million by 2025 [12].

The national AI concept includes introducing AI fundamentals in secondary education, AI programs in higher education, and AI training for civil servants. Through the TechOrda program, over 82,000 IT specialists were trained between 2022 and 2024 [13].

Programs such as TechOrda, Tomorrow School, and TUMO aim to train 1 million people within five years. Reports indicate 16,500 IT vacancies during 2021–2022, with high demand for software developers, designers, network specialists, and system administrators [14].

Universities such as Al-Farabi Kazakh National University, Astana IT University, and Togliatti State University play key roles. Kazakhstan also hosted the ICPC World Finals in September 2024 and regularly organizes Digital Bridge and Digital Almaty forums.

Uzbekistan and Kazakhstan are leading partners in Central Asia's IT transformation, collaborating on education, startups, and IT exports. Joint initiatives such as Digital Bridge and ICT Week exemplify this cooperation [15].

Challenges and Opportunities in Digital Education

- Improving infrastructure and internet access, especially in remote regions;
- Modernizing higher and vocational education curricula;
- Aligning IT education with international standards;
- Expanding use of international platforms and certifications;
- Creating a unified Central Asian digital education ecosystem;
- Organizing regional "Digital Week" events;
- Establishing joint grants for programming and cybersecurity;
- Developing startup ecosystems and innovation;
- Expanding online and distance learning opportunities;
- Creating regionally recognized digital diplomas.

CONCLUSION

Central Asian countries are creating new opportunities for youth through the development of IT education. Modern infrastructure, government support, and international cooperation enable young people to build successful careers in digital technologies while accelerating the region's integration into the digital economy.

In particular:

- Uzbekistan and Kazakhstan strengthen their positions as regional digital education hubs;
- Digital literacy among youth increases in line with global standards;
- The number of IT specialists grows, expanding the qualified labor force;
- New jobs emerge within the digital economy;
- IT education becomes more affordable, fostering startups and investment-attractive projects;
- Regional integration into the global digital economy is reinforced through skilled young programmers.

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