

STATISTICAL ANALYSIS OF THE INTRODUCTION OF ARTIFICIAL
INTELLIGENCE TECHNOLOGIES IN UZBEKISTAN

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Annotation

This article analyzes the implementation of artificial intelligence technology in the Republic of Uzbekistan. Within the framework of our research, the application of artificial intelligence in the statistical analysis of government investments, programmers, economic sectors, medical fields, and international cooperation has been extensively covered. It is shown that artificial intelligence in Uzbekistan is at the formation stage, and the efforts being made for our country to enter the TOP-50 countries with developed AI by 2030 are demonstrated.

The article evaluates the impact of artificial intelligence on public administration, the economy, and human capital through indicators presented in graphs and tables, and discusses Uzbekistan's emergence as a leader in Central Asia.

Keywords

Artificial intelligence, Uzbekistan, AI, innovation, technology, digital economy, statistical analysis, Government AI Readiness Index, government services.

INTRODUCTION

Artificial intelligence is a technology that is encouraging the opening up of extremely broad opportunities for development and is rapidly penetrating every sector. This technology is diminishing the need for human capabilities in performing the functions of tasks, assisting with heavy labour, and, where necessary, reducing the requirement for human involvement. Through the programs integrated within artificial intelligence, it has been providing close support to people in correctly solving tasks, collecting new data, creating brand-new software, participating in conferences abroad, and achieving various high-level successes.

In this regard, the Republic of Uzbekistan has also adopted important conceptual documents concerning the development of artificial intelligence. However, a significant gap still remains between merely setting out these concepts on paper and actually implementing them in real life. Narrowing this gap is one of the main tasks facing Uzbekistan. By the end of 2030, Uzbekistan is striving to demonstrate its leadership in the field of artificial intelligence development. Even today, the artificial intelligence that every person turns to has firmly established itself as a key assistant in our daily lives.

Artificial intelligence is today the most widely used technology throughout our lives and one that is developing at a remarkably rapid pace around the world. In recent years, artificial intelligence has been constantly refined, with various new infrastructures being introduced year after year. Through its capabilities, artificial intelligence is assisting us in numerous tasks. For example, the easing of working methods and the clear increase in productivity in fields such as programming, economics, medicine, and almost every other sector serve as striking evidence of this. As a result, the number of entrepreneurs, companies, and business operators continues to grow steadily.

These changes make it crucially important not only to develop artificial intelligence technologies, but also to regulate them in a transparent, safe, and broadly inclusive manner that serves the needs of humanity. The emergence of this technology on Earth has played a major role in bringing about fundamental change and advancement in our present-day lives.

Here is the accurate British English translation of the provided Uzbek text:

Alongside the development of countries around the world, artificial intelligence is undoubtedly exerting its influence on Uzbekistan's progress and on opening up extensive opportunities for the country. The decisions adopted on the initiative of the President of the Republic of Uzbekistan serve as one of the main driving forces in building a modern life for the future of our nation and for the younger generation – this is no exaggeration.

On 14 October 2024, Presidential Decree No. PQ-358 “On Approval of the Strategy for the Development of Artificial Intelligence Technologies until 2030” was issued, approving the strategies for developing artificial intelligence technologies up to 2030. In line with this, measures are being taken to increase software and services based on artificial intelligence, to expand technical and technological infrastructure, and to enhance the scientific potential of young personnel.

Furthermore, Uzbekistan plans to become one of the world's leading countries in the development of artificial intelligence technologies by 2030. The President has proposed starting this initiative from primary school level. The reasoning is that the more familiar the younger generation becomes with these technologies, the greater their ability will be to discover new technologies in the future. This project encompasses not only schools but also universities. It is also planned to open specialisations promoting artificial intelligence.

Methods

Before adapting artificial intelligence to the Uzbek context, we must first thoroughly study our own mother tongue, our history, and our identity. Only then can we make maximum use of artificial intelligence for our own purposes.

In this way, if we examine how artificial intelligence functions in our social life:

1. Types of artificial intelligence. That is, the impact of digital assistants:

Artificial intelligence systems such as ChatGPT, Qwen Chat, DeepSeek, Gemini, Grok, Claude, Perplexity, NotebookLM, and other similar types have already firmly established their place in our lives by being able to perform a wide variety of tasks. These artificial intelligence tools listen to users' commands, understand them, and provide responses. As a result, the efficiency of many human tasks has begun to improve noticeably.

2. Its impact on our social networks: The applications we regularly use and have come to accept as ordinary – such as Facebook, Instagram, TikTok and the like – recommend other content to us based on the content we have viewed most frequently. The main purpose of this is to keep users on the platforms for as long as possible.

3. Its impact on online shopping: Online shopping applications operate in much the same way as social media platforms. In other words, they recommend similar products based on a user's purchase history.

4. Its impact on the world of gaming: In chess games, various racing games, and other complex games played by a large number of users, artificial intelligence participates as the opponent. Without doubt, artificial intelligence frequently wins these games. This is because it possesses the ability to analyse players' moves and strategies right through to the very end of the game.

5. The impact of artificial intelligence in medicine: It should be emphasised that many diagnostic procedures in medicine are now carried out with the support of technology. Today, as a result of the involvement of artificial intelligence, in addition to performing examinations on patients, it not only provides rapid and accurate analyses but is also capable of making diagnoses.

Results

Analysis of the stages of artificial intelligence development in Uzbekistan during 2021–2025:

2021 The year 2021 is regarded as the initial stage of artificial intelligence development in the Republic of Uzbekistan. At that time, Uzbekistan possessed only theoretical knowledge about artificial intelligence, while in practice very few projects had been developed. The number of personnel specialised in artificial intelligence was extremely limited. The development of artificial intelligence primarily began with the automation of nearly all processes in state services – that is, the transition to a digital system. The main focus was placed on establishing the legal framework and strategic planning.

2022 The year 2022 became a year of preparation for a new stage in Uzbekistan. During this period, digitisation was accelerated, although artificial intelligence was still viewed primarily as a “future technology”. The electronic government portal (my.gov.uz) was significantly expanded. AI assistants began to emerge. The first experimental projects were implemented in the tax and banking sectors.

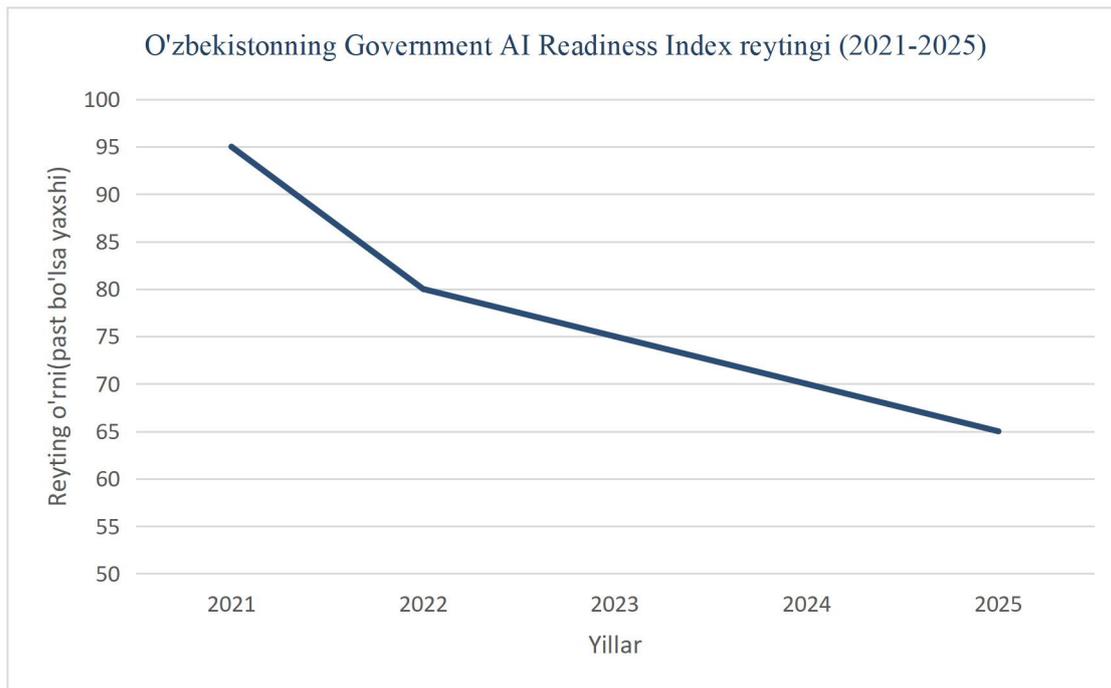
2023 In Uzbekistan, this stage was marked by a significant increase in interest in artificial intelligence, closely linked to the widespread popularisation of ChatGPT in people's everyday lives. Ordinary citizens also began actively using artificial intelligence, which started to bring them considerable convenience and simplification in various tasks. At this point, artificial intelligence ceased to be viewed merely as a “future technology” and instead became firmly established as a “technology of today”.

2024 This year represented a major turning point for the Republic of Uzbekistan. One of the most important events was the adoption, on 14 October 2024, of the “Strategy for the Development of Artificial Intelligence Technologies until 2030”. This document constitutes Uzbekistan's official artificial intelligence strategy. With the approval of the strategy, artificial intelligence transitioned from the phase of “development” to the phase of “practical implementation”.

Discussion

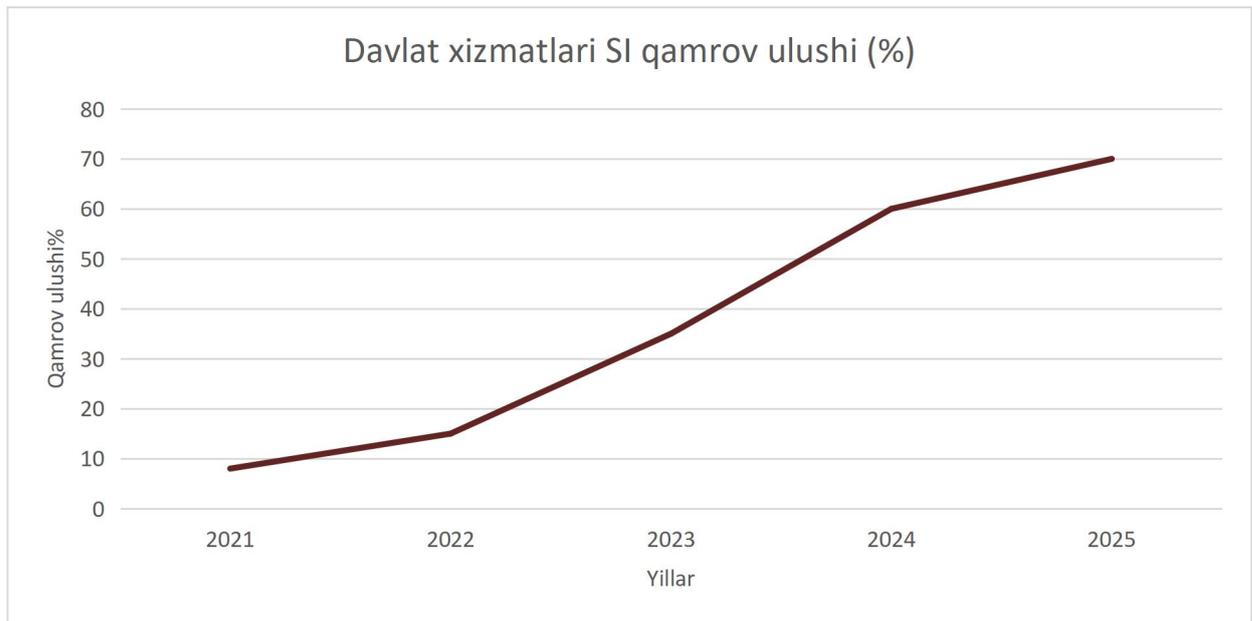
2025 At this stage, the focus shifted to the construction of artificial intelligence infrastructure and its practical implementation. The strategic decisions that had been adopted began to yield tangible results. Projects such as “One Million Artificial Intelligence Leaders” were launched and put into action. Uzbekistan has now taken the leading position in artificial intelligence development across Central Asia.

1. Government AI Readiness Index ranking position (2021–2025)



Note: According to data on Uzbekistan’s position in the Government AI Readiness Index ranking, the country has been successfully climbing higher positions year by year. It is already demonstrating clear leadership among the countries of Central Asia.

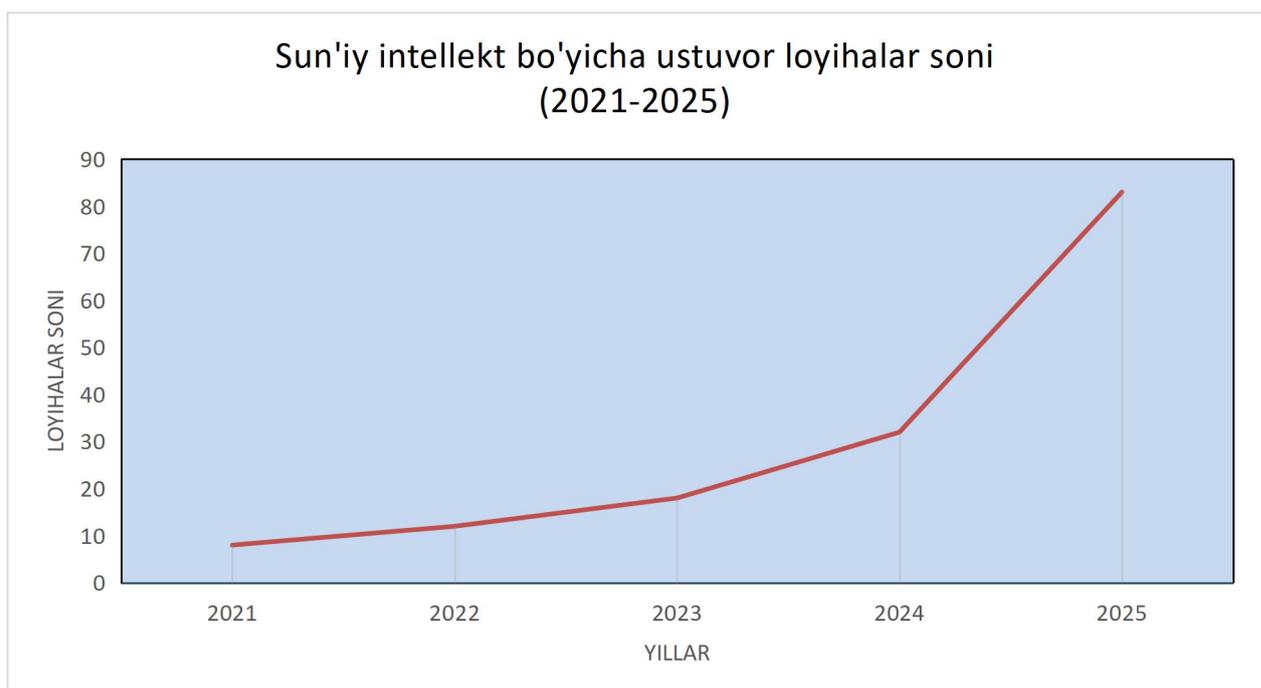
2. Share of AI coverage in public services (%) (Level of AI integration on my.gov.uz and other platforms)



Note: In public services, the coverage of artificial intelligence approximately doubled in 2023–2024 (due to the adoption of the strategy and the modernisation of my.gov.uz). Following the adoption of this strategy and the related digitisation decisions, the share of coverage stabilised in 2025 — this indicates that public services have genuinely transitioned to the use of artificial intelligence, i.e., to a fully digital way of life.

3. Number of priority projects in the field of AI (by state bodies and ministries)

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Note: The number of priority projects in the field of artificial intelligence remained very limited up to 2025. By 2025, however, these projects began to experience rapid growth. This demonstrates exponential growth: after 2024, the number of projects increased by 2–3 times.

Conclusion

In this research study, the development of artificial intelligence in the Republic of Uzbekistan has not only demonstrated high performance indicators in line with the global advancement of artificial intelligence technologies, but has also had a positive impact on people's daily lives. Over the past five years, Uzbekistan has achieved significant and noticeable successes in the development of artificial intelligence technologies. As mentioned earlier, Uzbekistan has managed to rise from 158th place to 70th place in the relevant rankings. This means that Uzbekistan now stands among the leaders in Central Asia – one of our highest achievements to date. In the future, the creation of such technologies and the discovery of new innovations will lead to conquering even higher positions in global rankings.

The present study has examined the processes of introducing artificial intelligence technologies in the Republic of Uzbekistan on the basis of statistical analysis, and has evaluated their impact on public administration, the economy, and human capital. The analyses show that the development of artificial intelligence (AI) in our country has evolved step by step over the period 2021–2025 in an evolutionary manner: the process, which initially focused on establishing the legal and institutional foundations, has now transitioned to the stage of practical implementation.

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In particular, the strategy approved by Presidential Decree No. PQ-358 of 14 October 2024 marked a fundamental turning point in the development of artificial intelligence. Through this strategy, the goal was set to position Uzbekistan among the top 50 countries in artificial intelligence development by 2030. Statistical indicators — including the significant rise in the Government AI Readiness Index ranking (from 158th to 70th place), the increase in AI coverage in public services, and the exponential growth in the number of priority projects — confirm the practical results of the policies being pursued in the country.

The research findings demonstrate that artificial intelligence:

- is increasing the efficiency of public services;
- is improving labour productivity in economic sectors;
- is expanding opportunities for rapid and accurate decision-making in medicine and finance;
- is contributing to the qualitative growth of human capital.

The modernisation of the electronic government system (my.gov.uz) and the expansion of digital infrastructure have been particularly important factors accelerating the integration of artificial intelligence. The near-doubling of AI coverage in public services between 2023 and 2025 stands out as a tangible outcome of digital transformation.

At the same time, the following priority tasks remain highly relevant in the process of developing artificial intelligence:

- training of qualified personnel and enhancement of scientific potential;
- creation of artificial intelligence models adapted to the national language and cultural context;
- strengthening the system of information security and data protection;
- expanding the participation of the private sector and developing the startup ecosystem.

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In general, it can be observed that the development of artificial intelligence in Uzbekistan has now transitioned from the theoretical stage to the stage of delivering practical results. Although the country has succeeded in securing leading positions in Central Asia, ensuring sustained growth in the context of global competition will require further improvement in strategic planning, statistical monitoring, and effective institutional governance.

In the future, by deeply integrating artificial intelligence into all sectors of the economy, supporting innovative projects, and expanding international cooperation, Uzbekistan will be able to strengthen its position in global rankings.

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