

# Priority Areas Of Using Artificial Intelligence Technologies In The Digital Economy

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**Abstract:** The article discusses the priorities of using artificial intelligence technologies in the context of digital transformation, the introduction of artificial intelligence technologies and their application, the possibilities of using digital information, issues of artificial intelligence technologies and their high quality.

**Key words:** digital economy, creative economy, digital transformation, artificial intelligence, e-government, innovative developments, innovative drivers, digital technologies, digital electronic platforms, ecosystems, quantum technologies; smart contracts.

In modern conditions of rapid scientific advancement and information-communication technology development, enhancing human capital through digital economy growth, creativity, entrepreneurship, and rationalization skills remains one of our era's most pressing challenges.

The introduction of new technologies and formation of a digital economy has become increasingly urgent. As digital transformations reshape modern reality, the emergence and implementation of new technologies continues to accelerate. Smart systems capable of operating effectively in a dynamically changing world are penetrating all areas of business and public life. The global drivers of innovation today are digitalization and advanced science. Analysis of the Global Innovation Index in recent years demonstrates that digitalization across all sectors and scientific development are essential for economic growth—effectively creating an "economic miracle." This transformation fundamentally depends on quality education.

This priority was formally endorsed by the President of the Republic of Uzbekistan in the Innovative Development Strategy of the Republic of Uzbekistan for 2022-2026, which includes provisions for creating new employment opportunities through industries requiring advanced intellectual knowledge. In 2020, President Shavkat Mirziyoyev approved the "Digital Uzbekistan - 2030" strategy by presidential decree. This strategy aims to accelerate the country's digital industry development and enhance national economic competitiveness, encompassing programs for digital transformation across regions and industries.

In 2024, a memorandum supporting the Digital Uzbekistan 2030 strategy was signed in Washington between the Ministry of Digital Technologies of Uzbekistan and the United States Agency for International Development (USAID). USAID will support the development of the country's information technology and communications sectors by engaging youth and women in IT, connecting technical education institutions, facilitating private sector growth, and participating in other IT initiatives. The strategy's implementation "road map" encompasses objectives in e-government, digital industry, digital education, and digital infrastructure development. This

marked USAID's first such assessment since implementing its initial Digital Strategy for 2020-2024.

Digital technologies are evolving exponentially, fundamentally transforming business dynamics by dematerializing, demonetizing, and democratizing every industry. These technologies facilitate the discovery of efficiency improvements and opportunities for sustainable competitive business development. Additionally, breakthrough innovations necessitate changes in existing management models, requiring reformed communications, technologies, and organizational structures based on new values, priorities, and guidelines centered on partnership, customer focus, innovation, and synergy. The Presidential Resolution "On measures for the widespread introduction of the digital economy and e-government," adopted on April 28, 2020, emphasizes: "the development of 'digital entrepreneurship' through software production and technological platform creation, with the goal of tripling service volume in this sector by 2023 and achieving \$100 million in exports."

The digital economy (knowledge economy) represents the formation of new business management models based on big data (BIG DATA) collection and exchange using ICT and the Internet, processing through digital technologies, and generating new patterns and knowledge to effectively meet population needs for essential benefits.

Intelligence (from Latin intellectus - sensation, perception, understanding, comprehension, concept, reason) refers to the mental capacity for adapting to new situations, learning from experience, understanding abstract concepts, and applying knowledge to environmental management.

Intelligence encompasses the general ability for cognition and problem-solving, unifying all human cognitive capabilities: sensation, perception, memory, representation, thinking, and imagination.

Artificial intelligence (AI) represents the science and technology of creating intelligent machines, particularly intelligent computer programs.

In the early 1980s, prominent computing theorists Barr and Feigenbaum proposed defining artificial intelligence as a computer science field focused on developing intelligent computer systems—systems possessing capabilities traditionally associated with human cognition, including language understanding, learning, reasoning, and problem-solving.

The International Telecommunication Union (ITU), collaborating with McKinsey Global Institute experts, modeled AI's economic impact while considering crucial factors such as global labor market transformation through automation, evolving employee skill requirements, and organizational implementation.

The primary factors influencing AI's global economic impact include:

- Enhanced production capabilities
- Replacement of existing products and services
- Innovation and product/service line expansion
- Economic benefits from increased global flows
- Value creation and reinvestment
- AI transition and implementation costs
- Negative externalities

According to National Research University Higher School of Economics experts, the artificial intelligence market will expand 150-fold by 2025 compared to 2019, reaching \$59.7 billion. AI projections indicate that by 2024, 20% of non-routine task workers

will rely on AI assistance; by 2025, AI will manage 85% of customer interactions; and by 2030, global GDP will increase by \$15.7 trillion.

A 2022 International Chamber of Commerce (ICC) Banking Commission Report, based on banking industry representative surveys and key public and private sector stakeholder input, outlined digital priorities for merchant banking participation and export-import operations. The report revealed that AI sources finance 80% of international trade. Traditional trade finance, currently representing approximately 10% of transactions, is expected to show minimal growth. Supply chain finance digitalization is projected to accelerate, primarily through factoring. Paper documentation is expected to be virtually eliminated, reducing transaction processing time by at least two hours and compliance procedure costs by up to 30%. World Trade Organization (WTO) agreements on international trade procedure facilitation, digital banking connectivity, and cloud interface integration are driving digital transformation in import-export customs clearance.

Maintaining domestic privacy standards primarily affects cross-border personal data transfer volumes, potentially impacting AI algorithm development. The European Union's General Data Protection Regulation (GDPR) prohibits data transfer to countries deemed legally unreliable by the European Commission. Additionally, personal data usage is restricted to its collection purpose and cannot be used for AI neural network deep learning to improve service delivery efficiency.

Developing robust information confidentiality protection measures requires extensive personal data access for AI program training and study. The key challenge involves creating privacy rules that maintain AI access to big data without excessive restrictions. Expanded AI adoption depends on digital technology development for unrestricted cross-border data flow, cloud computing advancement, BIG DATA generation and processing capabilities, and Internet of Things evolution.

Uzbekistan has prioritized information-communication technology and digital economy development to achieve leading innovative development status by 2030. The country is currently implementing various initiatives to expand artificial intelligence technology utilization, improve digital data management systems, and support scientific projects through qualified personnel training.

Scientific and technological research and innovation support in artificial intelligence amounts to \$15.1 billion, with nine projects being implemented during 2021-2024.

The widespread adoption of new technologies in Uzbekistan, including artificial intelligence in social protection programs and other sectors, promotes modern information technology utilization in public and private sectors, enhancing digital economy development opportunities and innovation implementation across all domains.

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