Research on the impact of artificial intelligence technology on national high-quality development and innovation drive

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Abstract: By analyzing the role of artificial intelligence technology in economic development, social development, scientific and technological innovation, and enhancing national competitiveness, this paper discusses how artificial intelligence technology promotes national high-quality development and innovation-driven development.

Keywords: Artificial intelligence technology; High quality development; Innovation driven

1. Introduction

Artificial intelligence is a new technical science based on computer science, which is integrated by computer, psychology, philosophy and other disciplines. In the new round of scientific and technological revolution, artificial intelligence technology has demonstrated the "head goose effect", leading the convergence of scientific and technological revolution, educational revolution and industrial revolution, from military, financial, medical, factory manufacturing to People's Daily life, and has a significant impact on the modern social governance concept and governance ability. If China wants to move from a manufacturing power to an intelligent manufacturing power, it cannot do without artificial intelligence technology. The application scenarios of artificial intelligence are changing with each passing day, and new technologies and theories are emerging endlessly, which has had a profound impact on the country's high-quality development and innovation-driven development.

2. The impact of artificial intelligence technology on the country's high-quality development and innovation drive

Artificial intelligence technology can not only promote economic development, accelerate industrial upgrading, and promote social progress, but also enhance national competitiveness and promote the modernization of national governance.

2.1 The impact of artificial intelligence technology on economic development

Artificial intelligence technology plays a huge role in improving the level of economic development of our country . The application of artificial intelligence technology can bring about the improvement of production efficiency and the reduction of costs, which is of great significance for promoting economic development.

(1)Improve production efficiency: Artificial intelligence technology improves production efficiency by optimizing the production process, improving the level of production automation, and realizing intelligent manufacturing. Artificial intelligence technology through machine learning, deep learning and other technologies, intelligent analysis of production data, find bottlenecks and problems in the production process, give corresponding solutions, so as to improve production efficiency. In addition, artificial intelligence technology can also reduce labor costs and time costs and improve production efficiency through automated production and intelligent management.

(2)Creating new jobs, new industries: AI is creating new jobs and new industries in multiple fields. In the field of intelligent robots: Intelligent robots can replace humans to complete many repetitive and tedious tasks, such as manufacturing, logistics and other fields, thus creating new jobs and industries. In the field of intelligent healthcare: Artificial intelligence technology plays an important role in medical diagnosis, disease prediction, drug research and development, etc. , thus creating new jobs and industries, such as medical data analysts, drug discovery scientists, etc. In the field of intelligent education: Artificial intelligence technology improves the quality of education through personalized teaching and intelligent tutoring, thereby creating new occupations and industries, such as online education platform developers and intelligent tutoring teachers. In the field of intelligent agriculture: Artificial intelligence technology improves production efficiency in agricultural planting and breeding , thereby creating new occupations and industries, such as agricultural robot engineers and intelligent breeding managers.

2.2 The impact of artificial intelligence technology on social development

The application of artificial intelligence technology can bring about the increase of social welfare, the improvement of social equity, and the increase of employment opportunities, which is of great significance for promoting social development.

(1) Change the way of work: Artificial intelligence technology can change the way of work in the following ways: ① Automation: Artificial intelligence technology can automate some repetitive and tedious work, so as to improve work efficiency. ② Intelligent: Artificial

intelligence technology can make work more intelligent through machine learning, natural language processing and other technologies, so as to improve work efficiency. ③ Personalization: Artificial intelligence technology can provide personalized services according to individual characteristics and needs, thereby improving job satisfaction.

(2) Change the social structure: Artificial intelligence technology can change the social structure in a variety of ways: ① change the way of work: Artificial intelligence technology can make the way of work more efficient, flexible and free. People can work from home or remotely, changing the way work is done and organized. ② Change the industrial structure: The development of artificial intelligence technology will lead to changes in some traditional industries, but also produce some new industries and job opportunities, thereby changing the industrial structure. ③ Change urban planning: Artificial intelligence technology can change urban planning and construction methods, such as intelligent transportation, intelligent buildings and smart cities, so as to improve the quality of life and environmental quality of the city. ④ Change the way of education: Artificial intelligence technology can change the way of education, such as intelligent education, intelligent learning, etc., so as to better meet people's learning needs. The development of artificial intelligence technology will have a profound impact on the social structure, thus promoting the progress and development of society.

2.3 The impact of artificial intelligence technology on innovation drive

(1) AI technology can improve the quality and efficiency of national innovation drive

Through the analysis and processing of data, artificial intelligence technology provides more accurate and timely information for decision-making, thus helping the country to better formulate and implement innovation-driven development strategies. ① Promote industrial upgrading: Artificial intelligence technology can be applied to various industries such as manufacturing, medical care, finance, and retail to improve production efficiency and product quality, and promote industrial upgrading and economic development. ② Promote innovation: Artificial intelligence technology can promote innovation and improve the country's innovation capacity. Artificial intelligence technology can be applied to scientific research, product design, marketing and other aspects to help people better understand and predict market demand and promote the development of innovation. ③ Improve the efficiency of public services: Artificial intelligence technology can be applied to the field of public services to improve the efficiency of public services. For example, AI technology can be applied to various fields such as transportation, medical care and education to improve the quality and efficiency of public services.

(2) Artificial intelligence technology can promote national innovation-driven industrial upgrading and transformation

Artificial intelligence technology provides more accurate and efficient services for the industry through the analysis and processing of data, so as to promote the upgrading and transformation of the industry. ① Intelligent manufacturing: through integration, digitalization, intelligence and other technologies, to achieve the automation and intelligence of the manufacturing process, so as to improve production efficiency, reduce production costs, and improve product quality. In the manufacturing industry, artificial intelligence technology can be applied to robots, automated production lines, sensors, intelligent control systems, etc., to realize the automation and intelligence of the manufacturing process, improve production efficiency, reduce production costs, and improve product quality . ② Intelligent medical care: Intelligent management of medical business through artificial intelligence technology, including disease diagnosis, treatment recommendations, drug research and development, etc., so as to improve the efficiency and accuracy of medical business. In the medical industry, artificial intelligence technology can be applied to disease diagnosis, treatment recommendations, drug research and development, etc., to improve the efficiency and accuracy of medical business. ③ Smart agriculture: intelligent management of agricultural production through artificial intelligence technology, including intelligent planting, intelligent farming, intelligent monitoring, etc., so as to improve agricultural production efficiency and improve the quality of agricultural products. In agriculture, artificial intelligence technology can be applied to intelligent planting, intelligent breeding, intelligent monitoring and other aspects to improve agricultural production efficiency and improve the quality of agricultural products.

2.4 Artificial intelligence technology can accelerate scientific and technological innovation

The use of machine learning and other technologies can realize the automation and intelligence of scientific research, improve the efficiency of scientific research, and accelerate scientific and technological innovation. ① Assisted innovation: AI technology can assist scientists and engineers in research and design, helping them find new solutions faster. For example, through natural language processing and machine learning technologies, scientists can process and analyze large amounts of data faster, leading to new discoveries and breakthroughs faster. ② Automated experiments: Artificial intelligence technology to automate the experimental process, through machine learning and deep learning technology, scientists can train computers to conduct experiments, and quickly obtain results and data, thereby accelerating the process of scientific research. ③ Optimization algorithm: Through reinforcement learning and deep learning technology, scientists can train computers to optimize the optimization algorithm, so as to find the best solution faster, thereby improving research efficiency.

3.Conclusion

Artificial intelligence technology can promote the rapid development of China's economy, and promote social development by creating job opportunities, changing the way of working, and changing the social structure; Through data analysis and processing, it provides more accurate and timely information for decision-making, provides more accurate and efficient services for the industry, improves innovation efficiency and promotes international cooperation by integrating innovation resources on a global scale; The use of machine learning and other technologies to assist innovation, automated experiments, algorithm optimization, etc. to accelerate scientific and technological innovation; In short, artificial intelligence technology plays an important role in promoting the country's high-quality development and innovation drive.

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Fund Project: Scientific Research Fund Project of Yunnan Open University, Yunnan Vocational and Technical College of National Defense Industry (23YNOUZ44, Research on the impact of Artificial Intelligence Technology on National High-quality Development and Innovation Drive)