Article

Vision of Industrial Innovation Guided by Artificial Intelligence

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Abstract: This article proposes that only by prioritizing the formulation of data rights protection and circulation rules that adapt to the development characteristics of the artificial intelligence industry, can the compliance costs of enterprises be reduced, and ultimately, high-quality datasets can be developed and utilized to promote innovation in the artificial intelligence industry and to form a new engine for social progress in the 21st century. The action research includes supporting the development of public clouds, orderly guiding departments, units, and individuals to purchase public cloud computing resources and services, and avoiding duplicate construction of intelligent computing centers. The research project emphasizes the need to guide and support enterprises to increase cloud computing, computing power leasing, algorithm valuation, and arithmetic purchasing through social forces, reduce the cost pressure of user research and application development, deepen industrial integration, and expand application scenarios. This article proposes that data elements should not be limited to addition empowerment, but should focus on multiplier mechanisms. Firstly, we need to accelerate the expansion of artificial intelligence big data open innovation platforms, while encouraging enterprises and research institutions to share high-quality corpus resources. We also need to support professional data annotation and cleaning preprocessing work, ultimately opening up a high-quality data source for building big models.

Keywords: artificial intelligence expansion; industry innovation; social progress

1.Background Review

In today's digital economy era, algorithms, computing power, and arithmetic have become the three new elements of productivity. Fully leveraging the role of these three elements can inject new momentum into the digital transformation of industries. Algorithm innovation has promoted the application of artificial intelligence technology in image recognition, speech recognition, natural language processing, and other fields, bringing convenience and efficiency to various industries.

The development of computing power provides powerful computing support for artificial intelligence applications, enabling efficient completion of tasks such as big data processing and deep learning. And arithmetic has become a bridge connecting artificial intelligence and the real world, making artificial intelligence technology more targeted and practical in practical applications. Focusing on artificial intelligence to create new productive forces is the spirit of the times and a major development opportunity.

Artificial intelligence is conducive to developing industrial development highlands and promoting deep innovation in industries, accelerating the improvement of new quality productivity. In recent years, "new quality productivity" has become a hot topic. The iteration of traditional industries, the competition of emerging industries, and the leadership of future industries have opened up a development race driven by innovation, gathering the potential for high-quality development. Artificial intelligence has become a top priority.

Artificial intelligence is becoming a powerful driving force, driving the leap of new quality productivity. It is not only a reflection of the spirit of the times, but also a significant development opportunity to promote social development. The rise of artificial intelligence is influencing and enhancing new quality productivity in an unprecedented way, opening up a new era of industrial development.

As an innovation engine, artificial intelligence plays an irreplaceable role. It not only promotes the iteration of traditional industries, but also helps the rapid growth of emerging industries, and plays a leading role in the development of future industries.

Artificial intelligence leads the development of future industries, and the technological progress it brings is comprehensive. From autonomous vehicle to smart home, from medical diagnosis to intelligent manufacturing, the application of artificial intelligence is changing our way of life and working mode. It continuously optimizes itself and achieves self transcendence through deep learning and machine learning, thereby driving the upgrading and transformation of the entire industry chain.

In emerging industries, top-level design, computing power, and data are the three key factors. The top-level design ensures that the development direction of artificial intelligence aligns with national strategies, providing a clear roadmap for the rapid development of the industry. The improvement of computing power provides a solid foundation for the application of artificial intelligence, making complex calculations possible. Data, on the other hand, is the "food" of artificial intelligence, and its accumulation in quantity and improvement in quality directly affect the effectiveness of artificial intelligence.

It can be seen that in the process of deep innovation in the industry, the application of artificial intelligence is crucial. It can penetrate every corner of the industry, improve efficiency, optimize processes, and create value. The exponential technological progress it brings not only standardizes and improves the quality of products and services, but also comprehensively and rapidly enhances the quality of human development.

2.Question raising

Artificial intelligence generation has opened up cluster innovation, and artificial intelligence models have brought exponential technological improvements in quality. In the development process of the artificial intelligence industry, top-level design, computing power, and data cannot be ignored, becoming the driving force behind the blue ocean of the artificial intelligence industry.

Artificial intelligence is a key factor in enhancing new productivity. It not only promotes deep innovation in the industry, but also depicts a grand blueprint for future industrial development. Under the leadership of artificial intelligence, new industrial highlands are forming and new development opportunities are emerging. And all of this stems from the enormous driving force of artificial intelligence on new productive forces. It can be foreseen that new productive forces will be further released, driving society into a new stage of development.

In the above process, to further deepen the application of artificial intelligence, optimize industrial structure, and improve industrial efficiency, it is necessary to focus on:

(1)How artificial intelligence emerges as the spirit of the times and a major development opportunity, and affects the improvement of new quality productivity.

(2)The role of artificial intelligence in innovation engines, as well as its role in industry iteration and deep innovation.

(3)How artificial intelligence leads future industrial development and brings about exponential technological progress.

(4)The role of top-level design, computing power, and data in emerging industries, and how they become the driving force for the development of the artificial intelligence industry blue ocean.

Only in this way can we truly seize this major development opportunity, and enable the new quality productivity led by artificial intelligence to provide sustained support for our social development.

3. Action research

Adhering to the spirit of the times, it is necessary to increase support for the artificial intelligence industry and promote greater breakthroughs in productivity, work efficiency, and application scenarios. Driven by the new productive forces of algorithms, computing power, and arithmetic, the artificial intelligence industry will achieve higher quality, efficiency, fairness, and sustainability, contributing research wisdom and strength to the global digital economy era.

At the operational level, it is necessary to cultivate a friendly software and hardware ecosystem. Only by establishing a good standard system and organizing joint research and development can we achieve deep integration and wide compatibility of software and hardware products. Only by encouraging technological research and development cooperation and market resource sharing among different manufacturers can it be possible to avoid duplicate investment, create a complete artificial intelligence industry chain, improve the innovative product certification system, and drive technological progress with market demand.

Specifically, in order to promote the development of artificial intelligence and cultivate a friendly software and hardware ecosystem, only by achieving deep integration and wide compatibility can their maximum value be demonstrated. In the process of establishing an ecosystem, the research team has conducted research and developed a standard system plan, and also proposed a plan for organizing joint research and development. By collaborating with experts from different fields and manufacturers in technology research and development, we can overcome challenges together, avoid duplicate investment, improve efficiency, promote knowledge exchange, and create a win-win mechanism.

In terms of market resource sharing, the research group of this article has also broken traditional competitive thinking and encouraged market resource sharing among manufacturers. This sharing not only avoids resource waste, but also expands market influence and promotes the implementation of artificial intelligence achievements.

This article empirically demonstrates the necessity of building a complete artificial intelligence industry chain through action research. The industrial chain enables industrial innovation supported by artificial intelligence, from hardware production, to software development, and then to application promotion, each link is closely connected and mutually reinforcing, which not only meets market demand but also promotes technological progress.

On the basis of the industrial chain, action research has also proposed the concept of establishing a sound certification system for innovative products. This system can help consumers identify high-quality products and motivate manufacturers to increase investment in research and development, promoting industry progress.

Action research fully demonstrates the value of artificial intelligence in promoting social progress, and the establishment of a friendly software and hardware ecosystem brings many conveniences beyond imagination.

4. Research conclusion

Based on the spirit of the times, artificial intelligence will prioritize supporting several competitive regions and industries. This article concludes that providing specialized support and establishing specialized funds may accelerate significant progress in core technology research and development, infrastructure investment, model training and optimization, and vertical field applications in the field of artificial intelligence, including:

Artificial intelligence prioritizes supporting competitive regions and industries, and through specialized support and the establishment of special funds, helps to make significant progress in core technology research and development, infrastructure investment, model

training and optimization, and vertical field applications in the field of artificial intelligence.

The development of the artificial intelligence industry will focus on improving productivity, work efficiency, and expanding application scenarios. In the tide of the digital economy, algorithms, computing power, and arithmetic have become the three new elements of productivity, injecting new momentum into the digital transformation of industries.

The technological revolution centered around artificial intelligence is becoming a backbone driving the development of the artificial intelligence industry. With the joint efforts of enterprises and regions, the artificial intelligence industry will show a rapid development trend, injecting new vitality into economic development.

Increase investment in artificial intelligence infrastructure, with a focus on developing basic technologies such as big data, cloud computing, and the Internet of Things, which will provide strong support for the development of the artificial intelligence industry. Step by step, promote the deep integration of artificial intelligence and the real economy, cultivate new business models, and even promote industrial transformation and upgrading.

By utilizing massive data resources and utilizing technologies such as deep learning and reinforcement learning, the intelligence level of artificial intelligence models can be continuously improved. In terms of model training and optimization, standardization and openness of artificial intelligence models can promote interoperability and collaborative innovation between different models.

From intelligent manufacturing, intelligent healthcare, intelligent transportation to intelligent finance, intelligent education, and other fields, artificial intelligence technology will continue to make breakthroughs in vertical applications, bringing profound changes to various industries. It can also promote the harmonious development of social affairs and improve the level of social governance.

In the future, the development of the artificial intelligence industry will focus on areas such as productivity, work efficiency, and application scenarios. In today's digital economy era, algorithms, computing power, and arithmetic are all new productive forces that can inject new momentum into the digital transformation of industries.

Conflict of interest: The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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