

Research on the Impact of the Intelligent Sports Age on the Design and Research Ability of Computer Majors

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Abstract

Artificial intelligence is an important driving force leading a new round of scientific and technological revolution and industrial change. It promotes human society to usher in an intelligent era of human-machine collaboration, cross-border integration, and co-creation and sharing. Intelligent sports is the application of intelligent scientific information technology in sports, and it is a blue ocean that spans multiple industrial fields and contains a trillion market scale. This article analyzes the latest trends in the evolution of artificial intelligence in China, the deep integration of artificial intelligence and education, and sports to analyze the impact of intelligent sports on the design and research and development capabilities of computer majors, so as to provide ideas for the design and research and development of computer majors.

Keywords

Intelligent sports, computer science, design and development.

1. Introduction

Artificial Intelligence (AI) is a research, development, theory, method, technology, and application system for simulating, extending, and expanding human intelligence. Artificial intelligence brings humans into the era of coexistence of human and artificial intelligence. Artificial intelligence is an excellent opportunity to accelerate the achievement of sustainable development goals. Human beings are rapidly embracing and increasingly approaching the era of intelligence. The new generation of artificial intelligence is booming globally and has profoundly changed people's production and lifestyle. The 5G-scale commercialization currently underway will become another new driving force for the rapid development of artificial intelligence.

2. Latest trends in the evolution of artificial intelligence in China

On May 16, 2019, the International Conference on Artificial Intelligence and Education was held in Beijing. The theme of this conference was "Planning Education in the Age of Artificial Intelligence: Leading and Leapfrogging" to discuss and analyze the impact of new technology development on future education, especially artificial intelligence. The opportunities and challenges brought by technology to education, explore the major issues such as the direction, concept and countermeasures of education development in the era of artificial intelligence. About 500 delegates from more than 100 countries and more than 10 international organizations discussed the development plan of the education in the intelligent era, reviewed and adopted the outcome document "Beijing Consensus on Artificial Intelligence and Education", and formed a common vision for the development of education in the intelligent era in the international community. The "Beijing Consensus" is published in 6 official languages of the United Nations with a total of 44 articles, ranging from education policy planning, education management and supply, teaching teachers, learning evaluation, values and skills,

lifelong learning for all, fair and inclusive applications, and gender equality in the intelligent era. , Ethics, monitoring and evaluation and research, and financing and international cooperation. General Secretary Xi Jinping pointed out in the congratulatory letter of this meeting that artificial intelligence is an important driving force leading a new round of scientific and technological revolution and industrial change. It is profoundly changing the way people produce, live and learn, and promote human-machine collaboration in human society. , Cross-border integration, and create a smart age of sharing. It is an important mission of education to grasp the development trend of global artificial intelligence, identify breakthroughs and main directions, and cultivate a large number of high-end artificial intelligence talents with innovative ability and cooperative spirit.

3. Integration of Artificial Intelligence and Education: Enabling People's All-round Development with Educational "Smart Change"

In 2017, the Chinese government issued the "New Generation Artificial Intelligence Development Plan"; in 2018, the Ministry of Education released the "Action Plan for Artificial Intelligence Innovation in Colleges and Universities", focusing on promoting the implementation of artificial intelligence development in the field of higher education; in February 2019, " The release of China Education Modernization 2035 proposes to accelerate the educational reform in the information age, build an intelligent campus, coordinate the construction of an integrated intelligent teaching, management, and service platform, and accelerate the reform of the talent training model. In April 2018, the Ministry of Education also formulated the "Action Plan for Artificial Intelligence Innovation in Colleges and Universities", which pointed out that in the face of opportunities for the development of new generations of artificial intelligence, institutions of higher learning should improve the talent training system in the field of artificial intelligence and support the establishment of computer science and technology disciplines The direction of artificial intelligence disciplines, to promote the construction of first-level disciplines in the field of artificial intelligence. In March 2019, the Ministry of Education approved the establishment of artificial intelligence programs in 35 universities.

The integration of artificial intelligence and education systems, comprehensive innovation of education, teaching and learning methods, and the use of artificial intelligence to accelerate the construction of an open and flexible education system, so as to promote the sustainable development goals and the realization of the community of human destiny. At the International Conference on Artificial Intelligence and Education, Minister of Education Chen Baosheng pointed out that we should steadily take the road to the development of intelligent education in the future. The first is the road to popularization. The popularization of artificial intelligence knowledge should be the premise and basis for students to have basic consciousness, concepts, literacy, and interest in artificial intelligence, to train teachers' ability to implement intelligent education, and to improve the artificial intelligence literacy of the entire population. The second is the road to integration. It is necessary to establish a docking and dialogue mechanism between education and artificial intelligence industry, and provide more and better infrastructure for artificial intelligence education. The third is the road to change. It is necessary to play a good role and make good use of artificial intelligence technology in promoting school education and teaching reform, promoting school governance reform, and promoting lifelong online learning. The fourth is the road to innovation. It is necessary to carry out in-depth research on the application strategy of intelligent education, and to explore the development strategies, standards, and promotion paths of intelligent education.

The development of China's education in the intelligent era will present several new features: educational reform and innovation will inject new momentum for human-machine

collaboration, co-creation and sharing; educational scientific research will enter a new stage of cross-integration and intelligent innovation; educational development goals will focus New standards of fairness and quality; education governance system will face new challenges of social ethics and data security. The deep integration of artificial intelligence and education has triggered a series of changes and innovations in education needs, methods, content, evaluation, education governance and the teaching staff. Education is the core element of artificial intelligence, and new possibilities brought by artificial intelligence technology to promote education equity and improve education quality. With the promotion and empowerment of artificial intelligence, education will pay more attention to human development, and the learning paradigm will undergo profound changes. With the continuous breakthrough of deep learning technology, artificial intelligence may surpass humans in terms of knowledge reserve and application of skills. Artificial intelligence can not only analyze students' knowledge mastery, push learning suggestions and learning strategies from the level of knowledge associations and group hierarchies, but also provide students with personalized and customized learning content in terms of learners' thinking methods and individual learning characteristics. And methods etc. Big data and artificial intelligence technology make the evaluation of education and teaching easier.

4. Deep integration of Artificial Intelligence and Sports-Smart Sports

Intelligent sports is the application of intelligent scientific information technology in sports. It is based on information science and technology, takes the sports industry as a carrier, and uses sports, national fitness, and the sports industry as the basic framework. It integrates education, medical care, tourism, A highly connected ecosystem in the "sports +" industry, such as culture and finance, with data, network, intelligence, mass, and entertainment characteristics. The intelligent sports industry brings together the Internet of Things, cloud computing, big data, fitness entertainment, competition performances, event operations, intermediaries, sports training, media, sports equipment, sports goods, smart hardware, big health, stadium operations, sports tourism, insurance Etc. is an emerging industry that is highly related to the secondary and tertiary industries, ecological and composite. Smart sports is a blue ocean that spans multiple industries and contains a trillion-dollar market size. The development of intelligent sports is of great significance. It is the path to resolve the main contradictions in society, it can meet people's longing for fitness and various needs, it is an important condition for implementing the national fitness plan, a healthy China strategy, and a carrier for building sports and leisure complexes. Promote the deep integration of the Internet, artificial intelligence and entities, which is conducive to the integration of sports industry resources and cross-border integration, and promote the supply-side reform of the sports industry.

The application of artificial intelligence technology in the sports industry gains new application inspiration and innovative ideas, research results on artificial intelligence technologies such as smart sports products, smart stadiums, and smart towns. Smart sports products: Mainly artificial intelligence technology is applied to sports equipment and fitness equipment, such as wearable devices, including smart watches, sports trackers, helmet displays, smart clothing, smart accessories and other products, through hardware devices and corresponding APP applications. Widely used in teaching, scientific research, public fitness and other fields. Intelligent stadiums: such as gym fitness platforms, sports equipment, lighting, sound control, access control, monitoring, ticketing, venue booking and other fields. Especially the intelligent sports park, which has just started in China, its planning and design includes various fitness equipment products such as various intelligent paths, intelligent multi-functional sports venues, intelligent fitness trails, reservation systems, passenger flow monitoring systems, sports APP and other software systems. Combined use, it forms a smart sports park, covering children's

play area, youth strength training area, elderly leisure area, intelligent landscape path area, intelligent fitness station area, intelligent management room, intelligent fitness cabin and other fitness areas, which fully meet different needs. The fitness needs of the group truly cover the entire population, realize equipment intelligence, service intelligence, management intelligence, and use energy-saving and environmentally-friendly materials for construction, and fully integrate with the park environment to create a new smart fitness experience for the whole people.

5. Impact of Intelligent Sports on Design and Research Ability of Computer Majors

5.1. Smart Sports Offers Opportunities for Computer Students

The design and development of intelligent sports requires a large number of talents. Computer students have a research foundation in computer science related to artificial intelligence and have a broad employment prospect. They can engage in the design, development, application, maintenance, Management and other work can also continue to study in artificial intelligence related or interdisciplinary. The combination of knowledge in the fields of intelligent sports and computer specialty will make the employment of students broader. Talent training is the need of enterprises in short supply of talents. At present, the domestic artificial intelligence field is in short supply, and the demand for talent has exploded. Especially in the design and development of intelligent sports, there is a large demand for talents, high wages and a large gap.

5.2. Cultivate the Cross-Border Integration Ability of Computer Students

In the era of intelligent sports, skilled personnel will be divided into technology creators, users and collaborators. For the creators of technology, to have computational thinking and digital capabilities, they need to have interdisciplinary capabilities in digital disciplines, technical sciences and natural sciences, and humanities; for users of technology, they need information technology, data analysis and processing, and content. In terms of development and use of information technology, it is necessary to use information technology to solve various problems. Therefore, in the training of computer majors, we must pay close attention to the cultivation of students' innovative abilities, critical thinking abilities, cross-border abilities, and cooperation abilities, and implement inquiry and mixed classroom teaching reforms.

5.3. The Integration of Science and Education and the Integration of Production and Education Must Be Taken as the Only Way.

At present, many companies dedicated to intelligent sports research and development hold a large amount of data, and many innovations originate from enterprises. In some aspects, enterprises have better reserves, innovation and strength than universities. Relying on the computer specialty, give play to the advantages of enterprises familiar with industry development and cutting-edge technology, and the goal is to train high-quality technical talents that adapt to the development trend of the intelligent sports industry. The purpose of integrating enterprises into the training of talents is to solve two problems: one is to enable students to master and use the current mainstream technology of the intelligent sports industry; the other is to bridge the gap between the ability of higher education training and the ability required for practical work. This gap is manifested in the general lack of computer students' ability to solve practical problems, learn independently in project participation, and communicate and collaborate. The computer major should cooperate with scientific research institutes, intelligent sports development enterprises and other social institutions to integrate science and education, industry-education integration, school-enterprise cooperation, and

jointly participate in the training of intelligent sports design and research and development talents.

6. Summary

Through the development of "Internet + Sports" informatization over the years, the intelligent sports industry has become richer and more diverse in learning methods and means. Through a more intelligent learning environment and education system, computer major students are gradually getting rid of simple, repetitive learning. Alas, immersed in more in-depth learning and stimulated higher-order thinking ability, so as to enter a more advanced stage of ability development, you can obtain more flexible, customized and most appropriate in professional learning, social development and self-growth. Education is truly organic. In the future, smart sports will rely on more accurate and intelligent data analysis, not only to meet the needs of human personality development, but also to create a person's adaptive development, so that all people's personality can be fully and fully grown. Colleges and universities should combine their own characteristics, give play to their computer expertise, speed up the construction of artificial intelligence and artificial intelligence colleges, and train professionals who can design, code, and develop artificial intelligence systems with innovation and creativity, so as to strengthen the pool of intelligent talents and increase international competition. force.

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