Innovative Mode of Talent Training Driven by AIGC Technology

Jie Feng

Liaoning Communication University, Shenyang, 110136, Liaoning, China

871009293@qq.com

Keywords: AIGC technology; Talent training mode; Personalized learning; Intelligent assistant teaching

Abstract: The purpose of this study is to explore how AIGC technology affects and promotes the innovation of talent training mode. Through the comprehensive use of literature review, empirical investigation and data analysis, this study deeply analyzes the core characteristics of AIGC technology and its application in talent training. The experimental results show that AIGC technology can significantly promote the design of personalized learning path, the application of intelligent assisted instruction system, and the effective combination of online learning and virtual practice, thus enhancing students' learning effect and interest. This study not only provides guidance for educational institutions on how to effectively use AIGC technology to improve teaching methods, but also provides decision support for policy makers to promote the overall progress of the education industry. Based on the experimental results, this paper also puts forward a series of policy suggestions and practical guidance to promote the wider application of AIGC technology in the field of education. Finally, this paper points out the limitations of the research and looks forward to the future research direction.

1. Introduction

With the rapid development of science and technology, AIGC (Artificial Intelligence, Graphics, and Computing) technology has increasingly become an important force leading the digital transformation [1]. AIGC technology combines artificial intelligence, graphic processing and computing technology, which has brought great changes to all walks of life [2]. In the field of personnel training, AIGC technology also shows its far-reaching influence [3]. The traditional educational model is being gradually broken and replaced by more intelligent and personalized teaching methods and tools [4]. Therefore, it is particularly important to deeply understand how AIGC technology affects and promotes the innovation of talent training mode [5].

Studying the innovative mode of personnel training driven by AIGC technology will not only help educational institutions to better adapt to the educational needs of the digital age, but also provide educators and learners with a more efficient and interesting learning experience [6]. In addition, this research can also provide decision support for policy makers and promote the overall progress and innovation of the education industry. The core purpose of this study is to deeply discuss how AIGC technology affects and promotes the innovation of talent training mode. By exploring the specific application and effect of AIGC technology in personnel training, it can provide a strong theoretical and practical basis for the future development of education.

2. Overview of AIGC technology

AIGC technology is a comprehensive technology that combines artificial intelligence, graphics processing and computing technology. It can process and analyze a large number of graphic data through intelligent algorithms, providing users with a more intuitive and vivid visual experience. With the continuous progress of computer technology, AIGC technology is also developing. From the initial simple graphics rendering to the advanced applications such as virtual reality and augmented reality, AIGC technology has more and more extensive application scope and more powerful functions [7-8]. The core features and application fields of AIGC technology are shown in

  DOI: 10.25236/etmhs.2024.022

Figure 1.

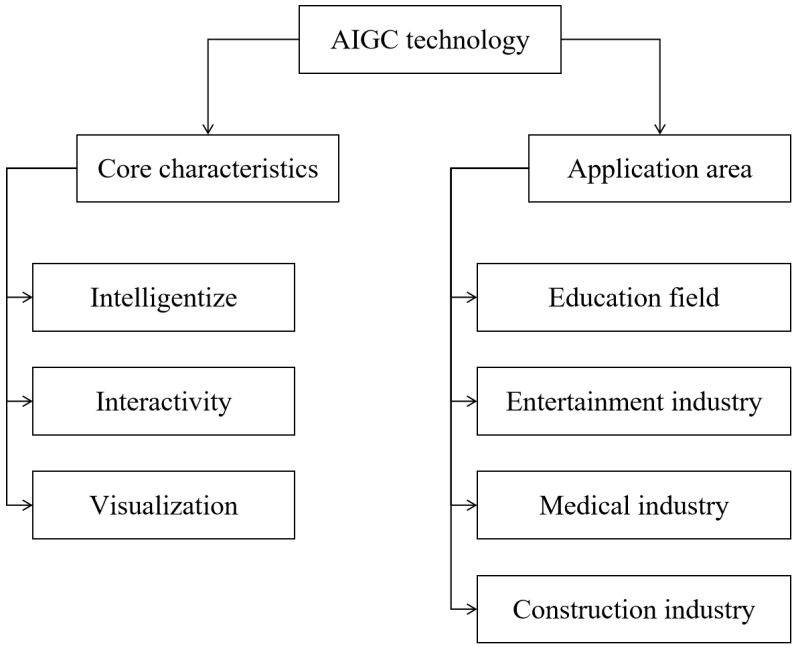

Figure 1 Core characteristics and application fields of AIGC technology

Core characteristics

Intelligence: AIGC technology can use artificial intelligence algorithm to intelligently process and analyze graphic data, and provide more accurate and personalized services.

Interactivity: Through AIGC technology, users can interact with the virtual environment and get a more immersive experience.

Visualization: AIGC technology can display complex data and information in the form of graphics, so that users can understand and analyze data more intuitively.

Application area

Education field: AIGC technology is widely used in education field, such as virtual reality classroom and online simulation experiment, which provides students with more vivid and interesting learning methods.

Entertainment industry: In the entertainment industries such as movies and games, AIGC technology brings more realistic visual experience and immersive interactive feeling to the audience.

Medical industry: In the medical field, AIGC technology is widely used in surgical simulation, medical education and disease diagnosis, which improves the efficiency and quality of medical services.

Construction industry: Architects can use AIGC technology to design and preview buildings, so that customers can understand the design scheme more intuitively.

Military field: In the military field, AIGC technology is used to simulate the battlefield environment and conduct tactical drills, which improves the efficiency and practicality of military training.

3. The status quo and challenges of talent training mode

At present, the traditional talent training mode is mainly based on school education, focusing on the instillation of knowledge and the cultivation of test-taking ability [9]. This model is usually characterized by teacher-centered, classroom teaching as the main form, and students passively accept knowledge. However, there are some problems in this model, such as Table 1:

Table 1 Problems existing in traditional talent training mode

Problem description	Specific analysis
Ignore students' individual differences	The traditional model is based on holistic teaching, and it is difficult to fully take care of the individual needs of each student, which leads some students to feel frustrated or bored in their studies.
Single teaching method	The traditional mode usually adopts lecture teaching, which lacks diversity and interaction, making it difficult for students to maintain their attention and interest for a long time.
Lack of practicality and innovation	The traditional model pays too much attention to the teaching of theoretical knowledge and ignores the cultivation of practical operation and innovative thinking, which limits the all-round development of students.
Time and space constraints are large.	The traditional model relies too much on paper textbooks and face-to-face teaching, which makes students have to study at a specific time and place, lacking flexibility and convenience.
Examination-oriented	The traditional model often takes test scores as the only evaluation criterion, which leads students to pursue scores too much and ignore real learning and understanding.
Teacher-centered	In the traditional mode, teachers are the main body of teaching, and students are in a passive acceptance state, so it is difficult to give full play to students' subjective initiative and autonomous learning ability.

The introduction of AIGC technology has had a far-reaching impact on the talent training mode. AIGC technology provides the possibility for personalized education. Through data analysis and intelligent recommendation, it can provide tailor-made learning resources and paths for each student. AIGC technology enriches teaching methods, such as virtual reality and online interaction, and makes learning more lively and interesting. At the same time, AIGC technology also breaks the time and space constraints, allowing students to study anytime and anywhere, improving the flexibility and efficiency of learning.

However, under the background of AIGC technology, personnel training is also facing new challenges. With the rapid development of technology, teachers need to constantly update their knowledge and skills to adapt to the new teaching environment. Students need to have stronger autonomous learning ability and information literacy in the face of massive information and diversified learning methods [10]. How to ensure the quality and effect of online learning and prevent students from indulging in the network or being influenced by bad information is also an urgent problem at present.

4. AIGC technology-driven innovation mode of talent training

4.1. Design of personalized learning path

Driven by AIGC technology, the design of personalized learning path has become a great innovation in the field of education. Using big data and artificial intelligence technology, we can deeply analyze each student's learning behavior, so as to customize the most suitable learning path for them. The core idea of this design is "student-centered" to ensure that educational resources and teaching strategies can meet the individual needs of students to the greatest extent.

First of all, the system will collect and analyze students' learning data, including learning time, learning speed and knowledge points. These data can help us understand students' study habits and academic level, and provide strong support for subsequent personalized recommendation. Secondly, based on students' hobbies, the system will recommend learning resources and courses in related fields. For example, for students interested in science, the system may recommend more scientific experiments and exploration courses; Students who are enthusiastic about art may be exposed to more art creation and music appreciation. In addition, the system will adjust the difficulty of learning resources according to the students' academic level. For students with good foundation, the system will provide more challenging learning content to stimulate their curiosity and exploration spirit; For students with relatively weak foundation, the system will recommend more basic and

systematic learning resources to help them lay a good foundation and improve steadily. In this process, teachers also play an important role. Teachers can understand students' learning progress and difficulties by looking at their real-time learning data, so as to adjust teaching strategies in time. For example, when a student is found to have repeatedly made mistakes in a certain knowledge point, the teacher can give targeted counseling and explanation.

4.2. Application of intelligent assistant teaching system

Intelligent CAI system is an outstanding representative of AIGC technology in the field of education. These systems integrate many advanced technologies, such as natural language processing, image recognition and machine learning, to provide more intelligent and efficient teaching AIDS. Intelligent recognition is one of the core functions of intelligent assistant teaching system. Whether it is handwritten font or printed font, the system can quickly and accurately identify students' homework and test paper content. This not only greatly reduces the burden of teachers' correction, but also improves the accuracy and efficiency of correction. In addition, these systems can automatically correct homework. Through the preset answer base and grading standards, the system can quickly give students' homework scores and detailed correction opinions. This helps students to know their mistakes and shortcomings in time, so as to make targeted improvements. In addition to correcting homework, the intelligent assistant teaching system can also provide students with personalized learning suggestions. By analyzing students' learning data and fluctuation of grades, the system will generate targeted learning reports and suggestions to help students find the most suitable learning methods and strategies.

4.3. The combination of online learning and virtual practice

The combination of online learning and virtual practice is the innovation highlight of talent training mode driven by AIGC technology. Online learning platform provides students with massive learning resources, so that they can conduct autonomous learning and interactive communication anytime and anywhere. The virtual practice environment creates a safe and controllable practice space for students, so that they can practice and solve problems in simulated real scenes. This combination mode breaks the limitation of time and space and allows students to arrange their study time and place more flexibly. At the same time, the introduction of virtual practice environment has greatly enriched students' learning methods. Students can practice through simulation experiments, role-playing, scene reproduction and other ways to improve their practical ability and problem-solving ability. In addition, this combination mode also improves the interest and practicality of learning. Multimedia resources and interactive games on the online learning platform can stimulate students' learning interest and enthusiasm, while real scene simulation in the virtual practice environment can enable students to better apply what they have learned in real life. This entertaining learning method not only helps students to master knowledge and improve their ability, but also cultivates their innovative thinking and teamwork ability.

5. Conclusions and suggestions

This study deeply discusses the innovative mode of talent training driven by AIGC technology. Through comprehensive analysis, this paper finds that AIGC technology has had a significant impact on the current talent training mode, promoting personalized learning, intelligent assistant teaching and the combination of online learning and virtual practice. With the support of AIGC technology, students' learning efficiency and interest have been significantly improved, and teachers' teaching methods have become more diversified and efficient.

Based on the above findings, this paper puts forward the following policy suggestions and practical guidance: educational institutions should increase investment in AIGC technology to promote the process of educational informatization; Encourage teachers to learn and master AIGC technology in order to better apply it to teaching; The government should formulate relevant policies to support the research and application of AIGC technology in the field of education. These suggestions are of great practical significance for improving the quality of personnel training in

China.

References

[1] Zhu Zhiting, Dai Ling, Hu Jiao. AIGC technology empowers the new thinking of digital transformation of higher education [J]. China Higher Education Research, 2023(6):12-19.

[2] Wang Caixia, Liu Shuangping, Cheng Weidong. Relying on artificial intelligence technology to help train skilled personnel of traditional Chinese medicine [J]. Health Vocational Education, 2023, 41(15):21-24.

[3] Li Yuexuan. application of AIGC technology in artificial intelligence teaching [J]. electronic technology, 2023(10):108-109.

[4] Ming Jianping, Jiang bo, Zhuang Yan, et al.AIGC technology under the impact of regional education development should be a model study [J]. Tianjin Education, 2023(28):16-18.

[5] Lv Chunyu. Research on the cultivation of artificial intelligence technology application talents-taking Jilin Vocational and Technical College as an example [J]. Heilongjiang Science, 2022, 13(5):65-67.

[6] Zhu Zhiting, Dai Ling, Hu Jiao. Highly conscious generative learning: learning paradigm innovation of AIGC technology empowerment [J]. Audio-visual Education Research, 2023, 44(6):5-14.

[7] Wan Liyong, Du Jing, Xiong Ruoxin. Man-machine co-creation: a new paradigm of digital educational resources development based on AIGC [J]. Modern Distance Education Research, 2023, 35(5):12-21.

[8] Jin Tao. Highly conscious generative learning: research on innovative teaching mode of higher vocational machinery with AIGC technology [J]. Paper Equipment and Materials, 2023(10):215-217.

[9] Chen Fang. Research on the function and realization path of aesthetic education in the cultivation of new liberal arts talents-based on the perspective of AIGC reform [J]. Art and Technology, 2023, 36(20):64-66.

[10] Guan Jia, Han Tingzhi, Xu Guoxing. Artificial intelligence technology empowers top-notch talents training in China's higher education [J]. China Audio-visual Education, 2022(10):97-101.