



Research on General Education Curriculum in Higher Vocational Colleges Based on AI Big Model

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Abstract. With the rapid development of AI technology, artificial intelligence has become the core force to promote social progress, which not only affects the economic and industrial structure, but also goes deep into the field of education. By 2024, 537 colleges and universities in China have been approved for artificial intelligence undergraduate majors, and 46 artificial intelligence disciplines have been set up. Many double-class colleges and universities have set up artificial intelligence colleges to reserve talents for the national science and technology strategy. The general course of artificial intelligence is aimed at the development characteristics of artificial intelligence, including basic knowledge and application, artificial intelligence application development, etc., to cultivate leaders and decision makers who understand and use artificial intelligence, so that students from different disciplines, fields and backgrounds can understand and be familiar with artificial intelligence. Through the joint construction of bases and the establishment of experimental teaching, students can go out of the classroom and enter the society, and cultivate their ability to solve complex problems by using artificial intelligence in practice.

Keywords: artificial intelligence, general course, experimental teaching

1 Introduction

Higher vocational colleges [1-3] are important bases for training high-quality technical and technical talents, and they are faced with the dual challenges of industrial transformation and upgrading and educational innovation in the intelligent era. With the rapid development of artificial intelligence technology, intelligent technologies, such as big data, Internet of Things, machine learning and virtual reality, are widely used in all walks of life [4-6]. Most occupations require more and more complicated knowledge and ability of workers, and the demand for compound skilled talents with artificial intelligence knowledge and technology is increasing [7-9]. It can be said that artificial intelligence is impacting and even reshaping the school education ecology. The government work report in 2024 not only mentioned "artificial intelligence" three times, but also proposed the "artificial intelligence+"action for the first time. "Artificial intelligence+education" has become the inevitable trend of future education development. Among them, higher vocational colleges, which are oriented to employment and market

demand, must face the scientific and technological revolution, technological progress and changes in industrial structure, and inject new impetus into the high-quality development of vocational education personnel training.

Under the national intelligent and digital strategic layout, the layout of artificial intelligence-related professionals in Shanghai higher vocational colleges has been paid attention to and developed to some extent [10-12]. However, many higher vocational colleges have not fully considered the technical reserve of "artificial intelligence+" compound talents, and there are obvious shortcomings in the field of artificial intelligence general education, and the curriculum system can not meet the demand for high-quality technical and skilled talents in the intelligent era.

Therefore, this paper takes the construction of artificial intelligence general course system in higher vocational colleges as the research object, and further thinks: in higher vocational education, how should the artificial intelligence general course be positioned and what is its teaching goal? What is the logic of curriculum development, which is to reserve theory before applying it to practice, or to construct theoretical knowledge in practice with reference to the working process? What core contents should a general education course contain? What teaching methods and means should be adopted to improve the teaching effect? How to establish a scientific and reasonable evaluation system to evaluate students' learning effect? Can it provide theoretical guidance and practical plan for the construction of artificial intelligence general course system in higher vocational colleges, so as to enhance students' employment competitiveness? What are the scenarios of artificial intelligence in new energy, new materials, biomedicine and other sectors in the industry? This is the research motivation and focus of this paper.

The general course of artificial intelligence is mainly aimed at non-computer majors in the whole school. For these students, artificial intelligence technology is a tool rather than a research object. Therefore, through the experimental teaching of artificial intelligence general course, students can clearly understand the following three questions: First, what is artificial intelligence? Basic theoretical knowledge. Second, what can artificial intelligence do? The possible role of the intersection of artificial intelligence and other disciplines. Third, how to use artificial intelligence? How to build an artificial intelligence system for students to use. Understanding artificial intelligence means understanding the basic concepts, advantages and disadvantages and limitations, and can adapt to the social characteristics of the intelligent age and artificial intelligence. Applying artificial intelligence means using mature algorithm models and open-source systems to empower your own work and skillfully use artificial intelligence as a basic tool. Managing artificial intelligence means being familiar with the risks of artificial intelligence, so that artificial intelligence can serve the society and become a leader in the era of artificial intelligence.

From the digital world to the real physical world, with the integration of visual model, language model and behavior model, we can control the whole working environment in parallel in fiction and fact without leaving home. This is the only way for mankind to move towards higher freedom and achieve more complete labor liberation. From a global perspective, China needs to walk with the world. Only when all mankind participate in the research and development of open source, shared and free large models can we really promote the equal rights of knowledge, the universal benefit

of intelligence and even the sharing of happiness. In this era of open source cooperation, everyone's wisdom and the efforts of every country will converge into a common force to promote civilization and progress.

2 Related Work on Artificial Intelligence General Course

2.1 Research Status and Trends

First, in June 2024, a full-text search was conducted on HowNet with the theme of "artificial intelligence and general courses", and 181 papers were obtained, most of which were periodical papers after 2020. However, a search on HowNet with the theme of "higher vocational education, artificial intelligence and general courses" resulted in 24 papers, and only 15 research papers from 2020 to 2024 were obtained. At the same time, a survey was conducted on six higher vocational colleges located in the first and second echelons of Shanghai. Only two schools just started the recruitment and mobilization of teachers of artificial intelligence general courses in the first half of 2024, and they have not yet started classes, while other schools have no plans to set up courses yet, and no trends in curriculum research have been seen.

Thus, compared with the national strategy, there is still a big gap between the artificial intelligence general education in Shanghai higher vocational colleges and the demand for digital skilled labor in the future labor market, and it must be improved as soon as possible in academic research and practical research.

2.2 Sorting out Academic Context

Combing the related literature of artificial intelligence general courses at home and abroad, we can briefly summarize and sort out the relevant preliminary studies from the following three aspects:

Educational goal and the remodeling of new knowledge view. In the era of intelligence, the educational goal and knowledge view of artificial intelligence general course are undergoing an important change. Education is no longer limited to imparting knowledge, but pays more attention to cultivating students' innovative ability and lifelong learning ability. Hayes Aneta (2022) puts forward a new view of knowledge, which emphasizes the importance of remodeling teaching and learning in the intelligent age, and advocates that education should turn to cultivating students' ability to work and cooperate with intelligent machines. Geng Yu et al. (2023) pointed out that the course goal should be to cultivate "artificial intelligence +X" compound applied talents, which requires that the course content should not only cover theoretical knowledge, but also combine with the cultivation of practical skills. Zou Cuilan and others (2021) proposed to enlighten thinking, stimulate professional innovation and empower professionals through artificial intelligence general courses.

Innovation of course content and teaching methods. The course content should keep up with the pace of technological development and meet the needs of the industry. Xu Guoqing et al. (2023) analyzed the influence of generative artificial intelligence such

as ChatGPT on occupation and vocational ability, and suggested that vocational colleges should build a student-centered teaching model, pay attention to the personalization of course content and the flexible design of learning path, among which the innovation of teaching methods and means is the key to realize the effective teaching of artificial intelligence general courses. Zhu Yongxin and John Young (2023) discussed the opportunities and challenges of industrial intelligence in educational innovation, emphasized the application potential of new technologies in teaching, and pointed out the impact on teachers' roles and teaching methods. Teachers need to adopt more flexible and innovative teaching strategies, such as project-based learning and flipping classrooms, to meet the teaching needs of the intelligent era. Wang Jianhua et al. (2021) proposed that the teaching content design of artificial intelligence general course should be oriented to students' professional skills and conform to students' career planning.

Educational policy and ethical considerations. Education policy and ethics are the factors that can not be ignored in the development of artificial intelligence general courses in the intelligent era. UNESCO (2021) provides policy makers with guidelines in the field of artificial intelligence education, and emphasizes issues such as ethics and privacy protection that need to be considered in curriculum development. He Changwang and Xiong Heping (2024) discussed the ethical crisis in artificial intelligence education, pointed out the possible impact of artificial intelligence technology and related products on educational ecology, and put forward corresponding counter-measures.

On the whole, most of the existing studies are in the field of general education, involving the repositioning of the goal of artificial intelligence general education, the reshaping of knowledge view, the innovation of teaching content and methods, and educational policy and ethical considerations. These achievements can be used as the basis of this project, and the constructive suggestions put forward are enlightening and influential.

However, there are three shortcomings in the existing achievements: first, the theoretical research focusing on the general course of artificial intelligence in higher vocational colleges is in the initial exploration stage, and the results are very scarce. The main reason is that most of the artificial intelligence courses offered at present focus on computer and artificial intelligence application-related majors, but the artificial intelligence general courses for all majors have not been paid attention to. In the preliminary investigation of six top vocational colleges in Shanghai, no general courses have been offered, and only two have plans to offer them this year. Secondly, vocational colleges have carried out the teaching activities of general courses, and their theoretical research on vocational education courses is insufficient, failing to grasp the characteristics of vocational education and students, and the courses are not "adaptable" enough. The existing research has failed to get rid of the tendency of copying the curriculum system of ordinary colleges and universities, lacking the analysis of the curriculum goal orientation of vocational education type characteristics and the logic analysis of curriculum development of artificial intelligence general education under type characteristics. Third, the orientation of career planning is weak, and the application scenarios of artificial intelligence technology are not explored enough. The application of artificial intelligence technology in office field and future career scene is not deeply explored, the

content tends to be academic, and the knowledge is difficult, which makes it difficult for students to understand and lacks employment-oriented effect evaluation research.

2.3 Distinguishes AI curricula at "Double-class" Universities from other Institutions

First of all, for students studying in a double-class university, you can choose either the direction of artificial intelligence or the direction of science. As long as you make a good study plan, you will have a better learning experience.

The course of artificial intelligence is divided into three parts, one is the basic subject, the other is the computer professional course, and the third is the artificial intelligence course. Computer professional courses mainly involve operating system, programming language, data structure and algorithm, and the overall difficulty is not high. We should focus on training our hands-on practical ability, especially on the cultivation of programming ability.

In addition to basic disciplines and computer knowledge, the direction of artificial intelligence also involves the basics of artificial intelligence, computer vision and pattern recognition, natural language processing, machine learning, knowledge representation and automatic reasoning, robotics and so on. Different schools will focus on it in combination with their own actual conditions (topics, etc.). On the whole, there are many contents in the direction of artificial intelligence. In the process of learning, students should focus on their own actual situation, that is, they should have their own main direction.

Planning is a traditional major with a mature discipline system. The curriculum involves operating system, programming language, data structure, computer network, computer composition principle, database, compilation principle and so on. At present, students majoring in computer science can also choose big data, artificial intelligence and other main directions, and the choice space is still relatively large. If there is a plan for further study, there will be more choice space in choosing computer science major.

The artificial intelligence general course of Shenzhen Polytechnic University effectively serves universities and social institutions. The course is offered online in MOOC College of Smart Vocational Education. There are 912 schools and institutions using this course, including 513 schools, with a total of 7623 courses. Three English courses were launched in UNESCO's International College of Online Education (Artificial Intelligence Application Foundation, Cloud AI Application, Big Data and Artificial Intelligence), and 416 people from 25 countries studied this course, and two online MOOC courses were taught by 70,000 people from nearly 5,000 units. The course relies on the textbook "Artificial Intelligence Application Basis" as the national planning textbook for vocational education during the 14th Five-Year Plan, which was adopted by a group of 985 and 211 undergraduate colleges and universities, with 72,000 copies issued. The online curriculum resources of vocational education were cited by 43 schools, with a total of 57,210 students studying.

The Digital Architecture College of Shanghai Urban Construction Vocational College has taken two parallel measures to build a team of teachers for general courses of "civil engineering specialty+artificial intelligence". On the one hand, professional

teachers with a certain computer foundation are selected for artificial intelligence general education teacher training and professional application teacher training, and enterprise experts are invited to give systematic guidance and training to teachers on a regular basis. The training form adopts the "online+offline" mixed mode, including online training-live interaction-offline training guidance-knowledge-expanding lectures, etc. Online training is the main form, with emphasis on consolidating professional knowledge, supplemented by offline training, case training, supplemented by project actual combat, and practical participation in artificial intelligence projects. On the other hand, teachers are sent to artificial intelligence enterprises for on-the-job practice, and work together to complete the project and improve their application ability. Set up an artificial intelligence master/craftsman studio to undertake teaching innovation, discussion, exchange, teacher training and other businesses, and build the studio into a "double-qualified and dual-capable" teacher training base.

3 Academic Value and Application Value

3.1 General Exposition

Science and technology promote the innovation of education, education trains talents who adapt to the development of science and technology, and talents in turn promote the progress of science and technology and social development. The key to the empowerment effect of artificial intelligence is that all walks of life have artificial intelligence technology application talents. In the era of intelligence, taking the construction of artificial intelligence general course system in higher vocational colleges as the research object, its research value is mainly reflected in two aspects:

Academic value: enrich the innovation and development of artificial intelligence education theory in vocational education, explore the construction and implementation strategy of artificial intelligence general course system different from ordinary universities, and innovate the ideological viewpoint of general course in vocational education.

Application value: Construct the logical framework of curriculum development of artificial intelligence general course system and put forward the corresponding implementation strategies, provide solutions for the opening of artificial intelligence general courses in Shanghai higher vocational colleges, form a generative curriculum resource system in the process of action research, and promote higher vocational colleges to actively open courses, thus improving the artificial intelligence literacy, practical skills and innovation ability of Shanghai higher vocational students. Artificial intelligence empowerment industry is not a simple collection of several industrial categories, but an industrial ecosystem in which artificial intelligence empowers the internal functions of various industries to complement each other. Therefore, we must deeply understand the internal mechanism, formation mechanism and efficiency of artificial intelligence given to various industries. In order to better lead the technical path of the development of artificial intelligence empowerment industry in Shanghai, we carried out a case study in the design of artificial intelligence general course system in higher vocational colleges, and summarized the relevant artificial intelligence empowerment industries in developed countries and regions. On this basis, we can outline and predict the future

development trend, so that Shanghai can catch up with the development of artificial intelligence empowerment industry and become a pioneer and leader in the development of artificial intelligence empowerment industry. We select "artificial intelligence+biomedicine", "artificial intelligence+new energy" and "artificial intelligence+new materials" and other fields. By collecting and analyzing typical cases around the world, this study is devoted to combing the development path and evolution trend of artificial intelligence empowerment industry. Provide scientific basis for planning and decision-making of related industries, promote the wide application of artificial intelligence in industries, promote the innovation and development of intelligent industries, and achieve a win-win situation of artificial intelligence and industrial integration.

3.2 Logical Analysis on the Development of General Course System

Analysis on the differences of artificial intelligence general courses between higher vocational colleges and ordinary colleges: This paper compares the theoretical basis, curriculum concept, objectives, content, organization and evaluation, and analyzes the characteristics of higher vocational colleges in the field of artificial intelligence general education.

Logical analysis of curriculum development: think and analyze the following questions: what are the needs of industry, employers and students respectively? Reserve theory before applying it to practice, or construct theoretical knowledge in practice with reference to working process? What core contents should a general education course contain? Is it centered on the development and application of technology or theory? Generate target or preset target? How to embody personalized learning? How to update the course content in time to keep the cutting edge? How to properly integrate into the application of AI+ industry scenarios?

3.3 Practice-oriented Construction of Artificial Intelligence General Course System

Orientation analysis of curriculum objectives: analyze many factors that affect the setting of curriculum objectives (knowledge mastery, skill training and attitude shaping). For example, students' individual differences, learning characteristics and growth and development needs, the training objectives of higher vocational colleges, the industrial needs facing digital transformation, the logic of artificial intelligence technology application and knowledge development, artificial intelligence ethics and the limitation of class hours and learning environment, etc.

Course content selection: The fields covered by artificial intelligence technology include machine learning, deep learning, natural language processing, computer vision, robotics, expert system, cognitive computing, reinforcement learning, etc. Investigate and analyze the application scenarios of artificial intelligence technology in the office field and future work process. Combined with students' life ("life is education"), study, practice and work scenarios, the artificial intelligence technology application scenarios used in the course are selected and designed, and the technical practical knowledge and

technical theoretical knowledge are excavated. Determine the course content closely related to the actual needs of higher vocational students and their future career development. Ensure that the course content closely meets the needs of the industry and improve students' employment competitiveness. Ensure the proper depth and breadth of the course content, and avoid the content being too complicated or too simple. This paper makes a case study on biomedical, new energy, new materials and other industrial fields endowed by artificial intelligence in Shanghai, and deeply explores the common characteristics, basic development context and future development trend of different industrial fields under the blessing of artificial intelligence, with a view to providing reference cases and replicable development models for Shanghai's artificial intelligence empowerment industry.

The organization and implementation of curriculum content: the organization of the guiding content of constructivism learning theory. First, artificial intelligence application scenarios are the best scenario learning. Second, through classroom interaction, the course content is constantly generated and iterated, and students are also the creators of the content. Thirdly, teachers should flexibly choose problem-based learning, inquiry learning, case learning, project learning, cooperative learning and blended learning. Fourth, strengthen skills training, construct theoretical knowledge in practice and learn deeply in reflection.

Results-oriented effect evaluation: Facing the industry demand and employment, design a course effect evaluation system to evaluate students' knowledge mastery, skill application and professional accomplishment. Through questionnaires, interviews, internship feedback and other ways to collect evaluation data, pay attention to and analyze learning transformation. Assess whether applied talents with innovative consciousness, practical ability and professional skills have been cultivated and know how to use artificial intelligence technology to drive the development of the industry.

3.4 Construction of Experimental Platform

Because of the practicality and expansibility of artificial intelligence general education, our school has built an experimental platform for artificial intelligence general education based on a large model. Integrate deep learning frameworks such as TensorFlow and PyTorch, and data management platforms such as Hadoop and Spark to provide students with rich experimental tools. It includes virtual desktop experimental tool platform, Jupyter data analysis experimental tool platform, etc., which supports course experiment, project training and scientific research development. It provides hundreds of large language models and services, and supports the integration of large models and disciplines. It provides programming experiments in logic reasoning, neural network, image processing, deep learning, computer vision, natural language processing, knowledge engineering, speech recognition, face recognition, pattern recognition and other directions.

3.5 Experimental Teaching Method

Artificial intelligence technology involves many disciplines such as computer, mathematics, linguistics, etc., and there are many complicated algorithms and models, and various application scenarios. For non-computer majors, the experimental teaching method of artificial intelligence general course should be different from that of artificial intelligence professional course, and the experimental teaching content should be integrated with the goal of cultivating compound talents, and the balance should be made in artificial intelligence thinking, technology and application. Combined with the engineering background of our university, the case-inspired experimental teaching method is adopted. Knowledge reserve of machine learning principle before experiment. Machine learning is to study how computers simulate or realize human learning behavior, so as to acquire new knowledge or skills, reorganize existing knowledge structures and continuously improve their own performance. It is the core of artificial intelligence and the fundamental way to make computers intelligent. The core of machine learning principle is to learn and find rules automatically from data by using algorithms and models in a data-driven way, and then realize prediction and decision-making. The assessment method of experimental course adopts teaching objective assessment, in which "understanding artificial intelligence" accounts for 40%, "applying artificial intelligence" accounts for 40%, and "managing artificial intelligence" accounts for 20%. Among them, the assessment of "Understanding Artificial Intelligence" and "Applying Artificial Intelligence" modules is automatically judged by the automatic evaluation function provided by the experimental platform according to the students' completion. The module of "Managing Artificial Intelligence" requires students to form a team to complete data collection, data cleaning, data labeling, model training, model verification and other links according to the comprehensive experimental design topics, and form a report for reporting and scoring.

4 Goals and Results

Based on the curriculum theory, knowledge theory and learning theory of vocational education, a set of artificial intelligence general course system in higher vocational colleges is constructed with the improvement of students' employability as the foundation. Clarify the curriculum objectives, knowledge scope and skill requirements, innovate teaching and learning methods such as task-driven, inquiry learning and cooperative learning, develop teaching resources, design evaluation system, establish feedback channels, and continuously iterate and optimize the curriculum. It provides support for teaching innovation and practical exploration for offering artificial intelligence general courses in higher vocational colleges, and provides policy suggestions for educational policy makers on artificial intelligence education in higher vocational colleges.

In this paper, starting from the general education of artificial intelligence in higher vocational colleges under the background of intelligent era, the literature research method is used to review the research status quo, analyze the research trends and problems, the academic value and application value of the project, and determine the research object. Based on the curriculum theory, knowledge theory and learning theory

of vocational education, this paper studies and thinks about the basic problems in the construction of artificial intelligence general curriculum system in higher vocational education. Through interviews, questionnaires, observations and other investigation and research methods, combined with action research, it studies the logical framework of curriculum development and constructs the curriculum system. Among them, the logical framework of curriculum development includes: internal and external demand investigation and analysis, student characteristics analysis, construction and development mode selection and analysis, artificial intelligence technology application scenario analysis, content selection principle analysis, content organization mode selection deposit, and the construction of curriculum system includes: curriculum goal orientation analysis, scenario-based content selection, curriculum content organization and implementation, and result-oriented effect evaluation. Finally, the implementation strategy is put forward.

4.1 Experimental Results and Analysis

The scores of students in the experimental group and the control group were compared, and the performance differences between the two groups were evaluated by analysis of means and independent sample t-test. As shown in Table 1, the results of all evaluation links in the experimental group are higher than those in the control group, especially in classroom tests and homework. It can be seen that the whole process evaluation mechanism of comprehensive evaluation method can reflect students' learning effect more comprehensively and play a positive guiding role in students' learning behavior.

Table 1. Sample t-test student performance evaluation.

Performance data	experimental groups	control groups	significant difference
Pre-class test	83.7	79.6	0.033
Classroom detection	87.9	82.3	0.016
Homework after class	86.8	78.8	0.023
final exam	92.3	87.2	0.042

4.2 Analysis of Students' Classroom Behavior

Record students' classroom participation data through the AI platform, including the number of classroom answers and participation rate. The results in Table 2 show that the classroom participation rate of the experimental group is significantly higher than that of the control group, indicating that the comprehensive evaluation method can effectively stimulate students' enthusiasm for classroom participation. The students in the experimental group have a higher correct rate of interactive answers, which shows that classroom dynamic evaluation can help students better grasp knowledge points.

Table 2. Evaluation of students' classroom behavior.

Behavioral data	experimental groups	control groups	significant difference
Number of answers in class	19.3	8.63	0.023
Classroom participation rate	93.5	75.3	0.036
Correct rate of interactive answering questions	88.3	69.8	0.015

4.3 Analysis of Teaching Effect

Introduction to Artificial Intelligence is an interdisciplinary elective course for compound talents, and its teaching effect is followed up. Select 2000 students from Shanghai Vocational Colleges before and after the curriculum reform as the research object, and issue 3500 questionnaires, and draw the following conclusions, as shown in Table 3:

Table 3. Comparison table of curriculum reform effect.

Questionnaire survey options	Before the curriculum reform	After the curriculum reform
Is it necessary to take the course Introduction to Artificial Intelligence?	32%	93%
Is it helpful for your professional or career planning?	43%	87%
Is it difficult to study?	67%	37%
Is the teaching mode satisfactory?	53%	91%
Are you interested in new computer technologies such as artificial intelligence?	38%	78%

The analysis results show that most students think it is necessary to study artificial intelligence related courses, and the study of this course is helpful to realize the innovation and upgrading of their majors. Especially for the cultivation of compound talents, the study of this course can not only stimulate students' enthusiasm for learning artificial intelligence and innovative thinking of man-machine collaboration, but also promote the deep integration and development of interdisciplinary subjects, which can lay the foundation for subsequent artificial intelligence+professional learning and innovation and entrepreneurship.

5 Conclusion

This artificial intelligence general course will predict the development trend of Shanghai's artificial intelligence empowerment industry in the future on the basis of the development context of head enterprises and innovative institutions selected in various industrial fields and the analysis of survey data, and try to sketch out the development

route map, and design a prediction model for the next stage of curriculum development, so as to describe the development context and prediction form scientifically and vividly. Compared with the traditional evaluation method, the comprehensive evaluation system based on AI has obvious advantages in the following aspects: First, the learning effect of students has been significantly improved. The average scores of students in the experimental group in pre-class test, classroom test, after-class homework and final exam were significantly higher than those in the control group, and the difference in total evaluation scores was statistically significant. Secondly, the enthusiasm of classroom participation has been significantly improved. The number of classroom answers, the participation rate and the correct rate of interactive answers of students in the experimental group are better than those in the control group. Third, students' autonomous learning ability is enhanced. Real-time feedback and periodic evaluation supported by AI technology help students find problems in time and adjust their learning strategies, which improves their autonomous learning ability and practical ability. Relying on artificial intelligence technology, the evaluation system realizes the all-round evaluation of students' knowledge mastery, ability development and learning attitude, and promotes the overall improvement of students' comprehensive quality. Evaluation data provides accurate teaching feedback support for teachers, which can help them optimize teaching design and resource allocation.

AI helps to narrow the educational gap caused by regional and economic differences. Through the online education platform, students in remote areas can also have access to high-quality educational resources. In addition, AI can also find unfairness in education through data analysis and provide decision-making basis for policy makers. Artificial intelligence brings unprecedented opportunities and challenges to the field of education. Through personalized teaching, intelligent auxiliary tools, virtual experiments, online education and other ways, AI is changing our learning methods and educational models. However, the following issues such as data privacy and algorithm transparency also need our high attention. Looking forward to the future, with the continuous progress of technology and the continuous improvement of policies, we have reason to believe that AI will become an important driving force for changes in the field of education and write a new chapter for human education.

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