

Research on Balanced Development of Urban and Rural Compulsory Education in the Context of Artificial Intelligence

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ABSTRACT

As we all know, we are currently living in an era with rapid development of information technology. In this era, the development of various information technology is very fast, and has played a role in various social work, with education as one of them. This has given birth to the so-called education work in the context of artificial intelligence (AI). Relevant research and analysis show that the application of AI technology in compulsory education in urban and rural areas has led to a significant improvement in the quality and efficiency of teaching. Therefore, in this paper, we will study and analyze the balanced development of urban and rural compulsory education in the context of AI. Its primary task is to help the development of urban and rural compulsory education keep up with the new situation of the rapid development of artificial intelligence technology, which is particularly important for the future development of education in China.

Keywords: *Artificial intelligence, Era development, Urban and rural education, Compulsory education, Balanced development, Research and analysis.*

1. INTRODUCTION

On 16 May 2019, the International Conference on Artificial Intelligence and Education was opened in Beijing, at which the Chairman of Iflytek Co. Ltd. has clearly proposed the "Dream of Education in the Age of Artificial Intelligence". He believed that there are two problems remain to be solved urgently in current education. First of all, we should ensure the balance of the level of compulsory education, and the second is to reduce the burden of teachers and students, both of which can be solved in the context of artificial intelligence. In order to put forward corresponding solutions and suggestions for China's compulsory education, we will try to analyze and discuss the balanced development of urban and rural compulsory education from the perspective of the profound impact of artificial intelligence technology on education.

2. OVERVIEW OF THE CURRENT KEY ISSUES IN APPLYING AI IN COMPULSORY EDUCATION IN URBAN AND RURAL AREAS IN CHINA

2.1. Lack of Uniform Curriculum Standards

As we all know, for the balanced development of compulsory education in China

In order to eliminate the unbalanced development between urban and rural compulsory education schools in China, a unified curriculum standard is of critical importance, but after relevant observation, we find that in the context of artificial intelligence, there is only a traditional and unified curriculum standard for compulsory education in urban and rural areas in China, while lacks curriculum standard adapted to the era of artificial intelligence. This has made it difficult to start the AI curriculum in both urban and rural compulsory education in China. Therefore, the most important point is to solve the problem of "lack of unified curriculum standards" in order to integrate AI into compulsory education in both urban and rural areas ^[1].

In addition, due to large difference between the students of primary and secondary schools in compulsory education, including differences in age and fundamental knowledge, the AI curriculum must have a relatively clear stage and differentiation, so as to match the purpose of personalized teaching. In this case, the unified curriculum standards become even more important, therefore, in the subsequent development of urban and rural compulsory education, the relevant staff need to develop a unified standard of AI curriculum for primary and secondary schools in urban and rural areas across the country as soon as possible, so as to drive the development of compulsory education in urban and rural areas toward the direction of AI. Of course, during the process, domestic urban and rural compulsory education institutions can also independently develop and apply artificial intelligence curriculum in order to improve their own teaching efficiency, the main purpose of which is to improve the teaching result. As time goes by, the citizens have novel and higher requirements for the development of various undertakings. In these developing undertakings, the first and foremost is education. The current level of compulsory education in urban and rural areas has gradually failed to meet the requirements of contemporary citizens. In this case, In the era of rapid development of artificial intelligence technology, it is of great importance to eliminate the gap between urban and rural compulsory education schools^[2].

2.2. Insufficient Faculty Resources

The compulsory education has been developing in China for many years. The normal colleges in China also cultivate the teachers for traditional compulsory education. This has led to the insufficiency of teachers with artificial intelligence teaching training in the new era. It is acknowledged that the most crucial part of education is the standard of the teachers. If there is a relatively large insufficiency in faculty resources, it will affect the quality of teaching^[3].

According to the relevant research and survey, at present, there are very few institutions in China training talents for AI education, with only about a dozen institutions engaged in this work. Many normal colleges and universities in China still focus on training talents for traditional compulsory education, so there are few courses on artificial intelligence in the relevant curriculum, which makes the number of talents delivered for the AI education so insufficient thus fails to meet the demands of the market environment. Moreover, the distribution of AI education talents is not even, and most of these talents are concentrated in areas with a better development environment in China, such as Shanghai, Beijing and Guangzhou, etc. Under this general environment, It is difficult for schools with compulsory education level to obtain professional and technical personnel in the field of artificial intelligence^[4], and the

balanced development of urban and rural compulsory education in the context of AI will also encounter more difficulties.

3. EFFECTIVE COUNTERMEASURES FOR BALANCED DEVELOPMENT OF URBAN AND RURAL COMPULSORY EDUCATION IN THE CONTEXT OF AI

3.1. Raising the Ideological Awareness of the Public

In the actual development of balanced urban and rural compulsory education in the context of AI, the top priority is to develop it as a public undertaking. In the process of development, we should safeguard the right of compulsory education for all citizens and take the public into consideration. The relevant departments and units should take a holistic view and fully recognize the importance of AI in the balanced development of urban and rural compulsory education. In order to achieve the coordinate development of the two, the balanced development of urban and rural compulsory education in the context of AI has to be incorporated into the overall plan of education reform in every region^[5] and to guide the development of every region step by step. In addition, the government plays an essential role in this work, thus the government has to vigorously promote the awareness of the public and raise the awareness of the importance of artificial intelligence for the development of compulsory education, which is beneficial for smooth and stable development of balanced urban and rural compulsory education in the context of AI^[7].

3.2. Strictly Enforcing the Standards of School Running

In order to make a thing successful, it is necessary to establish norms and standards, which is a key work for China's urban and rural compulsory education schools. In the future to eliminate the unbalanced development of urban and rural compulsory education schools, we need to rely more on the power of artificial intelligence technology, as a compulsory education institution, the most important issue is to strictly implement the standards of school operation, so that every primary and secondary school student can receive a fair education. In the age of AI, which is also the age of information technology, the environment in which primary and secondary school students live has changed significantly, and one of the most important manifestations is that the sources of information have become extremely extensive. Therefore, school authorities should have a perfect command of artificial intelligence technology to manage primary and secondary school students in the actual development of the education business, so that the standards of school running can be relatively strictly enforced. In this environment, although primary and

secondary students are subject to certain constraints [6], the school authorities have become more controllable over the students, It is of great value for the balanced and healthy growth of compulsory education schools in urban and rural areas^[9].

3.3. Improving the Continuous Supply of Highly Qualified Teachers

As aforementioned, there is a lack of qualified teachers in the process of balanced development of urban and rural compulsory education in the context of AI, and the most important thing for an educational undertaking is actually the faculty resources. Therefore, the development of balanced development of urban and rural compulsory education in the era of AI requires continuous improvement of the supply of highly qualified teachers. In order to achieve the target, the school authorities need to specifically improve the quality of teachers, first of all, to meet the requirements in terms of the number of teachers, followed by correspondingly improving the salary of teachers, so as to attract more professional teachers in the era of AI into the school. Over time, the goal of balanced development of urban and rural compulsory education in the context of AI can be gradually achieved. In addition, if necessary, school authorities can invite experts and scholars in AI education to the school [7]. After long-term practical work, it is believed that the work of urban and rural compulsory education in China can develop toward a balanced direction, which is urgently needed in urban and rural compulsory education^[10].

3.4. Establishing a Mobility Mechanism of Teachers

Although after a long period of development, the comprehensive faculty resources in China have had a relatively great improvement, in order to make the development of compulsory education in urban and rural areas under the background of artificial intelligence more balanced, it is necessary to establish the mobility mechanism of teachers. Through the dual-teacher cloud classroom and other technologies, teachers at teaching schools can not only watch the recorded classes, but also have online interaction, enabling the completely same screen on both sides of the classroom. This provides distance learning with liveness and makes live teaching more immersive and interactive. In addition, all classroom teaching can be recorded in real time via voice recognition for easy viewing and checking afterwards. This makes the application and maintenance of the teacher mobility mechanism smoother, and the teaching work of the teachers will not be difficult after the mobility. This will be very helpful to eliminate the differences between the development of compulsory education schools in urban and rural areas. The burden on both teachers and students in terms of coursework is less under

the AI context. This provides a solid basis for the implementation of teacher mobility mechanisms^[11].

3.5. Securing Adequate Financial Input

Although the "artificial intelligence" has emerged in the view of the general public for a very long time, the economic expenses in the development of the vision of AI education is actually very huge. Therefore, the financial input needs to be secured in current balanced development of urban and rural compulsory education in the context of AI. The intelligent marking system developed by AI technology can not only correct objective questions like multiple choice questions, true-false questions and completion, but is also capable of markings essays^[9]. An objective score is given to each student by judging the vocabulary and grammar in each essay. This not only helps to develop the student's potential, but also gives a good idea of how well the student has mastered the knowledge. At present, such intelligent marking systems are already regularly applied in many schools across the country. Through the accumulation and analysis of students' procedural data, students' learning dead zones are pinpointed so that they can be taught according to their abilities and personalized tutoring can be provided. However, it is important to know that there are still huge economic expenses of this artificial intelligence system. Artificial intelligence technology also offers a viable solution to the uneven distribution of educational resources that currently exists. Qi Dong, President of Beijing Normal University, demonstrated that "the combination of new AI technology, VR technology and big data provides rich and varied information that allows children in remote mountainous areas to expand their horizons." Therefore, the financial input should be secured in the subsequent development process^[12].

4. CONCLUSION

In summary, this is the research and analysis of the balanced development Analysis on the unbalanced development of urban and rural compulsory education schools in the period of rapid development of artificial intelligence technology. It can be concluded from the text that the actual level of development of this work is not high, so it is necessary to pay more attention to the details in the process of balanced development. In this development process, the relevant staff also need to carry out continuous optimization and improvement of the work. This is the only way to basically eliminate the development differences between urban and rural compulsory education schools in the era of rapid development of artificial intelligence technology.

This paper is the research achievement of the research on balanced development of urban and rural compulsory education in the era of "Internet plus" in Jiangxi province education science planning subject (17YB241).

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