

The Contribution of AI to the Development of Teaching

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Abstract: The rapid development of artificial intelligence (AI) has made excellent contributions to the development of teaching. This contribution is reflected not only in the breakthrough of the traditional teaching methods, but also in targeted solutions to the differences in the individual learning situation of students, which can effectively improve students' academic performance. Thus, AI is very important in education. This paper starts from the mainstream function of AI, focuses on the application of it in teaching, and makes exploration of the future of teaching.

Keywords: AI, teaching, contribution.

1. Analysis of AI Related Concepts

As for the understanding of AI, I personally think that it is to let the computer imitate some human thinking or behavior. AI is an important part of computer science, and it is a high-level application of computers. With the advancement of technology, AI has become more and more mature in the theory and application since its birth. AI has been used in many fields such as healthcare, finance, education, transportation, manufacturing, etc., and has become an important driving force for social progress and economic development. It is expected that the future of AI will bring great convenience to our human life, but it should be noted that AI will not replace human beings as it cannot think independently.

2. Challenges Faced by Current Teaching Methods

Teaching styles and methods are moving forward as time passes by, and there are more and more researches about teaching and learning. Teachers' teaching styles will directly determine the effect of "teaching", which in turn will affect the students' learning enthusiasm. Therefore, how to choose an effective teaching style has become a challenge for teachers. From the theoretical level, students as the recipient of teaching, teachers must choose the teaching method according to students, such as the knowledge they have mastered, the willingness to learn. However, in actual teaching process, teachers have to choose an effective teaching method. Most teachers do not seriously consider students' factors, but are more accustomed to the traditional teaching methods, teachers in charge of the class. Meanwhile, under the influence of exam-oriented education, many teachers usually focus on improving students' marks when choosing teaching methods. As a result, the teaching method gradually loses its original relevance and effectiveness, which makes the whole teaching activity fail to achieve the expected teaching effect, and ultimately difficult to foster high-quality comprehensive talents for the development of our country.

2.1. Insufficient Attention to Students in the Classroom.

At present, most teachers lecture in class, rarely combining with other teaching methods. Students are just passive to accept knowledge. It should be fully recognized that students are the main body of the classroom, with teachers assisting and guiding. If you ignore students as the main body of the classroom, it will be difficult to achieve better teaching results. Even if teachers use multimedia teaching methods, it is still difficult to achieve the expected teaching results. The reason is that teachers just show and read PPT to students without any further explanation, which lessens the learning effect. Teachers will assign some homework to the students at the end of the class. These are the all basic teaching methods and steps of most teachers. With more and more use of multimedia teaching, which leads to students' tiredness, many teachers apply multimedia equipment only at the



relatively low level, the advantages of multimedia teaching are not fully realized, which makes it difficult to ensure the effectiveness of teaching.

2.2. Lack of Cutting-edge Technologies in Classroom Teaching.

With the continuous development of science and technology, there are more and more scientific and technological means applicable to the field of teaching, such as AI, big data, cloud computing, etc. The application of these new technologies in the field of teaching has a very positive effect on promoting the teaching methods and improving the teaching system. However, few teachers have introduced these technologies into classroom, which has led to the teaching method behind our time, and in turn affects the further improvement of teaching quality. Students are very sensitive to new things, so if teachers introduce new technologies and adopt new teaching methods, it will certainly stimulate the students' interest in learning, and then improve the learning effect. For example, Based on each student's exams, learning status and other aspects of the situation, AI technology can develop their own learning plan for each student, and then you can use big data analysis to achieve a comprehensive control of students' learning, and the results of the analysis can be shown in the form of data charts.

3. Application of AI in Teaching Methods

At present, AI has been vigorously developed, and its application has become more and more extensive. It has been better developed in the fields of transportation, finance and medical care. In the field of education, and it has also been well applied in education, which provides a driving force for the development of teaching. In general, the introduction of AI in teaching breaks the traditional model. Students become the main body of teaching activities, and all teaching activities must be carried out with the students as the center. Even if the individual differences of students lead to different abilities of acceptance and understanding, AI will effectively ease the pressure of teaching and can be used to carry out the teaching targetedly, and thus comprehensively improve the quality and effectiveness of teaching.

3.1. Targeted teaching

For students, it is very important to have a set of individual learning plan, which takes into account their own learning status, learning performance, learning ability and other factors, which makes the learning plan targeted, scientific and effective. For example, for students who do not master the basics well, AI will focus on strengthening the basics when making plans for them. Again, each student's learning situation is different, AI can develop a different learning plan based on the actual learning situation of students. For students with low learning efficiency, appropriately reduce the difficulty of the learning content, which can enhance the students' sense of achievement and stimulate the students' interest in learning. And then gradually increase the difficulty of the learning content. For students with low grades, AI can enhance the basic knowledge part first, and then gradually raise the difficulty of the teaching content, and finally explain the difficult part.

For teachers, AI can help plan teaching for different students, basic exercise for weak parts, and challenging exercise for well-mastered students. It should be noted that in deepening the challenging exercise, teachers need to pay attention to students' learning situation, if the students can adapt to the difficulty, teachers can expand explanation. If students cannot adapt to this difficulty, teachers can choose to reduce the difficulty. In short, whenever deepening the challenging difficulty level, teachers strive to make most students understand.

All in all, the introduction of AI in teaching can not only cultivate students' good learning habits, but also effectively reduce the teaching pressure on teachers due to individual differences in students, so that teachers can carry out their teaching work with ease.

3.2. Cultivation of Learning Enthusiasm.

As students are very exploratory to new things, the introduction of AI in teaching is new to students, which will stimulate students' learning enthusiasm, thus it will enhance their sense of independent learning, so that students can devote more time to learning. There is usually a big difference between the learning outcomes of passive learning and active learning, so the introduction of AI in teaching is very helpful to stimulate the learning enthusiasm of students.

chers' abilities. This requires teachers not only to have a higher level of teaching, but also to have a certain degree of understanding of AI, such as understanding what artificial intelligence is and how artificial intelligence is integrated with teaching. For the vast majority of students, their understanding of AI is very limited. If teachers can correctly introduce AI into teaching, it will certainly stimulate the students' learning enthusiasm, and encourage students to cultivate independent learning ability, from passive learning to active learning, and then students will be able to develop their own learning ability and comprehensively improve their learning quality and learning effect. For teachers, the introduction of AI in teaching not only helps improve their own business level, but also improve the quality and effectiveness of teaching.

References

- [1] YANG Jinlong,LI Chaofeng,FANG Wei. Discussion on the teaching reform mode of Artificial Intelligence course[J]. Education Modernization,2017,4(04):32-33.
- [2] Li Hongbin. Teaching Exploration and Practice of Artificial Intelligence in Senior Elective Courses of Applied Undergraduate[J]. Education Modernization,2017-4(5):75-76.
- [3] Yi-Pu Zhang, Maode Yan, Qi Chang. Teaching reform and practice of pattern recognition course based on artificial intelligence background[J]. Shaanxi Education(Higher Education),2018(11):26+40.