Analysis on the Application of artificial Intelligence in classroom

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Abstract. With the continuous development and strength of information, the development of artificial intelligence has also moved towards a new stage, gradually living, but also only applied in a few fields and a few regions. Therefore, this paper puts forward a tentative idea whether artificial intelligence can be used in our classroom in the near future. With the smart phone, IPD and other intelligent items in the life of more and more widely used, its simplicity and intelligence, so that all the young and old, the use of a wide range of people, and easy to accept. With the diversity of modern life, the needs of students in the new era are becoming more and more widespread, while the traditional classroom teaching mode is being issued. Birth change, but the form is still relatively single, so for the traditional classroom, intelligent classroom will show a great advantage. It is possible to make students understand the content of the course before the beginning of the course by simulating the form of the real class, and choose the style and form of the course according to the students' ability and interest in the learning process. In the era of the vigorous development of artificial intelligence, the development of intelligent classroom and intelligent classroom will not be underestimated, and intelligent classroom will also play a great role in the development of life in the future.

1. The background of artificial Intelligence

1.1 meaning and development of artificial intelligence
Artificial intelligence is a new technology science to research and develop the theory, method, technology and application system for simulating, extending and expanding people's intelligence. Artificial intelligence includes a wide range of subjects, such as machine learning, computer vision, language recognition, image recognition, natural language processing, and the like. The artificial intelligence can simulate the man's will, the thinking, and so on, and the human intelligence can complete the complex work that needs human intelligence to complete.

In 1943, when artificial intelligence entered its budding stage, it began to establish artificial neural networks and mathematical models, marking the beginning of the era of artificial intelligence research. In 1950, Turing, the father of artificial intelligence, published an article entitled "can the Machine think?" And put forward "Turing test", greatly promoted the development of artificial intelligence, so that more people understand artificial intelligence and put into the study of artificial intelligence. In the 1970s, with the development of BP algorithm, the reduction of computer cost and the improvement of computer computing ability, fresh blood was injected into the difficult road of artificial intelligence. In the period from 1980 to 1989, with the widespread recognition of the neural network, the development of the BP algorithm, the improvement of the computer hardware speed, the development of artificial intelligence is promoted, and the cost of the artificial intelligence is greatly
reduced by using the distributed network. In the 21st century, with the development of the Internet, artificial intelligence has entered a period of rapid development, and with the development of the Internet, artificial intelligence has entered a period of rapid development, and the scope of research has become more and more extensive. In the global context, the United States has kept growing investment in artificial intelligence, while others have slowed the pace of research on artificial intelligence, although China's investment in artificial intelligence has continued to grow, but it is still in the early stages of growth.

1.2 the characteristics and problems of artificial Intelligence in China
First, as far as technology is concerned, artificial intelligence is based on in-depth machine learning. In the early stage of development, the corresponding talents are in short supply, and the cost of training talents is relatively large, so there is a large demand gap. Second, in order to respond to the development of artificial intelligence, China's traditional industries and technologies have provided great support, for example, cooperation with artificial intelligence in medical and health care, automotive self-driving, and finance, and so on. The application and commercialization of artificial intelligence has been promoted. Third: in terms of the characteristics of the industrial chain, there are some outstanding large companies in our country very advanced in the development of artificial intelligence, they are in the basic layer, the technical layer, the application Layers have layouts, and their professionalism is very strong, and the study of a certain field and details is very in-depth. This also makes each company and the technology existence certain difference.

Although China's artificial intelligence industry has made great progress, there are still some problems that need to be solved. First, the development of artificial intelligence technology in our country is relatively weak, such as the low degree of opening and sharing of data and the dispersion of data resources, which makes artificial intelligence lack of a large number of effective data to do analysis. The imperfect development of technology makes the understanding of artificial intelligence professional knowledge not deep, and there are technical risks in the process of application and experiment. Second, at the beginning of the development of artificial intelligence, there will be various difficulties, which will bring great challenges to the development of artificial intelligence. Moreover, the artificial intelligence developed in this paper is not. It's artificial intelligence in the full sense. Therefore, there is still a lot of room for the development of artificial intelligence in China.

1.3 Analysis of the Development trend of artificial Intelligence in the Future
First: vigorously train technical personnel to provide power for artificial intelligence
From the current situation and existing problems of artificial intelligence, the lack of talents is an important factor that hinders the development of artificial intelligence. With the development and wide application of computer, although a large number of research results of artificial intelligence have appeared in our country, it still lags behind the international level in technical aspect and lags behind the United States in the field of talent reserve.

Second: the development of artificial intelligence will become a new trend
There have been many excellent AI start ups in various countries, they have mature team configuration, advanced technical capabilities and healthy cash flow, if these excellent companies can accumulate a lot of technology and foundation, Then artificial intelligence will continue to develop in an all-round way and become a new trend of computer development.

Third: "artificial intelligence" will become new business type
With the development of Internet, Internet has greatly promoted the development of economy and computer field. Therefore, with the hot development of artificial intelligence, "artificial intelligence" has also entered the embryonic state, more and more regions and fields have been applied artificial intelligence, which will make "artificial intelligence" become a new industry and continue to develop.
2. Development and Application of Intelligent classroom

2.1 Development and problem Analysis of Intelligent classroom
With the advent of the intelligent age, artificial intelligence has been applied in many fields, such as medical health, catering and so on, but it has not been applied in the class of students for the time being. With the development of social modernization and the progress of social requirements, single teaching can no longer meet the requirements of the development of modern students. Therefore, the implementation of intelligent classroom will inject new blood into the development of students.

The so-called intelligent classroom, based on the in-depth development of modern robots, sets intelligent robots into the form of desks, and students' desks will no longer be traditional wooden desks. Let each student's "desk" store a large amount of learning materials related to the students at this stage, and inject a large number of materials from different types of teachers and students with different characteristics into the secondary "desk". Through a large number of data to train the "desk" of learning and interpretation skills. The ultimate goal is to ensure that this artificial intelligence can absorb the important and difficult points of the teacher in the future class, and according to the characteristics of different students and the needs of each class and each class. Students have different levels of understanding to explain to students, and there is also a large number of knowledge stored outside the course, so that each student can choose and cultivate different specialties according to their own interests. This desk has the function of absorbing new information, understanding and analyzing new information, and applying new information.

There may be some problems encountered in the development of the "desk". For example, in order to make the "desk" intelligent, it is necessary to import a large number of data for training and require that the data be representative and unique. And because the classroom intelligence is in the new stage of development and there is not a large amount of off-the-shelf data to meet the requirements, the collection and processing of data will cost a lot of manpower and material resources.

2.2 The application and problem analysis of intelligent class
The intelligent classroom has two main functions. On the one hand, the "desk" will absorb the content that the teacher teaches in each class, and the students can understand it through the "desk" according to their own needs and the place that the teacher does not know. Because each student likes to teach in a different style, the absorption of the course and interest in the course is different, students can from the "desk" from the teacher this lesson to the content of their favorite style. This function is based on a large number of different teacher lecture styles stored in the desk. On the other hand, each student can enter the virtual classroom provided by the robot in this virtual reality In real class, students can try areas that they dare not try in real life, and the more areas they try, the more "desk" can more accurately analyze the areas of development that are best suited to each student. Moreover, each student can submit his or her ideas to the "desk," and there is no requirement for the ideas submitted by the students, so each student can set up a "learning garden" of his own in the "desk". I can set the rules, you can build this "learning garden" according to your own ideas, and the "desk" also implements the communication function, can visit and learn from others. Like this. Practice can improve students' ability to create, analyze and think.

However, in the application process, there will also be some problems. On the one hand, in the initial application stage, because most of the users do not understand, so a large number of talents need special guidance. On the other hand, the research on artificial intelligence is not perfect, and there may be some problems in hardware, so we need professional maintenance personnel, and in our country, there are very few talents in this area. Therefore to this kind of "desk" the widespread application causes the obstacle.

2.3 comparison between Intelligent classroom and traditional classroom
First: in the form of courses, intelligent classes can provide different styles of teaching, students can choose to suit their own style according to their favorite choice, while in the traditional classroom
model, only one teacher is speaking. Therefore, teachers can not meet the needs of every student, so intelligent class gives students more choices.

Second: intelligent classes provide virtual classes that can provide each student with a different teaching strategy based on each student's different interests. While traditional classrooms can only provide a strategy and method for the majority of students, they can accept different areas that are meaningful and interesting to their own development, in addition to the knowledge of the curriculum that has been specifically arranged, and that the traditional classroom can only provide a strategy and method at the request of the majority of students. And provides the knowledge level and the content is relatively single, does not accord with the present society request student all-round development request.

Third, the intelligent classroom is not as humanized as the traditional classroom. Although the intelligent classroom is based on artificial intelligence, artificial intelligence can not completely imitate the mode of thinking of human beings. When unexpected situations and machine unexpected situations occur, it is not as good as the traditional classroom.

Although the artificial intelligence classroom still has some deficiencies, but it also has a great advantage, so the development of the intelligent classroom is very meaningful.

3. Prospect of Applied Intelligent classroom

3.1 Advantages of the application of intelligent class
With the application of artificial intelligence in all fields of society, we can find that artificial intelligence is a great convenience and promotes our lives, such as sweeping robots, surface-cutting robots, cooking robots, industrial robots, fire-fighting robots, The battle robot and so on began to be used in our lives and brought great convenience to our lives. The same artificial intelligence, if applied to the classroom, also brings the following advantages to our students' learning life.

(1) To provide the students with a convenient way to learn and to improve the teaching efficiency
With the development of the Internet, the way the students get the knowledge is not only on the course of the class, the online access is also a part of the knowledge source, but the information on the Internet is mostly messy, and for the young people, the regular internet is a bad habit. Some of the inappropriate content on the network will have an adverse effect on the teenagers. In the intelligent class, the problem can be solved, and the intelligence can replace the person to arrange, analyze and screen the information needed by the students, and on the one hand, the students can be prevented from accessing the internet, and on the other hand, the students are convenient to obtain the knowledge. For a teacher, because the artificial intelligence has high-speed budget capability and super-strong storage space, the teacher can avoid unnecessary work of the teacher and improve the efficiency of the work; for students, because the artificial intelligence has the interactive capability, the interesting of the classroom is greatly enriched, The motivation of the students and the motivation of learning can be improved and maintained, and the learning efficiency is improved.

(2) The virtual classroom enriches the life and knowledge of the students
Virtual classroom is a very important branch in intelligent classroom. Virtual classroom is specially used to collect and analyze students' ideas. Students can submit their own ideas and try different fields. Artificial intelligence also gives evaluation and related knowledge based on a large number of data analysis, which greatly enriches students' lives.

(3) Fully respond to students' needs
In traditional classroom, it is difficult for a teacher to respond to each student's needs, and intelligent classroom can provide students with different teaching styles and teaching methods according to different characteristics and needs of each student. And artificial intelligence can better teach students according to their aptitude, for example, according to the students' knowledge, ability level and different interests of the opposite side, to meet the different needs of the students.

(4) promoting the individualized development of students
Nowadays, personalized teaching is advocated all over the world, and the application of intelligent
classroom has expanded the ideological space of students. This kind of network intelligent education system enables students to communicate and discuss with a variety of people, and can engage in practical activities. Enrich their own learning experience, let students learn for themselves, promote the development of individuation of students.

3.2 Analysis of the Future Development of Intelligent classroom

On the basis of some available data, we can find that artificial intelligence will play a great role in our future life, and it is not difficult to predict the prospect of the application of artificial intelligence in the classroom. With the rapid development of information in human society and the wide application of the Internet, students' access to knowledge is no longer obtained from a single traditional classroom teaching, and the requirements of modern society for students are becoming more and more diverse. This requires that the present classroom teaching should be more and more intelligent, people can not always rely on a single classroom teaching mode, and classroom teaching is also the most accurate and convenient way for students to acquire knowledge. So the combination of artificial intelligence and classroom teaching mode, the intelligent classroom teaching model is undoubtedly to promote the development of teaching. Artificial intelligence has made great breakthroughs in speech recognition, natural language understanding, data mining and so on. According to some data now, artificial intelligence may develop to automatic reasoning, neural network, mechanical emotion and so on in the future.

So the application of artificial intelligence in education has great potential. The current artificial intelligence can provide students with the required learning content and massive learning resources, then the future artificial intelligence may be able to meet the inner needs of the students, solve the emotional problems of the students, and provide psychological guidance to the students. Communicating with students in real time and discovering students' difficulties in time can solve the problem that teachers can't take full care of all students and can't find students' needs in time. When the development of artificial intelligence has reached a stable stage, each student can be equipped with an artificial intelligence robot to track and understand in real time. Students' learning and living conditions, so that students anywhere at any time can have a classroom.

4. Epilogue

Tennessee State University has carried out this activity by using artificial intelligence to turn to teachers through the artificial intelligence education system and the network for help in problems that cannot be solved in the classroom. Although it is still a tentative idea to apply artificial intelligence to classroom in our country, with the development of artificial intelligence and the improvement of technology, intelligent classroom will be applied in life soon.

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