

The Collision between Tradition and Technology: The Impact and Enlightenment of AI on Chinese Education in China

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Abstract:

At present, the application of AI in the field of education has been widely discussed, but there are still shortcomings in the combination of Chinese education and AI. This paper analyzes the influence of AI on Chinese education. And found that AI can help Chinese teachers reduce repetitive work, reduce the burden of preparing lessons, and understand students' writing levels. However, improper use of AI will also lead to the weakening of teachers' functions and the abuse of students' integrity. For students, AI is not only an auxiliary tool to help students but also provides a learning platform. But it also causes problems such as solidified thinking, widening the gap between college students, and difficulty identifying wrong answers. Based on this, this paper puts forward the following suggestions. Chinese teachers should actively follow the trend and correctly use AI to improve classroom efficiency. Students should use AI reasonably, and they should not be dependent on it. Schools take incentive measures. The government should set up relevant policies in favor of AI in Chinese education.

Keywords: AI; Chinese education; innovation

1. Introduction

At present, China is increasing the use of AI. The report of the 19th National Congress of the Communist Party of China pointed out that China's economy has changed from a high-speed growth stage to a high-quality development stage, and it is in the key period of changing the development mode, optimizing the economic structure, and transforming the growth momentum, and it is in urgent need of a new generation of artificial intelligence and other major innovations to help development.

Artificial intelligence (AI) can be defined briefly as the branch of computer science that deals with the simulation of intelligent behavior in computers and their capacity to mimic, and ideally improve, human behavior [1]. However, AI has a variety of algorithmic applications in education, such as personalized learning systems to promote students' learning, automated assessment systems to support teachers in evaluating what students know, and facial recognition systems to provide insights about learners' behaviors [2].

The combination of artificial intelligence and education is the general trend. Analyzing the influence of AI on Chinese education can help people identify opportunities and risks, provide a reference for policymaking, and point out the direction for the further development of the combina-

tion of AI and education.

At present, the application of artificial intelligence in the field of education is not uncommon, and there are many related documents, but there are few materials that can be consulted in Chinese education. At present, most of the research on empowering Chinese teaching with AI in China is in the exploratory stage, and there is no systematic design, implementation, or evaluation system for the application of AI in Chinese learning. Some scholars have also studied the influence of AI on students' Chinese writing ability, but it is not comprehensive enough. However, the current national policy "AI+" strategy puts forward higher requirements for the combination of AI and Chinese, so it is necessary to study the influence of AI on Chinese education.

The purpose of this study is to explore the influence of AI on Chinese education by studying the existing literature data and materials and to help teachers and students actively adapt to the educational changes brought about by AI and bring some enlightenment. For example, the influence of AI on Chinese language and literature education in China, the coping strategies of AI development trends, the application of AI technology in Chinese teaching, and the use of AI technology to reduce students' learning burden.

2. The Influence of AI on Chinese Teachers

Teachers' mission is to teach and educate people, and Chinese teachers play a vital role in cultivating students' Chinese ability. The existing research shows that many teachers have anticipated the potential threats and possible disasters while welcoming the arrival of super artificial intelligence, and even worried that teachers' profession will be eliminated by robots or other intelligent products, resulting in strong artificial intelligence anxiety [3]. At present, primary and secondary school teachers are generally willing to use artificial intelligence to improve teaching, but the external environment support is insufficient [4]. Therefore, it is of great significance to understand the influence of AI on Chinese teachers' careers to enhance teachers' confidence and promote policy change.

2.1 Positive Influence

2.1.1 Reduce the burden of preparing lessons

Preparing lessons is a very important part of Chinese teachers' teaching activities, and the efficiency of preparing lessons can be improved through AI. For example, teachers can complete the rigid knowledge part that students need to rely on memory to complete in a course through AI, such as taking the sixth lesson Hamlet (Excerpt), which is a compulsory part of senior high school Chinese, as an example, they can complete the following work through AI. For example, teachers can make the following preparations on the premise of understanding the teaching objectives. The background of Shakespeare, the writing background of Hamlet, and the plot of Hamlet. AI can supplement the answers and contents after the initial preparation of lessons, thus enriching teachers' presupposition of students' questions, or playing the role of inspiration when students can't answer questions. However, the academic circles have not yet concluded the inquiry questions, and there are many different opinions. For example, how to understand Hamlet's classic famous sentence "To be or not to be, this is a question"? Therefore, AI can help teachers to complete the summative and relevant contents in lesson preparation, thus promoting teachers' transition from experience to research.

2.1.2 Understand the writing level of students

AI also has great advantages in Chinese writing teaching. The existing research shows that the guidance of AI on students' writing ability is mainly manifested in the following aspects: facilitating idea generation and research design, improving content and structuring, supporting literature review and synthesis, enhancing data management and analysis, supporting editing, review, and publishing

and assisting in communication, outreach, and ethical compliance [5]. Although teachers can also analyze students' writing levels from different angles, the efficiency is not so high, and they often ignore the places where the defects are not obvious. AI has a powerful function of counseling students' writing ability from multiple angles, and is good at grasping students' weakness analysis, thus helping teachers understand students' writing level.

At the same time, AI can help teachers to correct students' compositions in a targeted way, let AI give scores from different angles, reduce the burden of teachers' correction, and at the same time, give targeted explanations to students' problems [6]. Teachers' energy is limited, and they can't spend the same energy on all students, which leads to some students lacking personalized and targeted guidance, which leads to a loss of interest in writing. With the help of AI tools, students can be given targeted advice on composition, and teachers can put forward targeted suggestions and task settings according to the problems diagnosed by AI.

2.1.3 Enrich the teaching design

AI can help teachers enrich teaching design [7]. AI tools can help to complete some contents of teaching design. For example, when analyzing learners' learning situation, it can analyze students' current learning situation and their weaknesses according to AI auxiliary tools. In the design of instructional strategies, AI can provide existing excellent teaching design cases as a reference to help teachers improve teaching. In addition, teachers can use the powerful functions of AI to insert classroom activities. For example, let ChatGPT play a historical figure, talk to students, stimulate students' interest in learning, and promote students' understanding of the characters they have learned. In a word, AI can use its rich resource advantages to help teachers expand teaching content and improve teaching design.

2.2 Negative Impact

2.2.1 Integrity issues

At present, the use of AI is easy to bring trouble to teachers, such as how to ensure that students can use AI correctly. Explore-exploit dilemma model can be introduced here. The opening of AI will easily lead to the problem of students' academic integrity. Students tend to regard the tasks assigned by teachers as work rather than study and tend to use existing tools to complete the tasks. Studies have shown that the optimal solution to the exploration-exploitation trade-off depends on the life stage of the subject as well as on the environmental conditions [8]. Therefore, it is also necessary to standardize the scope of use of AI. If there is a lack of standardized use of AI,

students will seek AI help whenever they encounter difficulties, and teachers will not be able to make a correct judgment on students' academic level. At present, some institutions have made efforts to create AI tools such as Khan Academy, which can provide limited help to students.

Teachers' evaluation of students' Chinese ability often depends on exams and homework performance. However, if students use AI to complete exams and homework, teachers will not be able to evaluate students' situations and make wrong teaching designs, which will affect students' future academic performance. As a course that focuses on accumulation, the Chinese are more susceptible to this phenomenon.

2.2.2 The weakening of traditional teachers' functions

The traditional teacher's function is mainly to answer questions, impart knowledge, lead, and publicize values, while AI challenges the teacher's function and authority in these aspects. In imparting knowledge, AI has a more comprehensive knowledge reserve and analysis ability. At the level of propaganda and value guidance, students no longer rely solely on teachers to obtain values, and online media makes it more convenient to obtain information. At the level of answering questions, AI can answer students' questions without sleep, which is what teachers can't do.

When students find that what teachers can do in Chinese class can also be done through AI, they will be more inclined to use AI to study rather than follow the teacher's learning rhythm, which will lead to the weakening of teachers' authority. This phenomenon is more likely to lead to the alienation of the relationship between teachers and students. When students encounter problems, they first think of asking for help from AI instead of teachers.

However, using AI learning tools alone has a fatal flaw. AI can only advise after learners find their problems and input them. If learners can't find their problems, give AI wrong instructions, or learners have no motivation to learn and are unwilling to solve problems, the problems will never be solved. In reality, most learners can't find their problems, so teachers are needed. From this perspective, teachers have abilities that AI does not have.

3. The Influence of AI on Students

The influence of Chinese subjects on students is various, and the Chinese course is a comprehensive and practical course for learning the use of national common language and characters. The unity of instrumentality and humanism is the basic feature of the Chinese curriculum [9]. The most important part of Chinese learning is accumulation and application, and the emergence of AI is also a double-edged sword for students learning. If used properly,

students can fully play to the function of AI in sorting out existing materials and integrating resources to achieve the effect of improving students' accumulation. However, if used improperly, such as blindly using the literature overview function of ChatGPT, it will lead to a decline in application ability and have a negative impact.

3.1 Positive Influence

3.1.1 Provide a learning platform

Undoubtedly, AI has established a new learning platform and learning opportunities for students, such as providing learning materials in reading and materials in writing to help sort out knowledge points, and the new platform also means more learning space. If students encounter problems in learning, they can directly seek help from AI tools. If they have an unclear understanding of concepts, difficulties in reading, and insufficient accumulation of composition materials, they can quickly find solutions through AI tools. However, there is a strong demand for personal exploration ability, and the academic community lacks corresponding resources, which requires individuals to explore through existing knowledge. AI can also provide several different ideas for learners' reference. At the same time, distinct from traditional teaching methods, AI not only helps students master subject knowledge but also respects students' subjective differences. Therefore, AI has undoubtedly created a new learning mode.

3.1.2 Auxiliary learning tools

AI is also a good auxiliary learning tool. Accumulation is a very important part of Chinese learning. Through AI, people can make a personalized learning plan according to their situation, and help set phased goals. For example, ask ChatGPT: Please help me make a learning plan to improve my writing ability for 30 days. ChatGPT will generate a daily learning plan from four aspects: foundation, structure, content, and promotion, which is a good auxiliary tool for students who lack self-discipline.

For some complicated knowledge points, AI can also be classified and summarized to help learners remember and improve learning efficiency. In this process, AI can't directly replace learners to learn, but it undoubtedly plays an auxiliary role. At the same time, AI also has an advantage that a big teacher does not have, that is, it can learn at any time, without being limited by time and space, and can give timely feedback.

3.2 Negative Impact

3.2.1 Solidification thinking

In the process of using AI tools to get answers, students only need to ask questions, and AI can give answers with-

out thinking about the questions. Over time, it is easy for students to develop the bad habit of asking AI once they have questions, which will lead to the loss of thinking opportunities and the deterioration of thinking ability. In the process of learning Chinese, the process of learning and thinking is more important than the answer itself. Therefore, unlimited use of AI makes it easy to cause the solidification of learners' thinking. At the same time, students are easy to rely on AI, which leads to a lack of basic knowledge and the reduction of learning motivation, which is not conducive to critical thinking, generalization ability, and comprehensive thinking ability, which are all abilities Chinese teachers need to cultivate students.

On the other hand, the answers to AI questions often lack innovation, which is the integration of existing knowledge, so it is not conducive to the cultivation of students' innovative thinking, and improving language expressiveness and creativity is one of the overall goals of Chinese learning, and the cultivation of AI in this respect is relatively lacking [9].

3.2.2 Wrong answers

There will be wrong answers in AI, which often stems from problems in data quality, algorithm design, and practical application. First of all, the generative AI model relies on a lot of data learning. If there are errors or biases in the data set itself, the generated content will also be affected. Secondly, the algorithm design may also lead to errors. For teachers, some problems can be distinguished, but students do not have enough judgment when facing new knowledge, and once students learn and absorb the wrong knowledge, it is difficult to change. When students have this concern, they will be skeptical about other valuable knowledge that may be correct, which is not conducive to students' knowledge acquisition.

3.2.3 Increase the gap between students

The gap between AI and college students is mainly manifested in two aspects. First, students who are good at using AI can use AI as an important learning tool to improve their academic performance, while students who are not good at using AI learning tools can't use AI correctly to improve their academic performance. As a powerful learning aid, the final effect depends on students' knowledge absorption. Therefore, students who are better at using AI will get more learning resources and conditions.

On the other hand, due to the differences in regional development levels, some regions are unable to make full use of AI tools because of their low level of development, lack of good material conditions, and relatively conservative thinking, while some developed regions have good material conditions and open ideas, and begin to use AI in

learning in a limited way, thus aggravating the problem of inequality in Chinese education.

4. Suggestion

AI has both advantages and disadvantages for teachers and students, so it is necessary to treat this new technology dialectically and use it in Chinese teaching within a reasonable range. For teachers, the moderate use of AI can reduce the burden on teachers and force teachers to transform into research-oriented teachers. For students, the correct use of AI can give students a good learning tool. The following suggestions are given.

First, Chinese teachers should actively follow the trend and understand how to use AI correctly to improve classroom effectiveness. From traditional experienced teachers to research teachers. At the same time, teachers should keep an open mind. Treat AI correctly, regard AI as an auxiliary tool for teaching, give full play to people's advantages, and actively use AI in their teaching design and classroom to help improve students' Chinese literacy.

Second, students should use AI rationally, give full play to their subjective initiative, not rely on excessive use, pay attention to the improvement of personal language ability, pay attention to distinguishing the problems that need to be explored and explored, and take the initiative to use AI in learning.

Third, schools should take incentive measures to encourage teachers to use AI to improve teaching strategies, increase relevant investment, and provide necessary material guarantees. At the same time, it provides mature and available AI teaching tools to help teachers and students avoid personal information disclosure, privacy, and other related risks.

Fourth government should increase AI's investment in the field of Chinese education, and establish relevant policies in favor of AI's Chinese education. At the same time, people should focus on economic development and pay attention to educational equity.

5. Conclusion

In short, This paper analyzes the influence of AI in Chinese education in China, both positive and negative, and analyzes the different influences of students and teachers respectively, and puts forward relevant solutions. The application of AI in education can establish a newer and more convenient learning platform for students, provide learning opportunities, and assist students in learning. But at the same time, it will also solidify students' thinking to a certain extent. Due to the limitations of technology, some incorrect content can also have an impact on students' learning outcomes. Therefore, schools and teachers

should focus on the right guidance to help students use AI. At the same time, students themselves need to improve their self-discipline in the use of AI and give full play to their subjective initiative in learning. In the future, when people see the positive influence of the use of AI tools AI tools develop to a certain extent and the society is more inclusive. AI will shine differently in the field of Chinese education.

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