

The impact of CHAT GPT on English online courses

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Abstract: This thesis aims to explore the application of GPT (Generative Pre-training Model) in English online courses. With the continuous advancement of technology, the development of artificial intelligence offers new possibilities for online education. CHAT GPT, as a powerful natural language processing model, has shown great potential in the field of English learning. This study will evaluate the practical application effect of CHAT GPT by analyzing the use scenarios, advantages and challenges of CHAT GPT in English online courses.

1. Introduction

Online education has become an important and indispensable component in today's society. With the development of globalization, there is an increasing demand for English learning. However, the traditional online education model is often limited by the interaction between students and teachers. In this context, CHAT GPT, as a generative pre-training model, can provide students with a more personalized and interactive learning experience.

2. Principles and characteristics of CHAT GPT

CHAT GPT is a generative pre-training model developed by Open AI, an American artificial intelligence company, which trains based on large-scale pre-training data sets. [2] It uses the Transformer architecture and is trained through self-supervised tasks with strong natural language understanding and generation capabilities.

The core principle of CHAT GPT is to use large amounts of text data for pre-training, so that the model can learn the syntax, semantic and contextual information of natural language. During the pre-training phase, CHAT GPT learns the language model by predicting missing words or sentences. This unsupervised training allows the CHAT GPT to make sense of the context of the input and generate coherent, logical responses.

Its features are as follows:

1) Generative: CHAT GPT has the ability to generate natural language and generate coherent responses based on context. It can not only answer simple questions, but also perform complex verbal reasoning and expression.

2) Flexibility: CHAT GPT is an end-to-end model that can receive input text of any length and output responses accordingly. It has the ability to adapt to different fields and topics, and can respond to various types of questions.

3) Context-aware: CHAT GPT is able to understand the meaning of input based on its context and

generate responses related to it. It is able to capture grammatical, logical and semantic information in the language to produce coherent and reasonable responses.

4) Personalization: CHAT GPT can learn how to express language in different styles and tones by training diversity in the data. [3] This allows it to generate personalized responses based on the user's needs and preferences.

CHAT GPT is based on massive pre-training datasets, employs the Transformer architecture, and is trained through self-supervised tasks. [4] It has the ability to generate natural language and understand and reason about the context of the input. CHAT GPT's flexibility, context awareness, personalization and other features make it a potential tool to provide a more personalized and interactive learning experience for English online courses.

3. Application scenarios of CHAT GPT in English online courses

CHAT GPT can be applied in English online courses in the following scenarios:

Intelligent Tutoring: CHAT GPT can be used as a personalized intelligent tutoring tool to provide customized learning advice and guidance according to the needs and levels of students. Students can discuss and solve problems such as grammar correction and sentence pattern conversion through conversations with CHAT GPT.

Live Question and Answer: CHAT GPT can be used to answer students' questions in real time, not only to provide accurate answers, but also to further explain and expand students' questions. This real-time Q&A function can enhance students' sense of participation and interactivity, and improve learning results.

Language simulation dialogue: CHAT GPT can simulate real conversation scenes to help students improve their oral communication skills. Students can practice conversations with CHAT GPT to get feedback and correction and improve their oral communication skills.

4. SWOT analysis of CHAT GPT applied to English online courses

SWOT analysis is a common strategic management tool used to assess the strengths, weaknesses, opportunities, and threats of an organization, product, or project. SWOT stands for Strengths, Weaknesses, Opportunities, and Threats. By conducting a SWOT analysis, an organization, product, or project can be helped to identify key factors in its internal and external environment so that strategies and action plans can be developed accordingly. Strengths and opportunities can be used to exploit and expand, while weaknesses and threats need to be improved and countered with measures. SWOT analysis provides decision-makers with a comprehensive perspective to help them develop effective strategies and optimize resource allocation for sustainable development and success.

1) Strengths

Language understanding: CHAT GPT has strong natural language processing skills and is able to deeply understand the questions and intentions of students. Regardless of the student's use of expression, CHAT GPT can accurately identify and understand the student's needs to provide targeted help and answers.

Real-time feedback: CHAT GPT is able to respond quickly and provide immediate feedback and answers. This allows students to get immediate support when they need help or an answer, instead of waiting for a response from a human teacher. Real-time feedback can greatly improve learning efficiency and the learning experience, and help students better understand the course content.

Adaptive learning: CHAT GPT can provide personalized learning resources and advice based on a student's progress and ability level. By analyzing students' learning history, answering questions and knowledge mastery, CHAT GPT can tailor learning plans for each student, providing targeted textbooks and exercises to help students better adapt to the learning process.

These advantages make CHAT GPT a powerful auxiliary educational tool that can effectively provide personalized learning support and assistance to enhance students' learning outcomes and learning experiences.

2) Weaknesses

Lack of human teacher interaction: CHAT GPT fails to provide face-to-face communication and interaction with human teachers. Despite the CHAT GPT's powerful language understanding and instant feedback capabilities, in some learning situations, students may need more direct interaction with a human teacher to solve problems, receive further explanation and guidance.

Limited to online environments: CHAT GPT can only be used in online courses, which means students need to have a stable Internet connection and be able to access online courses. For students who do not have an Internet connection or access to an online course, the advantages and support offered by CHAT GPT are not available. This limitation may diminish the usefulness of CHAT GPT in certain learning environments.

These disadvantages suggest that CHAT GPT may not fully meet the needs of students in some ways, especially for students who prefer to interact with human instructors or do not have access to online resources. However, these disadvantages can be remedied in other ways, such as incorporating human teacher interaction or providing offline learning support to ensure that all students have access to appropriate learning support.

3) Opportunities

Increase student engagement: CHAT GPT is able to provide students with a personalized learning experience that stimulates their interest and motivation in learning. By providing customized learning resources and advice tailored to students' learning needs and interests, CHAT GPT can help students better engage in the learning process. A personalized learning experience can increase students' sense of engagement and satisfaction, and promote more proactive participation in learning.

Time and cost savings: CHAT GPT can save time and costs by providing real-time learning support and feedback to large numbers of students without additional human input. Compared with the traditional teaching model, the use of CHAT GPT can expand the coverage of educational resources and provide personalized learning support to more students, while eliminating the need for additional human resources and cost input.

These opportunities show that CHAT GPT's personalized learning experience and resource-saving features can further increase student engagement, improve learning outcomes, and provide more efficient solutions for education.

4) Threats

At present, the application of ChatGPT in various countries is also in the preliminary stage of exploration. It brings convenience and high efficiency to human production and life style. Human beings may face risks such as social unemployment and data privacy caused by the rise of generative artificial intelligence, and they are also "facing the loss of control and rebellion of 'man-made products', and even the dissolution of the entire human civilization." [1] At present, whether in the theoretical or practical circles, People have not reached a consensus on the conceptual connotation, basic characteristics and social risks of artificial intelligence language model. In the context of the initial exploration of artificial intelligence language model, human beings need to take precautions to sort out and analyze the social governance risks that may be caused by artificial intelligence language model, and put forward a forward-looking and feasible governance path, so as to ensure the safety of artificial intelligence Complete, healthy and sustainable development provides a stable guarantee.

And in terms of its application in online English courses, there are the following points to pay attention to:

Technical limitations: CHAT GPT, as an AI technology, may be limited by its algorithms and data training. Despite CHAT GPT's strong language understanding, there are still situations where Chat

GPT does not fully meet the needs of students. For example, CHAT GPT may not be able to provide accurate and exhaustive answers when dealing with complex or very specialized questions. Therefore, the expertise and experience of a human teacher is still needed in some specific areas or advanced applications.

Privacy and security concerns: Using CHAT GPT requires the collection and processing of a large number of students' personal information, such as academic records, names, ages, etc. If this information is not properly managed and protected, there are privacy disclosure and security risks. Schools and institutions must adopt effective security measures to protect students' personal information and comply with relevant privacy laws and policies to ensure the security and confidentiality of student data.

These threats demonstrate that the limitations of the technology and privacy security concerns need to be taken seriously when using CHAT GPT. To overcome technical limitations, the algorithms and data training of CHAT GPT can be continuously improved to improve its accuracy and adaptability. Meanwhile, schools and institutions should formulate strict privacy policies and security measures when using CHAT GPT to ensure the protection and security of students' personal information. Only in this way can they better cope with technical limitations and privacy security issues, and provide students with a safe and reliable learning environment.

5. Suggestions for solving their problems

In order to give full play to the advantages of CHAT GPT in English online courses and address its disadvantages, the following measures can be taken.

1) Incorporate human teacher interaction: Use CHAT GPT as an adjunctive tool to combine with human teacher interaction to provide more comprehensive learning support. Human teachers can review and supplement CHAT GPT responses to provide students with more in-depth explanations and guidance.

2) Continuous improvement and update: The algorithms and data training of CHAT GPT are continuously optimized to improve their language comprehension and response accuracy. Continuously improve the functionality and reliability of CHAT GPT by collecting user feedback and monitoring system performance to identify and fix potential problems in a timely manner.

3) Strengthen privacy and security protection: Ensure compliance with relevant laws and regulations when collecting and processing students' personal information, and adopt strict privacy protection measures. Measures such as encrypting student data storage, restricting data access, and strictly controlling data sharing can effectively protect the privacy and security of students' personal information.

4) Provide adequate user training and explanation: Provide adequate training and explanation to teachers and students using CHAT GPT to make them aware of the features, limitations and best practices of CHAT GPT. By educating users on the proper use of CHAT GPT, misunderstandings and unnecessary concerns can be reduced and its normal and effective application can be ensured.

6. Conclusion

In summary, the combination of teacher interaction, continuous improvement and updating, enhanced privacy and security protection and the provision of adequate user training and instructions can maximize the advantages of CHAT GPT in English online courses, address its disadvantages, and provide students with a better learning experience and support.

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