Application and Reflection on the E-commerce Webpage Design Training Course Based on the AIGC Technology Platform

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Abstract

With the rapid development of AIGC technology, its application in vocational education has gradually attracted attention. This paper explores the application and reflection of AIGC technology in the practical training course of e-commerce web design. Through the analysis of the current situation of e-commerce professional courses, it points out the problems such as weak student foundation and mismatch between equipment and teaching needs. At the same time, it expounds the advantages of AIGC technology in teaching. This paper proposes an innovative e-commerce practical training course system and teaching mode based on AIGC technology, emphasizing the improvement of teaching effectiveness through personalized learning paths, online and offline mixed teaching, and practical projects. Finally, this paper puts forward suggestions on stimulating students' creativity in the use of AIGC platforms, aiming to provide references for the reform of e-commerce web design practical training courses.

Keywords

AIGC technology; e-commerce web design; teaching mode innovation; vocational education.

1. Introduction

The new generation of artificial intelligence led by ChatGPT has brought human life and work into a new information environment, indicating that a deeper transformation in information acquisition is on the horizon. In response to this trend, many AIGC platforms have been launched in China, bringing convenience to people's lives and work. This presents opportunities for educational reform while also posing new challenges. In vocational education, how can the emerging major of e-commerce integrate AIGC platforms? To answer this question, this paper first clarifies the necessity of AIGC platforms, analyzes the compatibility of the course "Web Design and Development for E-commerce" with AIGC, and finally proposes specific application paths and suggestions.

2. Current Situation of E-commerce Courses

2.1. Poor Foundation of E-commerce Students

Due to the diverse sources of students in secondary vocational schools and the lack of information technology courses in some remote rural areas, either due to insufficient resources or being replaced by core subjects like Chinese, mathematics, and English, a survey of a secondary vocational school revealed that 80% of students come from rural areas and have little knowledge of computer operation, which slows down the progress of e-commerce professional courses.

2.2. Inadequate Equipment for Teaching Needs

During practical training, many students show strong hands-on skills but struggle with theoretical knowledge. They are interested in new technologies but tend to daydream during

theoretical teaching. Moreover, many students are fixated on the methods provided in textbooks, but sometimes the equipment or software versions used in class do not match those in their hands, leading to deviations in learning and slow progress. The e-commerce major was established in response to the rapid development of network technology and the need to adapt traditional business methods to the new market due to the rapid growth of international trade and fierce competition.

3. Current Situation of AIGC Technology

AIGC generates content by extracting and understanding intent information from human instructions and using its knowledge and intent information. ChatGPT is a representative platform of AIGC technology. GPT did not attract much attention until the release of the GPT-3.5 model, which sparked intense interest. The newly released GPT-4 can generate images, music, and videos and has multi-modal capabilities. OpenAI's text-to-video large model Sora can generate coherent videos based on prompts, heralding a new era of visual storytelling.

Wang Youmei, Wang Haijie, and others have summarized that ChatGPT can play the roles of intelligent enhancer, teaching assistant, personalized manager, and quality assessor in vocational education. Simon Frieder and others have demonstrated that ChatGPT and GPT-4 can serve as excellent assistants for querying mathematical facts by simulating use cases from the daily professional activities of mathematicians, and confirmed that GPT-4's mathematical proficiency is equivalent to that of an undergraduate. China has also kept up with the times, launching AIGC software platforms such as Wenxin Yiyan, Tongyi Qianwen, Yunzhisheng, and Kimi after the release of ChatGPT, which offer functions like voice recognition, natural language processing, and intelligent recommendation. In the future, with the in-depth development of artificial intelligence technology, AIGC will bring more convenience and innovation to humanity.

4. Application of AIGC Technology in E-commerce Web Design Teaching

4.1. AIGC Platform Assisted Teaching

In teaching, the AIGC technology platform can act as an assistant to teachers. When it comes to e-commerce web design, there are many theoretical knowledge points involved. AIGC can help students understand the theoretical knowledge of web design and provide different design solutions based on students' needs, enabling them to optimize the best solution. Teachers no longer focus solely on the classroom, especially in vocational education, where the formation of skills is highly valued. In a class, the ratio of students to teachers is generally 50:1, and teachers cannot solve every student's problem in one class. Therefore, the AIGC platform can play a very good role in assisting teaching and help teachers complete their teaching tasks.

4.2. AIGC Platform Collaborative Learning

In the new era, students can learn anywhere, but teachers cannot be present at any time or place. Therefore, using a platform that supports collaborative learning can cultivate students' autonomous learning ability. In the professional course of e-commerce web design and production, many HTML languages are involved. When writing, students may make mistakes in punctuation, English spelling, and other details. By using the AIGC platform, students can quickly check if there are any problems in the page code and receive the corrected code. During page design, the AIGC platform can also assist in completing the design.

4.3. AIGC Platform Optimizing Courses

Currently, AIGC is less used in secondary vocational education classrooms. However, in the course of e-commerce web design and production, many code writings are involved, and many detailed operations are required in the operation panel. For example, in Dreamweaver, code

can be written through CSS documents to adjust the design, or the design can be adjusted through the functions of the panel. For beginners, they may not be able to operate smoothly and may not remember some operations very well. Therefore, AIGC technology can be used to optimize the course. At the same time, many secondary vocational education programs do not have network conditions in computer rooms, but due to the special nature of the e-commerce major, students need to obtain information from the network platform. Therefore, computer rooms with network conditions are available.

5. Innovation of E-commerce Practical Training Course System and Teaching Mode Based on AIGC Technology

The construction path of the e-commerce web design and production course system is as follows: First, conduct research and analysis on the major, determine the training goals in this professional course, and build an effective course system. During the course development process, determine the AIGC platform to be used, carry out the teaching of web design and production courses, and based on the characteristics of the AIGC platform and the training goals, innovate the teaching activities of web design and production courses. Design practical projects based on real e-commerce scenarios, allowing students to apply AIGC technology in practice and solve practical problems. For example, use AIGC technology to generate product web page descriptions, provide intelligent responses to clients, and offer personalized recommendations. Guide students to use AIGC to analyze project tasks and improve their data-driven decision-making abilities.

In terms of teaching mode, provide personalized learning paths and recommended resources for each student through AIGC to meet the learning needs of different students. Implement offline classroom explanations and practical exercises, and achieve a blended online and offline teaching model to enhance teaching effectiveness. Divide tasks into simple, average, and difficult levels, allowing students of different levels to choose appropriate tasks according to their abilities. With the assistance of the AIGC platform, students can "jump and reach" to solve problems. At the same time, assign group tasks to cultivate students' teamwork and cooperation abilities, as well as their practical abilities.

6. Assessment Mode for AIGC Teaching

The assessment of the E-commerce Web Design and Production course should comprehensively measure students' learning and application abilities and levels, featuring multi-dimensionality and comprehensiveness. By dividing a task into a set of assessment tasks, the completion time and result quality are examined to evaluate students' operational skills. By using the AIGC platform to simplify the learning process, more emphasis is placed on the assessment of innovation capabilities, which is achieved by evaluating students' innovative thinking, innovative implementation, and the value of their achievements.

During the teaching process, students' feedback and self-assessment are emphasized. Students can reflect on and summarize their learning process and project completion, and propose improvement suggestions. At the same time, teachers can adjust teaching strategies and assessment standards based on students' performance and feedback.

7. Attempting to Use the AIGC Platform in the E-commerce Web Design and Production Course

Course Foundation: This time, Task Seven of web design and production is selected, which is about how to insert videos into web pages. In this task, previous knowledge points are included. The design of the page layout requires strong logical thinking, and many codes need to be filled

in the CSS statements, involving many detailed issues, which require observation and thinking skills.

Student Situation: Before this class, students have not been exposed to domestic AIGC platforms. In previous teaching, students were highly dependent on the teacher and would ask the teacher for help whenever they encountered problems, lacking the ability to solve problems independently.

8. Problems to be Solved in AIGC Teaching in Web Design and Production

8.1. Students' Self-discipline and Course Attractiveness

Using AIGC teaching means that students in the classroom can connect to the Internet and access various web pages. Compared to high school students of the same academic level, vocational school students have slightly weaker self-discipline. Therefore, most vocational schools will close the network in computer rooms. After opening the network, teachers cannot fully and real-time monitor students' screens, and students are prone to distraction or visiting other entertainment web pages. In vocational schools, when students encounter difficulties, they tend to ask the teacher to solve the problem directly, while they themselves just watch, get distracted, and do not think. They are also reluctant to take action.

The E-commerce Web Design and Production course is an assessment course for E-commerce major students. The E-commerce computer room they use has an open network. During normal teaching, they often log in to various entertainment websites. After using the AIGC platform, because they need to log in with their mobile phones, classroom management becomes even more difficult.

Therefore, when using the AIGC platform, teachers should pay attention to the duration and frequency of use. They should not abandon the knowledge that should be taught by the teacher and rely entirely on the help of AIGC. At the same time, they should monitor the duration of use and observe students' status to prevent them from visiting other entertainment web pages.

8.2. Awareness of Using New Tools and Solving Problems with Them

The AIGC platform is a good tool for students' autonomous learning, and students from primary and secondary schools to universities are using it. However, for vocational school students, they have little interest in learning and solving learning problems. Most students lose interest in the platform after using it for the second time. E-commerce major students have insufficient recognition of this course. In the current live-streaming environment, students think that this course is not useful and that they only need to sit in front of their phones to live-stream. They have insufficient understanding of the E-commerce major, so their interest in this course is not high. The new tool can briefly attract students' attention when using the AIGC platform, but it is not a long-term solution. In the E-commerce network classroom of vocational schools, students do not seek various tools to solve problems but are highly dependent on the teacher's help. Students' weak problem-solving awareness is a major obstacle in teaching them new learning tools.

8.3. Complication of the Teaching Process and Simplification of Tools

The AIGC platform requires login, but the computers used by students clear data after each shutdown, which means that students need to log in to the AIGC platform with their mobile phones at the beginning of each class. However, in most vocational colleges, mobile phones are strictly controlled during class time, and in many classes, students' mobile phones are collected in the teacher's office at the beginning of the first class every day. This greatly affects students' use of the AIGC platform. When using the AIGC platform for teaching, it means that students need to log in to the platform with their mobile phones; teachers then need to collect and

manage the phones before starting the teaching plan. Moreover, many students think that if the teacher can solve the problem for them, why should they use other methods? Wasting class time debating with students complicates the teaching process.

8.4. How to Stimulate Creativity under the Use of the AIGC Platform

The AIGC platform can help students solve problems and also provide them with complete solution plans. When students get used to using the AIGC platform, they may tend to ask about everything, resulting in a lack of innovation and originality in their designs and plans, making learning dull. Moreover, when applying the AIGC platform to the course of Web Design and Production for vocational e-commerce students, since the course involves two types of files, including HTML and CSS files, students often separate the contents of the two files when using the platform, leading to the fact that the code corrected by the platform cannot solve the problems they encounter. Students' application abilities also need to be strengthened. The AIGC platform is like an information collector and cannot predict the future. Therefore, innovation and creation should be left to students, while the collection of method information can be handled by the AIGC platform. If not used, perhaps our classrooms will still be unable to break away from the shadow of traditional teaching. If used, how can we innovate the course to improve the shortcomings of traditional classrooms?

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