2025 Volume 3, Issue 5
Educational Innovation Research
ISSN: 3029-1844(Print)
ISSN: 3029-1852(Online)

AIGC Empowering Teaching Methods for E-commerce Majors in Vocational Colleges

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Abstract

The application of Artificial Intelligence Generated Content (AIGC) in professional teaching can utilize AI algorithms to generate creative and high-quality content, generate relevant articles, images, audio, etc., enrich professional teaching resources, innovate and apply diverse teaching methods, and improve the quality of professional teaching. Based on this, this article first analyzes the educational value of AIGC empowering innovation and reform in e-commerce majors in vocational colleges, and finally proposes several application strategies for teaching methods, aiming to fully utilize the advantages of AIGC education, construct a new model for cultivating e-commerce professionals, and improve the quality of e-commerce talent cultivation.

Keywords

AIGC
Vocational colleges
E-commerce major; teaching method

Online publication: June 26, 2025

1. Introduction

With the application of artificial intelligence technologies such as intelligent customer service and intelligent recommendation in the e-commerce industry, professional talents are required to possess the ability to apply artificial intelligence technology and tools, which presents new challenges and opportunities for the training mode of e-commerce professionals. Currently, as an important place to cultivate students' theoretical knowledge and practical abilities, the e-commerce major in vocational colleges should apply artificial intelligence technology and AIGC to innovate the talent training mode and teaching methods of e-commerce majors, enrich the lagging e-commerce course teaching content, promote the professional talent training objectives to meet the market demand in the context of the artificial intelligence era, and strengthen the cultivation of students' professional and vocational abilities. The article combines the current situation and needs of talent cultivation in e-commerce majors in vocational colleges, and explores in depth how to use AIGC to innovate professional teaching methods, cultivate compound e-commerce talents, and improve the level of professional construction.

2. AIGC Empowering the Innovative Education Value of E-commerce Majors in Vocational Colleges

2.1. Support personalized learning for students and improve teaching accuracy

AIGC technology can utilize big data collection and mining capabilities to comprehensively analyze students'

learning processes, behaviors, etc., and use artificial intelligence algorithms to accurately analyze students' learning situations, including their personality traits, learning characteristics, learning habits, and learning needs. It generates personalized student portraits, provides personalized learning resources for students, and meets their autonomous learning needs. In the teaching activity of e-commerce case analysis, teachers apply AIGC technology to analyze students' case understanding ability and interest preferences, provide students with real e-commerce cases, and guide students' thinking in a timely manner based on their analysis process, solve their learning problems, strengthen their learning ability, and improve the accuracy of e-commerce professional teaching.

2.2. Adapt to the job demands of the new era and enhance the level of talent cultivation

In the context of the era of artificial intelligence, all positions in the e-commerce industry are influenced by artificial intelligence technology. E-commerce positions such as operations management, marketing and promotion, and customer operations can utilize artificial intelligence technology to carry out intelligent processing. The application of artificial intelligence in employment positions in the e-commerce industry is shown in **Table 1**. By analyzing the core skills of various positions in e-commerce and the support provided by artificial intelligence technology, it provides direction for the application of teaching methods in e-commerce majors. Therefore, AIGC empowers innovation in e-commerce majors to help students adapt to the job demands of the new era. By integrating artificial intelligence technology and professional courses into the curriculum and teaching reform system, the level of talent cultivation can be improved[1].

3. Exploration of AIGC Empowering Teaching Methods for E-commerce Majors in Vocational Colleges

3.1. Integrating digital teaching content and enriching professional teaching resources

Rich teaching content is the fundamental condition for promoting innovation and reform in the teaching of e-commerce majors in vocational colleges, and it is also

Table 1. Application of Artificial Intelligence in Some E-commerce Positions

Key post	Core skills	Artificial Intelligence Applications	Representing enterprises and products
Operations Management	Ability to select and plan online products E-commerce platform operation capability Ability to analyze and process operational data of online stores	Intelligent operation system, E-commerce operation robot	Shop Taoke, UiBot Robot, Alibaba Business Advisor
Marketing promotion	Ability to plan and implement online promotion plans	Generate marketing plan	Albert Technologies, Colorful Brain
	Utilize search engine marketing, keyword optimization, and traffic enhancement capabilities	Recommendation engine, Voice search, Image search	Alibaba DT PAI, Alexa, Echo, Apple Siri, and Google Home
	Good writing and advertising copywriting skills	Intelligent copywriting	Alibaba AI intelligent copywriting Jingdong Shakespeare
Customer operations	Understand customer needs and customer acquisition capabilities Effective coordination and handling ability to solve customer problems Ability to communicate and interact with customers online	Intelligent shopping guide robot, intelligent customer service robot, intelligent sales chatbot, intelligent CRM, etc	Alibaba Xiaomi, iFlytek, Wisdom Teeth UDESK, NetEase Seven Fish UNIQLOIQ, Baihui CRM
E-commerce graphic designer	Product shooting capability	Intelligent shooting robot	Alibaba's discerning eye for goods
	Store graphic and image design skills	Intelligent storefront design	Alibaba Luban
	Ability to beautify images, create visual creativity, create online advertisements, and design UI	Intelligent graphic robots, intelligent video robots	Suning wooden ox flowing horse, Alibaba Luban

the main content of AIGC empowering professional teaching. There is a characteristic of outdated teaching content in conventional e-commerce majors, which makes it difficult to adapt to the digital development speed of the e-commerce industry in the new era. Paper textbooks and teaching materials for e-commerce majors have not been timely integrated with digital industry content such as live streaming e-commerce, intelligent customer service, and AI product selection. The existing forms of teaching resources cannot meet students' needs for cutting-edge knowledge. AIGC empowers the innovation of teaching methods for e-commerce majors in vocational colleges, enabling the rapid generation and integration of digital content using AIGC technology, combined with the actual development of the e-commerce industry in the context of artificial intelligence era, integrating cutting-edge knowledge content, enriching professional teaching resources, and improving professional teaching effectiveness[2].

The curriculum system of e-commerce majors in vocational colleges is closely aligned with industry development trends, with core courses including "Graphic and Image Processing", "Live Streaming Operations", "Online Store Operations", etc. These contents are highly in line with the actual needs of the e-commerce industry in the new era. The use of AIGC in combination with the teaching objectives and main course contents of the course and the integration of digital and intelligent teaching resources can further enhance the progressiveness and scientificity of professional course teaching. Integrating AI technology into "Graphic and Image Processing" and conducting AI+graphic and image processing courses, utilizing advanced AIGC tools such as Zhimeng and Midgourcy, to promote students' mastery of traditional image processing skills and AI technology, and quickly generate high-quality visual content. Students improve the efficiency and creativity of graphic and image processing and design by learning advanced image recognition, automatic optimization, and creative generation techniques. The course of "Live Operation" integrates AI technology and carries out the main activities of AI+live operation. It applies natural language processing and intelligent creation platforms to carry out teaching activities of AI assisted content planning, content generation, and data analysis, promoting students to learn how to use multiple platforms such as ChatGPT, Deepseek, Tencent Yuanbao, and iFlytek to carry out intelligent and precise learning of live operation and content creation, and improving the interactive effect and audience stickiness of live broadcasting. The course of "Online Store Operations" integrates AIGC to carry out digital learning activities such as intelligent recommendation algorithms and user behavior analysis, enabling students to learn how to use artificial intelligence, big data technology, etc., understand content distribution strategies and marketing strategies, and improve the efficiency and accuracy of online store operations.

3.2. Innovatively applying AI tools to reconstruct the curriculum and teaching system

AIGC empowers the innovative application of teaching methods in vocational e-commerce majors, which requires the use of AI tools to connect teaching content and practice, and achieve a deep and systematic reform of teaching methods. In routine professional teaching activities, theoretical teaching and simple practical operation are the main curriculum systems, and students do not have sufficient opportunities to apply AI technology to solve complex e-commerce problems. At the same time, in the context of the new era, the e-commerce industry has widely applied AI tools, which has led to insufficient matching between conventional course teaching models and industry demands in the new era. Therefore, in the context of AIGC empowering the reform and application of teaching methods in e-commerce majors, it is necessary to fully utilize AI tools to reconstruct the curriculum teaching system, so that students can learn to use AI tools for learning and exploration, and understand the application value and key points of AI tools in the e-commerce industry, and strengthen their professional and vocational abilities[3].

Taking the course of "New Media Operation Promotion" as an example, in the lesson preparation stage, teachers use the "Jiangbang AI" learning analysis system to analyze students' learning situation based on their pre class preparation and classroom learning, and intelligently recommend and set teaching objectives. In the classroom, the "Jiangbang AI" learning analysis system learned that students' foundation in copywriting is relatively

weak, and proposed teaching objectives and directions, such as suggesting that students first improve their basic copywriting skills, and then cultivate their creative writing abilities. In the classroom teaching process, teachers use the AI courseware production tool of "Xiwo Whiteboard" to automatically generate courseware and micro lesson videos with both graphics and text. They also use "Doubao AI Assistant" to create a human-machine collaborative teaching mode, innovate blended teaching methods, and carry out a classroom form that combines offline teaching and online interaction, promoting students to engage in marketing creative discussion activities. At the same time, teachers should combine students' classroom learning performance data, such as their attention to live streaming sales techniques, and timely increase practical live streaming sales activities to enhance students' classroom learning enthusiasm and improve their learning effectiveness.

3.3. Utilizing AI virtual functions to innovate practical teaching methods

AIGC technology empowers innovation in teaching methods for vocational e-commerce majors, which requires close integration of theory and practice in e-commerce teaching, focusing on the cultivation and development of students' vocational abilities. AIGC has advantages such as virtual simulation and digital human interaction technology, which can break through the temporal and spatial limitations of e-commerce teaching, build a virtual, simulated, and repetitive practical environment, provide diverse spaces for students to carry out practical operations, overcome the shortcomings of traditional practical teaching limited by teaching venues, practical costs, and practical risks, and comprehensively enhance students' professional abilities[4].

Firstly, apply AIGC to build a virtual e-commerce environment. By applying language models such as ChatGPT, Deepseek, Tencent Yuanbao, and iFlytek, as well as key elements such as input products and information transmission characteristics, a virtual e-commerce environment can be quickly generated. Students can play different roles in the simulated environment to experience the theoretical knowledge and professional abilities of CEOs, marketing directors, and operations managers in solving practical business problems. Meanwhile, in the virtual e-commerce environment, students have different roles and tasks, such as product promotion, customer service, and order management, providing diverse spaces for students to experience different career positions and enhance their practical and problem-solving abilities.

Secondly, utilizing AI digital humans to enrich practical activities. The widespread development of AIGC technology has promoted the transformation of the e-commerce industry, especially in the context of the widespread development of live streaming e-commerce. By using AI technology to generate digital live streaming images that match the live streaming e-commerce scene, the liveliness of digital live streaming e-commerce can be enhanced, and labor costs can be reduced. In this context, AIGC empowers the innovative application of teaching methods in e-commerce majors, enabling the use of AI digital humans to carry out practical activities for live streaming sales. Through intelligent platforms such as Doubao AI and silicon-based AI (as shown in **Figure 1**), students can independently complete the entire process of live streaming training, including digital character customization, multimodal script creation, and intelligent mirror design. This includes core elements such as product selection strategy formulation, storyboard script writing, and live streaming rhythm control. At the same time, after the live broadcast is completed, students use AIGC technology to collect live broadcast data for practical review, in order to continuously improve the digital live streaming sales plan, accumulate rich practical experience, and strengthen students' professional abilities.

Figure 1. Digital Person Live Streaming Sales

4. Conclusion

Overall, the application of AIGC in e-commerce majors can utilize artificial intelligence technology and intelligent tools to generate articles, images, and audio resources that match professional teaching and learning, supporting personalized learning for students. At the same time, multiple teaching methods can be used to support the application of digital resources, effectively broadening students' knowledge and vision of e-commerce majors, adapting to the talent needs of e-commerce positions in the new era, and effectively improving the level of talent cultivation in e-commerce majors. In the teaching of e-commerce majors in vocational colleges, teachers adhere to the student-centered educational principle, integrate digital teaching resources through AIGC technology, construct a teaching system that meets the needs of new e-commerce development, and innovate the application of AI tools and technologies to reconstruct the curriculum teaching system and practical teaching methods, promote forward-looking reforms in professional teaching methods and activities, and enhance the level of professional talent cultivation.

Disclosure statement

The author declares no conflict of interest.

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