Research on the Innovative Teaching Model of Advertising Planning and Creativity Course under the Background of AI+

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Abstract. With the rapid development of artificial intelligence (AI) technology, the advertising industry is undergoing unprecedented changes. Advertising planning and creativity, as core courses in advertising education, urgently need to adapt to the teaching innovation of the AI era. This paper conducts an in-depth analysis of the current application status of AI technology in the advertising field, explores the shortcomings of the traditional teaching model of advertising planning and creativity courses, and proposes an innovative teaching model based on the AI+ background. This includes practical explorations in updating course content, innovating teaching methods, optimizing teaching resources, and building a faculty team. Additionally, this paper analyzes the challenges that may be encountered in the implementation of the innovative teaching model and proposes corresponding strategies. The aim is to provide references and insights for the teaching reform in the field of advertising education and to cultivate innovative composite talents who can adapt to the future development of the advertising industry.

Keywords: Artificial Intelligence (AI); Advertising Planning and Creativity; Course Innovation; Teaching Model.

1. Introduction

In digital age, artificial intelligence (AI) technology is profoundly transforming the operational models and development landscapes of various industries, and the advertising industry is no exception. The application of AI has brought new opportunities and challenges to advertising planning and creativity. On one hand, AI can provide more precise market insights and audience analysis for advertising planning through big data analysis and intelligent algorithms, thereby enhancing the effectiveness and efficiency of advertising delivery. On the other hand, AI-generated creative content has introduced new possibilities for advertising creativity but has also sparked discussions about the value of creativity and human creativity. Against this backdrop, the traditional teaching model of advertising planning and creativity courses can no longer meet the industry's demand for talent and must be innovated and transformed to cultivate high-quality professionals who can skillfully use AI technology for advertising planning and creativity.

2. The Current Application Status of AI in the Advertising Industry

2.1 Precision Advertising Delivery

"With the rapid development of modern Internet technology, the advent of Artificial Intelligence Generated Content (AIGC) has revolutionized people’s understanding of science and technology. AIGC technology has been widely applied across various fields, including education, where it enhances the quality of teaching and learning while accelerating the high-quality development of modern education. "[1]Through the analysis of massive amounts of user data, AI technology is capable of accurately identifying users' interests, behavioral patterns, geographical locations, and other information, thereby enabling precision advertising delivery. This type of precision targeting not only increases the click-through rate and conversion rate of advertisements but also optimizes the user experience by reducing the interference of irrelevant ads. AI algorithms can analyze users' behavioral data in real time, predict their purchasing intentions, and adjust the content and delivery strategies of based advertisements on user preferences, thus maximizing the effectiveness of

advertising. The application of AI in precision advertising delivery is mainly reflected in three areas: user profiling, real-time bidding (RTB), and personalized recommendations.

User Profiling: By collecting and analyzing various types of user data, such as browsing history, purchasing behavior, and social media activities, AI can construct detailed user profiles, providing precise target audiences for advertising.

Real-Time Bidding (RTB): AI algorithms can analyze the context of ad placements and user behavior in real time, dynamically adjusting the bidding price to ensure that ads are displayed to the most suitable users at the most appropriate moments.

Personalized Recommendations: AI can recommend personalized ad content based on users' interests and behaviors, increasing users' acceptance and engagement with the ads.

2.2 Creative Generation and Optimization

The application of AI in creative generation and optimization has brought new vitality to the advertising industry. AI is not only capable of generating various types of advertising materials, such as copy-writing, images, and videos, but also provides inspiration and optimization suggestions for advertising creativity by learning from and analyzing a large number of outstanding creative works. AI tools can quickly generate a variety of creative copy and design sketches based on the input theme and keywords, helping advertisers break through mental limitations and improve creative efficiency. In addition, AI can automatically optimize advertising creativity by analyzing users' reactions to different creative elements, adjusting the visual effects and copy content of the ads to enhance their appeal and persuasiveness. Copy-writing generation, image and video generation, and creative optimization are the three main aspects of the application of AI in creative generation and optimization.

Copy-writing Generation: AI tools can generate high-quality advertising copy based on the input theme and keywords. These tools utilize natural language processing (NLP) technology to understand the semantics and sentiment of language, thereby creating copy that meets the requirements of advertising.

Image and Video Generation: AI tools such as DALL·E and Midjourney can generate high-quality images and video materials based on textual descriptions, providing a rich array of visual resources for advertising design.

Creative Optimization: AI can automatically adjust the visual effects and copy content of advertisements by analyzing users' reactions to them, in order to enhance the appeal and persuasiveness of the ads.

2.3 Effectiveness Monitoring and Evaluation

The application of AI in advertising effectiveness monitoring and evaluation provides advertisers with more comprehensive and precise feedback. AI can monitor the effectiveness of ad deliveries in real time, analyze users' reactions and behavioral data towards ads, and thereby offer timely and accurate assessments and feedback to advertisers. Based on this data, advertisers can adjust their ad strategies and optimize their delivery plans in a timely manner to achieve better advertising results. The main applications of AI in effectiveness monitoring and evaluation are in real-time data analysis, user behavior analysis, and effectiveness prediction.

Real-Time Data Analysis: AI can analyze various data points during the ad delivery process in real time, such as click-through rates (CTR), conversion rates, and dwell time, providing advertisers with immediate feedback.

User Behavior Analysis: AI can analyze users' interests and preferences towards ads based on their behavioral data, offering a basis for ad optimization.

Effectiveness Prediction: AI can predict the effectiveness of ad deliveries by analyzing historical and real-time data, helping advertisers adjust their strategies in advance. "The integration of AI techniques not only refines the teaching process but also expands the range of instructional strategies and enhances the achievement of educational goals."[2]

3. The Shortcomings of the Traditional Advertising Planning and Creativity Course Teaching Model

3.1 The Course Content is Out Date

Traditional advertising planning and creativity courses mainly focus on conventional advertising theories and practical case studies, with limited coverage of the application of AI technology in the advertising field. This outdated content makes it difficult for students to be exposed to the latest technologies and trends in the industry during their learning process, failing to meet the future advertising industry's requirements for AI application skills.

With the widespread application of AI technology in the advertising field, it is essential for advertising planning and creativity courses to update their content in a timely manner by incorporating basic knowledge and application case studies of AI technology. This will help cultivate students' ability to apply AI in their future careers.

3.2 The Teaching Methods are Monotonous.

Traditional teaching methods are primarily based on teacher lectures, resulting in low student participation and insufficient practical opportunities. Advertising planning and creativity is a highly practical course, where students need to engage in extensive practice to develop their planning and creative abilities. However, the traditional teaching model fails to provide students with adequate practical platforms and resources, making it difficult to cultivate their innovative thinking and practical skills.

Under these circumstances, there is a need to innovate teaching methods by introducing project-based learning, virtual simulation, and blended learning approaches. These methods can enhance student participation and practical skills.

3.3 The Teaching Resources are in Short Supply

In the AI era, advertising planning and creativity courses require substantial support from teaching resources, such as AI tools, case libraries, and datasets. However, many universities currently have relatively insufficient resource allocation in these areas, which prevents students from fully engaging with and utilizing AI technologies. This, in turn, affects the effectiveness and quality of teaching.

To meet the teaching demands in the context of AI+, universities need to increase their investment in teaching resources. This includes establishing AI laboratories, developing case libraries, and creating datasets to provide students with a rich array of learning resources.

3.4 The Teaching Staff's Capabilities are Inadequate

The rapid development of AI technology has set higher requirements for advertising professionals, especially for teachers in the field. Teachers are expected to possess both the ability to apply AI technology and the skills to effectively integrate it into their teaching. However, currently, some advertising teachers have limited understanding and application capabilities in AI technology, which makes it difficult for them to effectively incorporate AI into their teaching. This, in turn, affects the implementation of innovative teaching models in the courses. To enhance teachers' ability to apply AI, universities need to strengthen teacher training programs, bring in AI technology experts, and build a high-quality faculty team.

4. Practical Exploration of Innovative Teaching Models for Advertising Planning and Creativity Courses in the Era of AI+

4.1 Update Course Content

Add a basic knowledge module on AI technology. Integrate a foundational module on AI technology into the course, covering basic concepts, principles, development history, and application scenarios in the advertising field. Through this module, students will gain a preliminary understanding and awareness of AI technology, laying the groundwork for subsequent learning. For example, a course titled "Introduction to Artificial Intelligence" could be offered to introduce the basic principles and application areas of AI.

Integrate AI application case studies into the curriculum. Incorporate case studies of AI applications in advertising planning and creativity into the course teaching. By analyzing real-world examples, students can understand how AI technology has transformed the traditional advertising operation models and creative expressions. For instance, case studies of AI-generated creative advertisements and AI-driven precise ad targeting can be analyzed to guide students in thinking about the advantages and limitations of AI technology in advertising planning and creativity.

Establish practice projects that integrate AI with advertising. Design some advertising planning and creativity practice projects related to AI, allowing students to use AI tools and technologies for advertising planning and creativity in practice. For example, students can use AI design tools to generate creative advertising materials, or optimize advertising placement strategies through AI data analysis platforms. This helps to cultivate students' ability to apply AI and their practical skills.

4.2 Innovative Teaching Methods

Adopt project-based teaching methods to integrate course content with real advertising projects. Students can learn and apply AI technology while completing these projects. Teachers can design advertising projects of varying difficulty and types based on the course objectives and students' capabilities. This approach encourages students to engage in self-directed learning and collaborative inquiry, thereby enhancing their practical skills and innovative thinking. For example, a project on AI-based advertising creativity generation can be designed, allowing students to practice the entire process from market research and creative conceptualization to the final production and placement of the advertisement.

Introduce virtual simulation systems to replicate the entire process of advertising planning and creativity, including market research, creative conceptualization, ad production, and monitoring of ad placements. Through these virtual simulation systems, students can conduct practical operations in a virtual environment and accumulate practical experience. At the same time, strengthen cooperation with advertising companies to carry out joint teaching projects between schools and enterprises. Allow students to participate in real advertising projects of companies to understand industry demands and market dynamics, thereby enhancing their practical abilities and employ ability. For example, collaborate with advertising agencies to involve students in actual advertising planning projects and apply AI technology in real work situations.

Integrate the advantages of online and offline teaching through a blended learning model. The online component can provide basic knowledge explanations of AI technology, case analysis videos, and online quizzes via online course platforms for students' self-directed learning. The offline part focuses on classroom teaching, practical guidance, and group discussions. Teachers can guide students' learning progress and answer questions to facilitate their understanding and application of knowledge. For example, publish video tutorials on AI technology on an online course platform. Students can study independently before class, and teachers can focus on key explanations and Q&A sessions during class.

4.3 Optimization of Teaching Resources

Provide students with some commonly used AI tools and platforms, such as AI design tools (like Mid-journey, DALL·E, etc.), data analysis platforms (like Google Analytics, Baidu Statistics, etc.), and advertising placement platforms (like Ten-cent Ads, Byte-dance Engine, etc.). Through these tools and platforms, students can personally experience the application of AI technology in advertising planning and creativity, thereby enhancing their familiarity and application skills in AI technology. For example, students can be guided in class to use Mid-journey to generate creative images, or analyze advertising effectiveness through Google Analytic.

Collect and organize a large number of cases on the application of AI in the advertising field to establish a case library for students to learn from and reference. At the same time, gather relevant advertising datasets, such as user behavior data and advertising placement data, to provide data support for students' data analysis and practical projects. Teachers can select appropriate cases and data from the case library and datasets according to teaching needs to guide students in analysis and research. For example, establish a case library that includes AI advertising creativity cases and user behavior data for students to use in practical projects.

Utilize AI technology to analyze students' learning behaviors and proficiency levels, and provide personalized learning resources and learning pathways for students. For example, based on students' learning progress and interests, recommend relevant AI technology tutorials, case studies, practical projects, and so on. This approach caters to the diverse learning needs of students, thereby enhancing their learning outcomes and motivation. For instance, learning management systems (LMS) can be used to record students' learning behaviors, and AI algorithms can then recommend suitable learning resources for them.

4.4 Faculty Development

Regularly organize AI technology training and further education activities for advertising faculty members. Invite experts and scholars in the field of AI to conduct courses, helping teachers enhance their ability to apply AI technology and improve their teaching skills. At the same time, encourage teachers to participate in industry seminars and academic exchanges to stay updated with the latest industry trends and developments, thereby broadening their horizons and thinking. For example, a specialized training session on "The Application of AI in Advertising" can be organized, with industry experts providing instruction.

Strengthen cooperation with advertising companies by inviting corporate experts to serve as adjunct faculty members, participating in course instruction and practical guidance. These corporate experts can bring the latest AI application technologies and practical experience from the industry into the classroom, providing students with more realistic and practical guidance. In addition, universities can also introduce compound talents who are proficient in both advertising and AI technology through talent recruitment, to enrich the teaching staff and enhance the level of instruction. For example, collaborate with advertising agencies to invite their technical directors or creative directors to serve as adjunct professors.

Encourage advertising faculty members to engage in team collaboration and teaching research, jointly exploring the teaching reform and innovation of advertising planning and creativity courses in the context of AI+. Through teamwork, teachers can share teaching resources and experiences, collaboratively address issues encountered in the teaching process, and enhance the quality and efficiency of teaching. Additionally, teachers can undertake relevant teaching research projects to conduct in-depth studies on the application of AI in advertising education, providing theoretical support and practical guidance for the implementation of innovative teaching models in the curriculum. For example, organize a faculty team to conduct a research project titled "Research on AI-Driven Advertising Creativity Teaching Methods."AIGC technology aids in implementing personalized teaching, enhancing students' interest and engagement in learning. However, attention must be paid to the integration of technology with educational content, as well as the evolving role and skills of educators.[3]

5. Challenges and Coping Strategies in the Implementation of Innovative Teaching Models for Advertising Planning and Creativity Courses in the Era of AI+

5.1 Technological Updates and Cost Investment

The rapid development of AI technology and the continuous emergence of new tools and platforms require schools to constantly update their teaching equipment and software to meet the needs of education. However, these updates demand significant financial investment, which may pose difficulties for some colleges and universities. Strategies to address this challenge include: on the one hand, schools can raise funds through cooperation with enterprises and application for research projects to solve the issues of equipment updates and software purchases; on the other hand, teachers can guide students to use some free open-source AI tools and platforms to reduce teaching costs. For example, by collaborating with AI technology companies to seek technical support and equipment donations, and utilizing open-source tools such as Open AI open-source models for teaching.

5.2 Differences in Student Abilities and Adaptability

Students vary in their acceptance and application of AI technology, with some students adapting more slowly to new technologies, which can impact the effectiveness of teaching. To address this, teachers need to provide tiered instructional guidance based on students' situations. For example, for students with weaker foundations, teachers can offer more basic tutoring and practice opportunities; for those with stronger foundations, teachers can assign more challenging practical projects to encourage innovation and exploration. Additionally, teachers can employ group cooperative learning methods, allowing students of different ability levels to learn from and assist each other, thereby enhancing learning outcomes and adaptability. For instance, students can be divided into groups, each comprising students of different ability levels, to collaboratively complete AI-driven advertising planning projects.

5.3 Data Ethics and Privacy Issues

During the application of AI, the collection, use, and storage of data involve ethical and privacy issues. In the teaching process, teachers need to strengthen students' data ethics education, guiding them to comply with relevant laws and regulations and respect user privacy when using AI technologies. For example, when conducting data analysis and practical projects, teachers can instruct students on how to legally and compliantly collect and use data, avoiding issues such as data breaches and misuse. At the same time, schools can establish relevant data usage guidelines and privacy protection policies to ensure data security in teaching activities.

6. Summary

In the era of AI+, the innovative teaching model for advertising planning and creativity courses is of great significance for cultivating innovative compound talents who can adapt to the future development of the advertising industry. By updating course content, innovating teaching methods, optimizing teaching resources, and building a faculty team, the model can effectively enhance students' ability to apply AI technology and their skills in advertising planning and creativity. However, during the implementation process, several challenges are encountered, such as technological updates and cost investment, differences in student abilities and adaptability, and data ethics and privacy issues. To address these challenges, corresponding coping strategies need to be adopted to ensure the smooth implementation of the innovative teaching model. In the future, with the continuous development of AI technology and the ongoing transformation of the advertising industry, the teaching reform of advertising planning and creativity courses will need to keep

exploring and innovating to cultivate more high-quality professionals who can lead the industry's development.

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References

[1] Xiao Tong, The Effective Application of AIGC Technology in Visual Marketing Design Course Teaching[J]. Contemporary Education Frontiers. Volume 2 , Issue 2 . 2024. PP 48-53.

[2] Haijun Xiong; Qi Zhang; Xiaohui Wang; Zhiyuan Xie Empowerment of Programming Capability Development through AIGC[J]. Frontiers in Educational Research. Volume 7 , Issue 11 . 2024.

[3] Xiaowen He; Yunxia ZhangTeaching Reform of the"Principles of Management"Course in the Context of Artificial Intelligence[J]. Higher Education and Practice. Volume 1 , Issue 6 . 2024.