

Reforming Advertising Education in Application-Oriented Undergraduate Programs in the AI Era Based on a Student Survey

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DOI: 10.65285/RET.V2I3.004

Abstract: Artificial intelligence is increasingly embedded in advertising content production, user analysis, media placement, and campaign evaluation, reshaping the capabilities expected of advertising graduates. This study examines implications for advertising education through a survey of 224 university students with advertising-related learning experience. The questionnaire covered AI tool use, perceptions of industry value, course application, ethical concerns, and employment responses. Results show that 79.02% of respondents used AI at least several times per week and 91.07% had used AI in coursework. Familiarity was higher for large language models and image-generation tools than for data-analysis tools, while course use remained concentrated in copywriting and academic writing. Students valued AI for production efficiency, user analysis, and targeting, but also expressed concern about copyright, data security, false information, and privacy. The findings support a shift from isolated tool training toward an integrated capability chain linking creative work, data analysis, media placement, ethical judgment, and process-based assessment.

Key words: Artificial intelligence, Advertising education, AIGC, Human-AI collaboration, Talent development

Introduction

Artificial intelligence (AI), particularly generative AI and AI-generated content (AIGC), is changing advertising production and distribution. Chinese studies describe AI as affecting advertising operators, message content, and media placement, while AIGC enables rapid generation and iteration of text, images, audio, and video ^{[1], [2]}.

International marketing education research argues that generative AI can expand learning opportunities but also requires educators to reconsider the knowledge, skills, and norms needed in AI-enabled professional settings ^[3]. Chinese research similarly identifies gaps between technological change and curriculum renewal, practice environments, and interdisciplinary capability development ^[4]. For application-oriented undergraduate education, the key issue is therefore how AI can be translated into professional capabilities rather than merely added as software training. AI-enabled advertising also raises privacy, data, copyright, and responsibility issues that cannot be separated from technical instruction ^[7].

Against this background, this study surveyed 224 university students who had taken advertising-related courses or had relevant backgrounds in communication, design, management, or related fields. It asks: RQ1, what patterns characterize students' AI use and perceptions of AI's value in advertising; RQ2, how is AI used in coursework and how do course offerings compare with learning needs; and RQ3, how should application-oriented undergraduate advertising education respond to changes in professional capability, ethical risk, and employment expectations?

2. RELATED WORK

2.1 Artificial Intelligence and the Transformation of Advertising and Marketing Education

Existing research increasingly treats AI integration as a curriculum and capability issue rather than a narrow software issue. Chinese studies emphasize AIGC-related talent development, industry demand, and the need to connect curriculum content, practice environments, faculty capability, and assessment ^{[1], [8], [9]}.

International marketing and advertising education shows a similar shift. Guha et al. discuss how generative AI can support learning and professional preparation while requiring pedagogical safeguards ^[3]. Mehmet et al., drawing on curriculum analysis and interviews with 26 industry practitioners, argue that GenAI-related education should extend beyond content generation to research, strategy, creativity, and ethics ^[10].

2.2 Student Use, Course Practice, and Ethical Concerns

The present study therefore examines five connected dimensions—tool use, perceived industry value, course practice, ethical concerns, and employment responses—while treating high-frequency use as evidence of exposure rather than advanced professional capability.

3. RESEARCH DESIGN

3.1 Participants and Questionnaire

The study targeted university students who had taken advertising-related courses or had relevant learning backgrounds in communication, literature, management, art and design, engineering, or related fields. Respondents with no advertising-related coursework were excluded. A total of 224 valid responses were obtained.

The questionnaire contained five parts: background information, AI cognition and use, course experience, AI-related ethical cognition, and employment attitudes and strategies. Single-choice, multiple-choice, and matrix rating items were analyzed descriptively using frequencies, percentages, and mean scores. The relevant scales yielded Cronbach's alpha = 0.707; factor loadings ranged from 0.52 to 0.85; KMO = 0.559; and Bartlett's test was significant. Because the KMO value is modest, no complex latent-variable inference is attempted.

Table 1. SAMPLE CHARACTERISTICS (N = 224)

Category	n (%)
Communication-related majors	50 (22.32)
Literature + advertising coursework	69 (30.80)
Management majors	50 (22.32)
Art and design majors	11 (4.91)
Engineering + advertising coursework	24 (10.71)
Other majors	20 (8.93)
Ordinary undergraduate institutions	147 (65.63)
Junior colleges	21 (9.38)
Double First-Class universities*	30 (13.39)
Former Project 211 universities	18 (8.04)
Former Project 985 universities	8 (3.57)

* Excluding former Project 985 and Project 211 institutions.

3.2 Data Analysis and Research Boundary

The 224 responses describe patterns in this sample rather than population-level characteristics of advertising education across China. Ordinary undergraduate institutions account for nearly two thirds of respondents, and the questionnaire did not classify institutions as application-oriented versus non-application-oriented. Application-oriented undergraduate advertising education is therefore treated as the practical context for interpreting the findings, not as the sampling frame.

4. RESULTS AND DISCUSSION

4.1 Frequent AI Use with Uneven Professional Capabilities

AI use was routine for most respondents: 24.11% used AI almost every day and 54.91% several times per week, so 79.02% used AI at least several times per week. Familiarity differed by tool type. Large language models had the highest mean score (3.79/5), followed by image-generation AI (3.67) and data-analysis AI (3.22). Student capability was therefore concentrated in text and visual generation rather than data-oriented applications.

The gap between perceived industry functions and actual tool familiarity suggests that frequent use should not be equated with data literacy or strategic AI competence. Industry-oriented research likewise emphasizes combinations of creative, operational, data, and AIGC capabilities^[8]. Technology-adoption research provides a useful comparison: Gulati et al. examine students' intentions to adopt ChatGPT^[13], whereas the present survey separates frequency of use, familiarity, and perceived advertising functions.

4.2 Widespread Course Use but a Strong Content-Generation Bias

AI had already entered formal course practice: 91.07% reported using AI in coursework. Copywriting was the most common use (68.75%), followed by academic writing (58.93%), graphic design (38.39%), media placement (36.61%), video production including scripts and storyboards (36.16%), and user-profile analysis (29.91%).

By contrast, desired learning content was broader: AI advertising copywriting (61.61%), human-AI collaborative creativity (54.91%), consumer data analysis (54.02%), programmatic advertising (37.50%), and AI ethics and regulation (30.36%).

Acceptance was high: 62.95% regarded AI use in coursework as very useful and 24.11% reported significant improvement, for a combined 87.06%; the mean rating was 4.09/5. The main issue is therefore not whether students accept AI, but whether courses can transform spontaneous use into structured professional learning. Morgan et al. provide a collaboration model for advertising assignments^[5], while Leung links AI-supported consumer intelligence with interviews and a real campaign project^[11]. Alsuwaida and Alsamiri similarly show that AI activities can be mapped deliberately onto course objectives rather than added informally^[12].

4.3 Technology Acceptance Coexists with Ethical Concern

Positive views of AI coexisted with ethical concern. Copyright infringement was selected by 67.41%, data security by 56.70%, false information by 56.25%, and privacy infringement by 55.80%. Personalized distribution leading to social stratification and viral dissemination affecting judgment were selected by 25.00% and 23.66%, respectively; only 0.89% selected the view that AI advertising had no problem.

Advertising ethics research similarly emphasizes privacy, data, and responsibility issues^{[7], [14]}. Advertising education should therefore translate general risk awareness into concrete judgments about copyright, consent, data boundaries, verification, disclosure, and misleading content rather than treating ethics as an abstract add-on to technical instruction.

4.4 Employment Expectations Favor Capability Upgrading

Most respondents expected AI to affect advertising employment: 57.14% anticipated a major change, 23.21% a partial adjustment, and 8.48% complete disruption, while 9.38% expected limited impact and 1.79% were uncertain. The mean scores for AI replacing copywriting-related jobs and traditional skills becoming obsolete were 3.61 and 3.46,

respectively, compared with 4.20 for the need to continue learning new technologies. The two leading strategies—learning AI and strengthening creativity—indicate capability upgrading rather than exit from advertising, consistent with calls to combine technical proficiency with research, strategy, creativity, and ethics^[10]. Similar tensions between GenAI’s usefulness and concerns about originality and professional futures were reported by Wagler^[6].

5.IMPLICATIONS FOR ADVERTISING EDUCATION

5.1 Build a Full-Process Capability Chain

The first implication is to move from isolated generative-tool training toward a full advertising capability chain. The survey shows strong familiarity with language and image-generation tools but weaker data-analysis familiarity, while students simultaneously identify user analysis and targeting as important industry functions. Curriculum design should therefore connect consumer insight, strategy, creative generation, content production, media placement, and evaluation rather than treating AI as a stand-alone content-generation topic.

5.2 Use Project-Based Human-AI Collaboration

The second implication is to organize AI use around complete professional tasks. Although 91.07% had used AI in coursework, the strongest uses remained copywriting and academic writing. A real or simulated brand project can require students to investigate markets, analyze users, develop strategy, generate and revise creative work, design media plans, evaluate results, and document AI use at each stage. Morgan et al. emphasize Student-AI Collaboration^[5], Leung combines AI-supported consumer intelligence with interviews and client work^[11], and Chinese practice-oriented reform stresses authentic projects and industry collaboration^[15].

5.3 Integrate Process Assessment and Ethical Judgment

When AI can rapidly produce text, images, and initial plans, final products alone provide limited evidence of student understanding. Assessment should therefore address problem definition, tool selection, human revision, data interpretation, and ethical judgment, including how AI outputs were used, checked, or modified. Ethical issues should be embedded in professional tasks, including copyright in AIGC production, consent and anonymization in consumer analysis, and disclosure of potentially misleading content. This directly responds to students’ concerns about copyright, data security, false information, and privacy.

6.CONCLUSION

This study used 224 valid student questionnaires to examine AI use, advertising-related course practice, ethical concerns, and employment responses. AI use was frequent, but familiarity and course use were concentrated in large language models, image generation, copywriting, and academic writing, while data-analysis and other workflow-oriented applications were less developed. Students valued AI for production, user analysis, and targeting while also expressing concern about copyright, data security, false information, and privacy. The findings support a shift from isolated tool introduction toward professional capability reconstruction through integrated creative, data, media, ethical, and process-based training. The study is limited by its sample size, the concentration of respondents in ordinary undergraduate institutions, and the absence of teacher and practitioner respondents; therefore, the findings should be interpreted as descriptive evidence from this sample, and future research can expand the sample and compare AI-supported teaching models across institution types.

ACKNOWLEDGMENTS

This work was supported by the China Association of Higher Education, 2024 Annual Higher Education Scientific Research Planning Project (Grant No. 24GG0402).

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