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AI-Enabled Teaching Models for Traditional Chinese Calligraphy: Balancing Technical Inheritance and Creative Development in Higher Education

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Abstract

The rapid iteration and practical application of Generative Artificial Intelligence (AIGC) have reconstructed the teaching ecology and creative practice logic of higher calligraphy education, posing new challenges to the cultivation of students' traditional calligraphy skills and creative development. As the core training objective of higher calligraphy education, the balance between technical inheritance and creative development is reflected in students' comprehensive abilities to accurately master traditional techniques, independently express aesthetics, conduct practical exploration, and achieve innovative breakthroughs in calligraphy learning. Taking higher calligraphy education as the research field, this study combines constructivist learning theory, cultural heritage education theory, and educational technology integration theory to analyze the core connotation and constituent dimensions of technical inheritance and creative development in higher calligraphy teaching in the AI era, explore the dual impacts of AI technology on calligraphy teaching, and construct a targeted teaching model and implementation strategies. This research aims to fill the research gap in the balanced cultivation of technology and creativity in higher calligraphy teaching under the background of the integration of AI and traditional art education, and provide theoretical references and practical paths for the teaching reform and talent training of higher calligraphy education.

Keywords

Artificial Intelligence; Higher Calligraphy Education; Technical Inheritance; Creative Development; Teaching Model

1. Introduction

1.1. AI Reconstructs the Ecology of Higher Calligraphy Education

As a core carrier of traditional Chinese culture and a category of visual art, calligraphy undertakes the dual mission of technical inheritance and cultural communication in higher education, representing a typical field of deep integration of "traditional craftsmanship and cultural connotation". The emergence of AIGC tools such as Midjourney, AI calligraphy copying systems, and intelligent writing recognition has broken the technical barriers and time-space limitations of traditional calligraphy teaching, enabling students to realize digital analysis of classic calligraphy works, precise simulation of brush stroke trajectories, and rapid presentation of creative expression with the help of intelligent tools. In higher calligraphy education, artificial intelligence has promoted a comprehensive innovation of teaching models and practical methods: transforming from the traditional "teacher demonstration - student copying" model to a modern model of "intelligent assistance - independent inquiry", and upgrading from "single technical training" to comprehensive training integrating "technical inheritance and creative integration". However, the convenience of technology has also brought new educational dilemmas: some students over-rely on AI-generated brush stroke demonstrations and creative templates, weakening in-depth study and independent practice of traditional calligraphy works, resulting in problems such as "rigid technical imitation" and "homogenized creative expression", and the risk of imbalance between technical inheritance and creative development has become increasingly prominent.

1.2. The Balance Between Technology and Creativity is the Core Literacy of Higher Calligraphy Talents

The dynamic balance between technical inheritance and creative development is the core characteristic that distinguishes higher calligraphy talents from mere "technical operators", and also the key ability for students to adapt to the needs of cultural inheritance in the new era. For students majoring in calligraphy in higher education, this balanced ability is not a simple combination of "technique + creativity", but a comprehensive literacy integrating proficiency in traditional techniques, understanding of cultural connotations, aesthetic judgment, and cross-border innovation capabilities, in line with the academic and innovative characteristics of higher education. In the age of artificial intelligence, the demand for calligraphy talents in the cultural industry has shifted from "specialized technical proficiency" to comprehensive demand of "inheritance + innovation". It not only requires students to firmly master the core techniques of traditional calligraphy styles such as seal script, clerical script, regular script, running script, and cursive script, but also to possess creative abilities to integrate traditional calligraphy elements with modern design, digital media and other fields. Therefore, the balance between technology and creativity has become the core training objective of higher calligraphy education.

1.3. Research Gaps and Significance

Currently, domestic and foreign researches on AI and art education mainly focus on technology application and teaching model innovation; researches on calligraphy education mostly concentrate on the optimization of traditional teaching methods and interpretation of cultural values, with few systematic studies on the balance between technical inheritance and creative development in higher calligraphy education under the background of artificial intelligence. Higher calligraphy education possesses both the inheritance of traditional craftsmanship and the innovation of modern education, and the balanced cultivation of technology and creativity cannot copy the models of general art education or vocational skill education. Based on this, this study constructs a teaching model for the balanced development of technology and creativity based on the context of higher education, combined with the characteristics of AI technology and calligraphy as a discipline. It not only fills the theoretical gap in related researches but also provides specific guidance for the teaching practice of higher calligraphy education, helping to cultivate compound calligraphy talents adapted to the needs of the AI era.

2. Theoretical Foundations and Definition of Core Concepts

2.1. Theoretical Foundations

2.1.1. Constructivist Learning Theory

Constructivist learning theory holds that learning is a process in which learners construct knowledge systems through active inquiry and interactive communication based on their own experiences, emphasizing the subjectivity of learners and the initiative of learning. In higher calligraphy education in the age of artificial intelligence, students are no longer passive learners who simply accept teachers' technical demonstrations, but subjects who actively explore brush stroke rules, analyze classic works, and construct personal styles with the help of AI tools. This theory provides core support for the teaching model of balanced technology and creativity, that is, creating personalized learning scenarios through AI tools to guide students to achieve the organic unity of technical inheritance and creative development in independent inquiry.

2.1.2. Cultural Heritage Education Theory

Cultural heritage education theory advocates that the core of traditional art education is not only the inheritance of craftsmanship but also the transmission of cultural genes and the cultivation of cultural identity. As an important carrier of traditional culture, calligraphy contains the aesthetic spirit, philosophical thinking, and humanistic values of specific eras behind its techniques. This theory emphasizes that the application of AI technology in calligraphy teaching should take cultural inheritance as the core, avoiding mere instrumental application of technology. It

realizes the deep integration of technical training and cultural interpretation through digital means, ensuring that students understand the cultural connotations behind the techniques while mastering them, thus laying a cultural foundation for creative development.

2.1.3. Educational Technology Integration Theory

Educational technology integration theory argues that technology should serve as an auxiliary tool for teaching objectives, achieving deep integration with the teaching process rather than dominating teaching. In higher calligraphy education, the application of AI technology should follow the "adaptability principle", designing functional modules for the core links of calligraphy teaching (copying, creation, evaluation). It not only solves problems such as inaccurate technical feedback and unintuitive cultural interpretation in traditional teaching through intelligent tools but also avoids the inhibition of creativity by technology through teacher guidance, realizing the coordinated advancement of technical empowerment and creative cultivation.

2.2. Definition of Core Concepts

2.2.1. Generative Artificial Intelligence

Generative artificial intelligence in this study specifically refers to AI technology systems applied in the field of calligraphy education based on large language models and deep learning algorithms, including intelligent writing recognition, digital analysis of classic calligraphy works, and AI-assisted creation tools. Its core characteristics are interactivity, visualization, and auxiliary nature. In teaching, it assumes the role of "technical demonstration assistant", "cultural interpretation tool", and "creative expansion platform", rather than replacing students' independent practice and creative conception.

2.2.2. Higher Calligraphy Education

Higher calligraphy education refers to professional calligraphy education carried out at the undergraduate level and above, covering directions such as calligraphy studies, calligraphy and seal carving, and calligraphy education. Its core characteristics include the professionalism of traditional craft inheritance, the academic nature of cultural research, and the innovation of modern education. It cultivates compound talents with solid calligraphy techniques, profound cultural literacy, and innovative practical abilities, distinguishing itself from vocational calligraphy education focusing on skill training and basic calligraphy education focusing on popularization.

2.2.3. The Balance Between Technical Inheritance and Creative Development

Combined with the characteristics of the age of artificial intelligence and the needs

of higher calligraphy education, this study defines it as a state of ability where students, on the basis of firmly mastering traditional calligraphy techniques (brushwork, structure, composition) and cultural connotations, realize precise inheritance and personalized application of techniques with the help of AI tools, while maintaining independent aesthetic judgment and innovative thinking. They are capable of achieving stylistic breakthroughs within traditional frameworks or conducting cross-border creative expression. The core lies in "inheriting without rigidity and innovating without losing roots", which not only adheres to the core characteristics of calligraphy art but also adapts to the innovative needs of the times.

3. Core Dimensions of the Balance Between Technical Inheritance and Creative Development in Higher Calligraphy Education

Based on the theoretical foundations and definition of core concepts, combined with the academic and innovative characteristics of higher calligraphy education and the dual impacts of AI technology, this study divides the balanced ability between technical inheritance and creative development into four interrelated and progressive core dimensions, which together form a complete ability system.

3.1. Technical Proficiency Dimension: The Basic Premise of Balance

Technical proficiency is the foundation for the balance between technical inheritance and creative development, referring to students' ability to accurately master and proficiently apply the core techniques of traditional calligraphy. This dimension mainly includes: brush control ability (precise application of techniques such as lifting, pressing, pausing, turning, and twisting), structure grasp ability (reasonable handling of internal relationships such as density, slant, and echo of characters), composition layout ability (coordinated control of overall layout, line flow, and ink color changes of works), and calligraphy copying ability (ability to restore styles and absorb techniques of classic works). In the AI era, technical proficiency is no longer mere "manual proficiency", but also includes the ability to use intelligent writing recognition tools for self-correction of techniques and deeply understand technical principles through digital analysis of calligraphy works, realizing efficient inheritance of "traditional training + intelligent assistance".

3.2. Cultural Understanding Dimension: The Connotative Support of Balance

Cultural understanding is the core support for the balance between technology and creativity, referring to students' ability to deeply grasp and flexibly apply the cultural connotations behind calligraphy. This dimension mainly includes: cognitive ability of calligraphy history (understanding of the evolution of calligraphy styles

and characteristics of representative calligraphers in different eras), interpretation ability of cultural connotations (understanding of the creative background, aesthetic spirit, and philosophical thinking of classic works), basic knowledge of philology (mastery of the evolution of form, sound, and meaning of Chinese characters), and construction of cultural identity (formation of a sense of belonging and pride in traditional culture through technical learning). AI technology restores the creative scenes of classic works and integrates relevant historical documents through digital means, providing intuitive support for students' cultural understanding and helping students achieve in-depth absorption of cultural connotations while conducting technical training.

3.3. Aesthetic Innovation Dimension: The Core Kernel of Balance

Aesthetic innovation is the core of the balance between technology and creativity, referring to students' ability to achieve personalized expression and innovative breakthroughs on the basis of inheriting traditions. This dimension mainly includes: aesthetic judgment ability (judgment on the advantages and disadvantages of work style, ink color, and composition), personalized style shaping ability (forming a unique personal writing style on the basis of traditional calligraphy styles), cross-border integration ability (creative expression combining calligraphy elements with modern design, digital media, cultural and creative products, etc.), and thematic creation ability (original work creation around specific cultural themes). AI technology provides creative inspiration and expression tools for students through style simulation and element recombination, but core creative conception and aesthetic judgment still rely on students' independent abilities.

3.4. Human-Machine Collaboration Dimension: The Era Characteristic of Balance

Human-machine collaboration is a unique dimension of the balance between technology and creativity in the AI era, referring to students' ability to reasonably use AI tools to achieve technical inheritance and creative development. This dimension mainly includes: AI tool application ability (proficient use of intelligent copying, technical analysis, auxiliary creation and other tools), technology adaptation ability (selecting appropriate AI tools according to learning and creative needs), and independent control ability (screening, optimizing, and surpassing technical demonstrations and creative schemes generated by AI to avoid over-reliance). Its core is to regard AI tools as "auxiliary means" rather than "substitutes", improving the efficiency of technical inheritance and the boundary of creative expression through human-machine collaboration.

4. Construction of a Teaching Model for the Balanced Development of Technology and Creativity

4.1. Principles for Constructing the Teaching Model

To ensure the scientificity, rationality, and operability of the teaching model, combined with the characteristics of higher calligraphy education and AI technology, this study follows four core principles:

Inheritance-oriented Principle: Taking the inheritance of traditional calligraphy techniques and cultural connotations as the core, the application of AI technology always serves the cultivation of technical proficiency and cultural understanding, avoiding technology-dominated teaching;

Creativity-oriented Principle: Highlighting creative cultivation on the basis of inheritance, guiding students to form unique styles and innovative abilities through personalized teaching, and avoiding rigidity in technical training;

Human-Machine Collaboration Principle: Giving full play to the auxiliary role of AI tools, while strengthening teacher guidance and student independent practice to achieve complementary advantages of humans and machines;

Academic Adaptability Principle: Conforming to the academic requirements of higher education, integrating technical training, creative practice with academic research (such as calligraphy history and theory, cultural interpretation) to improve students' comprehensive literacy.

4.2. Core Modules and Implementation Paths of the Teaching Model

This study constructs a "three-stage progressive + four-dimensional integration" teaching model, realizing the dynamic balance between technical inheritance and creative development through the deep integration of three teaching stages and four core modules.

4.2.1. Basic Stage (Technical Inheritance + AI Assistance): Consolidating the Foundation of Balance

This stage focuses on the dimensions of technical proficiency and cultural understanding, achieving precise inheritance of techniques through "traditional training + AI empowerment".

- Core Content: In-depth analysis of classic calligraphy works, basic brushwork and structure training, learning of calligraphy history and theory;
- Implementation Path: Using AI digital analysis tools for calligraphy works to realize visual presentation of brush stroke trajectories and quantitative analysis of structural proportions of classic works such as *Preface to the Lanting Collection* and *Ode to the Jiucheng Palace*, helping students intuitively understand technical principles; real-time capturing students' brush movement data through intelligent writing recognition systems, comparing with standard data of classic calligraphy works to generate personalized technical correction suggestions; integrating creative backgrounds, calligraphers' life experiences, and evaluations of past dynasties through AI

cultural interpretation tools to realize synchronous advancement of technical training and cultural learning.

4.2.2. Improvement Stage (Creative Enlightenment + Human-Machine Collaboration): Cultivating Balanced Abilities

This stage focuses on the dimensions of aesthetic innovation and human-machine collaboration, guiding students to conduct creative exploration on the basis of consolidating techniques.

- Core Content: Style imitation and breakthrough, thematic creation practice, AI-assisted creative training;
- Implementation Path: Helping students analyze the stylistic characteristics of different calligraphers through AI style simulation tools, and exploring the embryonic form of personal styles on the basis of imitation; setting thematic creation tasks of "modern transformation of traditional elements", guiding students to combine calligraphy elements with graphic design, digital media, etc., with the help of AI-assisted design tools; carrying out human-machine collaborative creation exercises, allowing students to independently complete creative conception, realize creative visualization using AI tools, and then optimize works through manual polishing, cultivating a thinking model of "creativity-led + technical assistance".

4.2.3. Integration Stage (Comprehensive Application + Innovative Output): Achieving Balanced Objectives

This stage realizes the deep integration of the four dimensions, improving students' balanced abilities through comprehensive practice and academic research.

- Core Content: Cross-border innovation practice, combination of academic research and work creation, graduation creation and exhibition;
- Implementation Path: Setting cross-border innovation projects (such as calligraphy cultural and creative design, digital calligraphy work creation, planning of cross-border calligraphy art exhibitions), requiring students to independently complete the entire process from creative conception, technical realization to work presentation; encouraging students to combine calligraphy history and theory research, cultural connotation interpretation with creative practice in conjunction with academic research topics to improve the academic depth of works; realizing integrated online and offline exhibition of graduation works with the help of AI digital exhibition tools, and collecting multi-party feedback through AI evaluation systems to optimize work quality.

4.3. Design of Evaluation Methods

Adopting diversified evaluation methods to comprehensively assess the balanced ability between technical inheritance and creative development:

1. **Combination of Process Evaluation and Result Evaluation**: Assessing

students' learning processes through classroom observations, creative logs, and AI tool usage records; evaluating final works from aspects of technical proficiency, cultural connotation, creativity, and human-machine collaboration ability;

2. **Combination of Qualitative Evaluation and Quantitative Evaluation**: Conducting qualitative descriptions of dimensions that are difficult to quantify such as creative conception and cultural interpretation; scoring quantifiable indicators such as technical accuracy and work completion (full score of 100 points);
3. **Combination of Diversified Evaluation Subjects**: Teacher evaluation (50%, focusing on techniques and academic nature), student self-evaluation (10%, promoting self-reflection), peer evaluation (20%, cultivating aesthetic communication ability), and industry expert evaluation (20%, ensuring practical adaptability) to ensure the comprehensiveness and objectivity of evaluation results.

   Based on the evaluation results, students' balanced abilities are divided into five grades: Excellent (90 points and above), Good (80-89 points), Average (70-79 points), Pass (60-69 points), and Fail (below 60 points), with personalized improvement suggestions provided for each grade.

5. Implementation Strategies of the Teaching Model

Based on the constructed teaching model, combined with the teaching reality of higher calligraphy education, the following implementation strategies are proposed to ensure the realization of the balanced objectives of technical inheritance and creative development:

5.1. Restructure the Curriculum System to Strengthen the Balance Orientation

Guided by the four core dimensions, restructure the curriculum system of calligraphy majors in higher education, breaking the traditional division of "technical courses + theoretical courses": adding cross-border courses such as "AI and Calligraphy Application", "Calligraphy Creative Design", and "Digital Calligraphy Creation" to systematically cultivate students' creative abilities and human-machine collaboration abilities; optimizing traditional courses such as "Copying of Calligraphy Works" and "Calligraphy Techniques" by integrating AI-assisted training content; increasing theoretical courses such as "Calligraphy Culture Research" and "Cross-Cultural Calligraphy Communication" to deepen students' cultural understanding; increasing the proportion of practical courses and setting project-based teaching modules (such as calligraphy cultural and creative projects, cross-border art projects) to realize the deep integration of techniques, culture, and creativity.

5.2. Innovate Teaching Methods to Highlight Student Subjectivity

Relying on constructivist learning theory, innovate teaching methods, transforming from "teacher-centered" to a new model of "student-centered + teacher-guided + AI-assisted": adopting project-based teaching, with real creative projects as carriers to guide students to independently carry out inquiry and practice; promoting group collaborative learning to stimulate learning vitality through creative discussions, technical mutual assistance, and work mutual evaluation; constructing an integrated online and offline teaching platform, integrating AI calligraphy resource libraries, intelligent training tools, creative communication communities and other resources to support students to carry out independent learning anytime and anywhere; carrying out interdisciplinary teaching, cooperating with design, digital media and other majors to offer joint courses to expand students' creative horizons.

5.3. Improve Teaching Resources to Support Model Implementation

Construct a composite teaching resource library of "traditional resources + digital resources + AI tools" to support the implementation of the teaching model: sorting out high-definition digital resources of classic calligraphy works and establishing a database containing analysis of brushwork, structure, and composition; developing AI teaching tools suitable for higher calligraphy education, including intelligent copying systems, technical analysis tools, and creative auxiliary platforms; strengthening school-enterprise cooperation, cooperating with cultural and creative enterprises and digital technology companies to introduce real project resources and cutting-edge technical tools; building calligraphy creative practice bases equipped with digital creation equipment and exhibition facilities to provide students with practice and exhibition platforms.

5.4. Strengthen Teacher Team Construction to Improve Teaching Capabilities

Teachers are the core subjects for the implementation of the teaching model, requiring comprehensive literacy of "technical inheritance ability + creative guidance ability + AI application ability": regularly organizing teachers to participate in special training on the integration of AI technology and calligraphy teaching to improve teachers' AI tool application abilities; encouraging teachers to carry out teaching research and creative practice, participate in interdisciplinary projects and academic exchanges to improve their creative guidance abilities; establishing a teacher teaching community, regularly conducting teaching seminars, case sharing, and collective lesson preparation to promote experience sharing and common growth among teachers; inviting industry experts and AI technology experts to participate in teaching guidance to make up for the ability shortcomings of in-school teachers.

6. Discussion and Prospect

6.1. Research Discussion

This study constructs a teaching model for the balance between technical inheritance and creative development in higher calligraphy education in the age of artificial intelligence, clarifies the four core dimensions and the implementation path of "three-stage progressive + four-dimensional integration", and proposes corresponding curriculum, teaching, resource, and teacher team construction strategies. The core conclusions are as follows: the balanced ability between technology and creativity in higher calligraphy education is the organic unity of four dimensions: technical proficiency, cultural understanding, aesthetic innovation, and human-machine collaboration. Among them, technical proficiency is the foundation, cultural understanding is the support, aesthetic innovation is the core, and human-machine collaboration is the era characteristic; the teaching model must follow the four principles of inheritance-oriented, creativity-oriented, human-machine collaboration, and academic adaptability, realizing the gradual improvement of abilities through three progressive stages; diversified evaluation and comprehensive support strategies are the key guarantees for the implementation of the model.

The innovations of this study are reflected in two aspects: first, based on the academic nature and innovation of higher education, it constructs a balanced ability system adapted to the characteristics of calligraphy as a discipline, breaking the simplistic understanding of the relationship between technology and creativity in existing researches; second, it deeply integrates the characteristics of AI technology, incorporating human-machine collaboration as an independent dimension into the ability system, filling the gap in higher calligraphy education research in the AI era. At the same time, this study has certain limitations: the construction of the teaching model is based on theoretical analysis and teaching experience, and subsequent large-scale teaching practice is needed for empirical testing and optimization.

6.2. Research Prospect

Artificial intelligence technology is still developing rapidly, and its impact on higher calligraphy education will continue to deepen. Future research can be carried out in two core directions: first, conducting empirical research, piloting the teaching model in calligraphy majors of multiple universities, verifying the effectiveness of the model through large-sample data, and optimizing curriculum settings, teaching methods, and evaluation indicators according to practical results; second, expanding the research field, extending the research results to related majors such as calligraphy education and cultural communication, and constructing targeted teaching models combined with the characteristics of different majors; third, tracking the latest development of AI technology, exploring the application of new

technologies such as generative AI and virtual reality (VR) in calligraphy teaching, and timely adjusting the teaching model and strategies to ensure that the research is always in line with the development of the times and teaching needs.

Artificial intelligence has brought new development opportunities for higher calligraphy education, rather than an impact on traditional calligraphy. Higher calligraphy education workers should correctly grasp the relationship between technology and creativity, take the inheritance of traditional culture as the core, take AI technology as an empowering tool, and guide students to realize personalized creative expression on the basis of firmly inheriting traditional techniques through curriculum reform, teaching innovation, and resource construction. Ultimately, it will cultivate compound calligraphy talents with cultural confidence, technical skills, and innovative abilities, injecting vitality of the times into the inheritance and innovation of traditional Chinese culture.

7. Conclusion

Taking the age of generative artificial intelligence as the background and higher calligraphy education as the research field, this study combines constructivist learning theory, cultural heritage education theory, and educational technology integration theory to clarify the core connotation and four dimensions (technical proficiency, cultural understanding, aesthetic innovation, human-machine collaboration) of the balanced ability between technical inheritance and creative development. On this basis, following the four principles of inheritance-oriented, creativity-oriented, human-machine collaboration, and academic adaptability, it constructs a "three-stage progressive + four-dimensional integration" teaching model, and proposes implementation strategies from four aspects: curriculum system restructuring, teaching method innovation, teaching resource improvement, and teacher team construction.

The research shows that although artificial intelligence has reconstructed the teaching ecology of higher calligraphy education, it cannot replace the cultivation of students' core abilities, but instead puts forward higher requirements for the balance between technology and creativity. The core task of higher calligraphy education is to guide students to correctly position the "auxiliary role" of AI tools, cultivate independent aesthetic judgment and innovative thinking on the basis of firmly inheriting traditional techniques and cultural connotations, and realize the dynamic balance between technical inheritance and creative development. A scientific teaching model and implementation strategies can provide a clear path for this goal, promoting the transformation of higher calligraphy education from "technical inheritance" to "inheritance + innovation", and cultivating compound calligraphy talents adapted to the needs of the cultural industry.

In the future, higher calligraphy education must always take the balanced cultivation of technology and creativity as the core, keep up with the development

trend of artificial intelligence, continuously optimize teaching practice, make AI technology an "empowerer" for the inheritance and innovation of traditional culture rather than a "substitute", and ultimately realize the modern development of higher calligraphy education and the living inheritance of traditional culture.

References

[1] Wang, S. Z. (2024). The reform of design education in the age of artificial intelligence[J]. Art Research, (01), 10-13.

[2] Cao, T. Q. (2023). The integrated development of generative artificial intelligence and art education[J]. Art Education, (10), 21-26.

[3] Zhang, H. S. (2024). Artificial intelligence empowering university governance: Multiple effects and transformation of governance efficiency[J]. Chongqing Higher Education Research, 12(2), 25-36.

[4] Lin, J., & Wang, Y. (2024). The Impact of Generative AI on Digital Media Art Creation: A Case Study of Midjourney[J]. Computers in Human Behavior, 148, 107732.

[5] Wang, C. Y. (2023). Cultivation of students' innovative ability in digital media art major under the background of human-machine collaborative creation[J]. Hundred Schools in Arts, 39(S1), 213-215.

[6] Zhang, Y. (2023). Digital media art education in colleges and universities from the perspective of digital ethics[J]. China Higher Education, (18), 43-45.

[7] Li, X. M. (2023). Research on the talent training mode of "integration of art and technology" in digital media art major[J]. Decoration, (08), 136-137.

[8] Qian, C. X. (2022). *Art Pedagogy*. Beijing: Higher Education Press.

[9] Mahade, A. Leveraging AI-driven insights to enhance sustainable human resource management performance: moderated mediation model: evidence from UAE higher education [J]. SpringerLink, 2025.