

Key Research on the Reconstruction and Development of Oil Painting Creation Teaching in Universities in the Era of Digital Intelligence

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Received: 18 October 2025; **Accepted:** 15 November 2025; **Published:** 25 December 2025

Abstract:

This paper briefly discusses the reconstruction and development of oil painting teaching in universities under the digital intelligence era, analyzing the opportunities and challenges brought by the advancement and application of digital and artificial intelligence technologies. It explores pathways and strategies for the reconstruction and development of oil painting teaching in universities from the perspectives of “enhancing the integration and application of digital intelligence technologies and developing digital teaching resources” and “innovating teaching models and optimizing evaluation systems,” aiming to improve the quality and efficiency of oil painting teaching in universities and foster the development of students’ abilities and competencies.

Keywords:

Era of Digital Intelligence, Universities, Oil Painting Creation Teaching

1. Introduction

The “Opinions on Accelerating the Digitization of Education” jointly issued by the Ministry of Education and nine other departments clearly proposes to continue to improve the resource layout of the national smart education “four horizontal and five vertical” platform, that is, to gather high-quality resources around the four major fields of basic education, vocational education, higher education, lifelong education, and the five major sectors of morality, intelligence, physical fitness, aesthetics, and labor; Emphasis is placed on continuously deepening the digital transformation and intelligent upgrading of courses, textbooks, and teaching, promoting the integration of advanced technologies such as digital technology and artificial intelligence into the entire process of education and teaching. With the support of various policies, the driving force of teaching reform and innovation needs, and the support of advanced technology, the teaching of oil painting creation in universities is actively promoting the innovation and optimization of teaching concepts, content, methods, and evaluation systems, promoting the improvement of course teaching quality and

efficiency, cultivating oil painting creation talents and artistic talents with innovative spirit and digital literacy.

2. The Goal Requirements for Teaching Oil Painting Creation in Universities

The teaching of oil painting creation in universities should cultivate composite talents with solid professional skills, strong innovative creation ability, high artistic and aesthetic literacy. Specifically, through the teaching of basic knowledge and sketching training, students are ensured to master the basic techniques and material properties of oil painting, such as color matching, composition, and stroke application, to enhance their understanding of picture composition and color visual perception, and possess solid basic skills in oil painting; By appreciating oil paintings, explaining the history of Western and Chinese art, and enhancing students' aesthetic emotions and cross-cultural understanding abilities; By drawing on diverse artistic languages to enrich creative techniques, and guiding students to start from their inner emotions and integrate personal emotions and perspectives into oil paintings around themes such as life scenes and social hotspots, they can form their own unique artistic style and enhance their artistic expression; Through theme exploration, systematic writing, copying, and creative practice, we aim to promote the improvement of students' observation, expression, and technical skills, as well as the development of innovative thinking. The teaching of oil painting creation in universities can be achieved through various means such as the combination of theory and practice, project-based learning, new media teaching, situational creation, and interdisciplinary teaching. The combined application of digital technology, artificial intelligence technology, and other technologies in the digital age also empowers the innovation and efficient achievement of diversified goals in oil painting creation teaching.

3. Opportunities and Challenges of Oil Painting Creation Teaching in Universities in the Era of Digital Intelligence

3.1. The opportunities brought by it

The development and application of digital technology have brought new opportunities for oil painting creation teaching in universities, promoting innovative teaching modes, rich teaching content, interdisciplinary collaboration space, and international vision expansion. At the same time, it supports situational teaching, personalized teaching, and interactive teaching, creating high-quality oil painting creation teaching classrooms and helping to efficiently achieve diversified goals in curriculum teaching and talent cultivation. Specifically, the integration and application of digital technology has to some extent broken the traditional academic teaching model, enriching the techniques and forms of oil painting creation; Based on modern network technology, a large database and intelligent platform have been constructed to effectively integrate massive resources, which are presented in diverse ways such as text, images, videos, animations, etc. With the help of mobile devices, students can access global art trends and absorb creative concepts from different cultural backgrounds anytime and anywhere [1]; The construction of smart platforms also supports blended online and offline teaching, filling the shortcomings of traditional teaching models during class and expanding teaching and creative spaces; The combination and application of advanced technologies such as virtual reality (VR) technology, through the construction of simulated art scenes and real teaching

scenarios, stimulates students' interest, associative imagination, and enhances creative inspiration; The combined application of artificial intelligence technology (AI) supports precise analysis of creative data and provides real-time feedback. It offers targeted teaching resources, recommends personalized learning paths, and provides personalized learning plans for students with different abilities, needs, and styles, helping students better overcome learning bottlenecks; The use of digital painting software such as Photoshop and Procreate supports students in oil painting creation teaching to quickly modify and adjust the image, helping students expand their thinking and optimize the creative process. In addition, based on digital technology, it can actively promote interdisciplinary teaching, promote the cross integration of art and technology, history, design, music and other fields, inject diverse cultural elements into oil painting creation teaching, and stimulate students' creative inspiration and guide them to engage in diversified expression and expression in this process, breaking the limitations of oil painting techniques under traditional teaching models [2].

3.2. Challenges Faced

While digital technology is promoting the transformation, upgrading, and innovative development of oil painting creation teaching in universities, it also brings new challenges. Traditional teaching models may not be able to adapt to this technological innovation, which in turn affects the smooth implementation and overall effectiveness of teaching activities. For example, some teachers find it difficult to adapt to the development of teaching work under technological innovation and teaching mode innovation, resulting in insufficient application of digital tools and inadequate development and integration of digital teaching resources in teaching practice. There are still situations where students passively receive knowledge and lack active exploration space, and there is a disconnect between basic course teaching and creative course teaching, which cannot achieve the expected teaching effect [3]. The evaluation system needs to be improved and optimized. In the digital age, emphasis is placed on personalized expression and creative development of students, requiring comprehensive, dynamic evaluation and real-time feedback of the entire creative process and students' abilities and qualities. However, the evaluation system under the traditional teaching mode is mainly based on realistic techniques, and the evaluation of students' creative thinking development and personalized expression is insufficient. Moreover, teaching evaluation is still dominated by teacher standards, and students' self-evaluation and peer evaluation are insufficient, which affects the cultivation of students' independent creative consciousness and leads to the problem of students' creative direction convergence. In addition, the integration of courses lags behind, and there is insufficient integration of new skills, multicultural elements, and diverse art forms formed in social development. The optimization of creative teaching and the cross integration of music, history, technology, and other disciplines are also insufficient, which to some extent affects the development of students' thinking ability and the improvement of their comprehensive literacy.

4. Reconstruction and Construction Path Strategy of Oil Painting Creation Teaching in Colleges and Universities in the Era of Digital Intelligence

4.1. Intensify the integration and application of digital and intelligent technologies, and develop digital teaching resources

The teaching of oil painting creation in universities should adhere to the reform and innovation of technology empowerment teaching, improve quality and efficiency, promote the integration of digital and intelligent technology into the entire process and elements of curriculum teaching, and bring new forms of expression and creative methods to oil painting creation teaching; Based on the diversified goals of oil painting creation teaching, textbook content, student cognitive patterns, and talent cultivation needs, combined with the application of digital technology, effective development and integration of digital teaching resources should be achieved to assist in the efficient development of oil painting creation teaching and cultivate innovative artistic talents with solid techniques and mastery of modern tools.

One is to promote the widespread application of digital image processing technology in oil painting creation teaching. In the process of material collection and preprocessing, high-resolution images are obtained using digital cameras, scanners, etc., and contrast and color balance are preprocessed to provide materials for composition and color experiments in students' oil painting creation. Students continuously adjust saturation, contrast, and hue during the oil painting creation process to make the oil painting work more realistic, bright, and enhance its expressive power. In the process of creative conception and composition design, utilize the multifunctional software tools such as Photoshop and Painter to inspire students' creative inspiration and help them optimize their composition. For example, by utilizing the simulation function of the software, students can attempt various creative ideas on picture books and quickly present their creative prototypes; By utilizing its layer management function, perspective and scale correction, etc., it helps students quickly compare and verify multiple composition schemes, light and shadow relationships, and optimize composition designs [4]; Breaking through the limitations of materials and techniques in traditional teaching models through stroke simulation, material library, style transfer, etc., to stimulate students' imagination and personalized expression. In the process of technique learning and style imitation, based on the application of AI technology, students are guided to analyze the stroke characteristics, color matching, composition rules, etc. of the master's works, providing intuitive references for students to understand the expression techniques displayed in different schools of painting. Throughout the learning process, digital brushes can also be used to simulate painting, and various techniques can be proficiently mastered through repeated practice. Then, they can integrate their own ideas and viewpoints, gradually transitioning to physical canvas creation and creative expression. This teaching process greatly reduces the difficulty of students learning and mastering techniques. In the process of showcasing works and evaluating teaching, immersive classrooms are constructed using high-definition digital displays and VR interactions to help students better understand the creative expressions and connotations in the works, and promote the enhancement of aesthetic abilities.

Secondly, promote the widespread application of VR technology in oil painting creation teaching. Based on the application of VR technology, combined with textbook content and teaching practice, a three-dimensional virtual space is created to break the physical limitations of traditional art studios and guide students to achieve immersive creative experiences in freely exploring virtual galleries and historical scenes; VR also provides an interactive experience that simulates real painting tools, supporting operations such as digital brushes, dynamic color grading, and playback of the creative process, providing convenience for students to repeatedly practice and master techniques in oil painting creation teaching. For example, the "Virtual Reality

Copying Public Education Course” jointly launched by Suzhou Art Museum and Xipu Affiliated School guides students to use VR devices to copy their collection of oil paintings, achieving the transformation from traditional paper art to virtual space art; Artist John M. McGowan uses the VR painting tool Tilt Brush to create three-dimensional artworks, achieving dynamic expression through virtual canvases and diverse brushes.

Thirdly, promote the widespread application of AI technology in oil painting creation teaching. The powerful functions supported by AI can generate multiple paintings of different tones and styles in a short period of time, which has significant advantages in stimulating students' imagination and providing creative inspiration, providing more ideas and directions for students' oil painting creation. However, in teaching, it is necessary to avoid excessive reliance on AI to avoid weakening students' independent creative ability. Implementing personalized teaching driven by AI, utilizing AI technology to intelligently analyze each student's learning progress, creative style, mastery of oil painting skills, and creative process. Based on this, personalized learning paths are developed for students with different styles, foundations, and needs, providing targeted teaching content, materials, and methods to help students quickly break through weak links.

4.2. Innovate teaching modes and optimize evaluation systems

In the era of digital intelligence, the teaching of oil painting creation in universities should be able to balance traditional teaching with the application of digital technology. With the support of various digital technologies, it is necessary to continuously promote the innovation of teaching modes and the optimization of teaching evaluation systems; Focusing on building smart classrooms, promoting blended learning and interdisciplinary integration of online and offline teaching, and helping to improve the quality and efficiency of curriculum teaching; Implement dynamic evaluation and real-time feedback to comprehensively reflect students' mastery of knowledge and skills, as well as their development of abilities and qualities, and guide the improvement and optimization of oil painting creation teaching.

Firstly, innovate teaching methods. Create a smart teaching platform, promote blended online and offline teaching, and create digital teaching resources such as micro lesson videos and other materials related to basic knowledge and skills teaching, such as oil painting history, oil painting theory, and digital technology, and upload them to the online platform for students to watch and learn anytime and anywhere according to their own learning progress and needs; Offline, more emphasis is placed on practical teaching, guiding students to use the skills and methods they have mastered for creative expression and practical operation, and providing one-on-one guidance and group discussions on the problems encountered in students' oil painting creation during classroom interaction, as well as peer evaluation of their works. Carry out project-based teaching by setting up oil painting creation projects related to digital technology, such as “Urban Landscape Oil Painting Creation in the Digital Age” and other themed oil painting creation projects. Encourage students to explore and complete projects independently, use their mastery of digital technology and oil painting creation knowledge to solve problems and complete tasks. While understanding and applying oil painting knowledge, promote the improvement of students' problem-solving and innovation abilities. Carry out interdisciplinary integration teaching, actively promote the cross integration of oil painting creation

teaching with literature, history, philosophy and other related disciplines, promote the integration and application of multicultural elements in teaching practice, broaden students' knowledge horizons and cultivate comprehensive qualities in this process; Consciously introduce some knowledge content from fields such as computer science and artificial intelligence, and add basic courses on digital painting software such as TensorFlow, RunwayML, Procreate, etc., to promote students' basic skills in digital image processing and painting creation; Add 3D modeling and rendering courses to help students better understand object structure and spatial relationships, light and shadow effects, etc., and provide more creative inspiration and rich expression techniques for students' oil painting creation [5].

Secondly, optimize the evaluation system. In the era of digital intelligence, the teaching of oil painting creation in universities also needs to continuously optimize the evaluation system. Based on the application of various advanced technologies, a digital intelligent teaching evaluation system should be constructed to dynamically evaluate and intelligently analyze students' learning behavior, oil painting creation process, and development of students' abilities and literacy. This also facilitates the participation of students' self-evaluation, peer evaluation, and parental evaluation. Promote the combination of process evaluation and outcome evaluation, comprehensively record data related to students' sketches, modification records, and other oil painting creation processes, conduct systematic evaluations of the oil painting creation process and final works, and reflect the development of students' oil painting creation abilities. Using AI assisted analysis of oil painting works and styles, combined with image recognition technology, to quantitatively evaluate the composition, color, brushstrokes, and other creative elements of student oil painting works in a more detailed manner, improving evaluation efficiency and objectivity of evaluation results.

5. Conclusions

The teaching of oil painting creation in universities should seize the opportunities brought by the digital age, promote the integration and application of digital technology in teaching, achieve innovative optimization of teaching modes and methods, teaching evaluation systems, etc., increase the development and integration of digital resources, cultivate compound oil painting talents with innovative consciousness, digital technology application ability, and strong creative ability, and better adapt to the development needs of the digital age.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

Funding

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

References

- [1] Xi, Y.N. Research on Micro Course Design and Production of Fine Arts Oil Painting Course Based on Creative Ability Cultivation. *Industry and Technology Forum*, 2022, 21(18), 209-210.

- [2] Fan, Y.Q. Research on the reform of oil painting teaching in colleges and universities in the era of “Internet plus” -- taking micro classes as an example. *Art Evaluation*, 2020, 4, 130-131.
- [3] Zhang, B. Research on Oil Painting Teaching Reform in Colleges and Universities in the “Internet plus” Era. *Grand View*, 2020, 7, 106-107.
- [4] Fan, Y.Q. Research on the three-dimensional practical teaching system of classical oil painting courses in colleges and universities based on the “Internet plus” SPOC model. *Art Literature*, 2025, 222(4), 94-96
- [5] Wu, J. Reconstruction and Construction of Oil Painting Creation Teaching in Colleges and Universities in the Era of Digital Intelligence. *Art Education Research*, 2025, 9, 128-130.



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