

An analysis of the teaching path of digital media art in colleges and universities under the background of digital technology empowerment

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Abstract: With the rapid progress of digital technology, the teaching of digital media art in colleges and universities urgently needs to carry out corresponding innovative measures to meet the situation of the times, the teaching concept and mode lag behind, the curriculum system and the development of digital technology deviate, and the digital literacy and practical skills of the teaching staff are insufficient, which restricts the improvement of teaching quality and students' ability. Relying on these practices, it is intended to create a new model of digital media art teaching that is more efficient, innovative and in line with the future trend.

Keywords: Digital Technology; University; Digital Media Arts; Pedagogical Innovation; Teaching Resources

Introduction

Following the wave of digitalization, as a new interdisciplinary discipline - digital media arts, the teaching mode and content urgently need to keep up with the pace of the times, and the usual teaching concepts and models are often difficult to meet the requirements of the rapid development of digital technology, resulting in students facing the separation of knowledge and skills in actual work.

1 The necessity of digital technology to empower digital media art teaching in colleges and universities

In the multidisciplinary context of digital media art, technology is not only a creative tool, but also an important carrier of artistic expression - from 3D modeling, motion graphics, to virtual reality and interactive design, cutting-edge technology plays a direct and decisive role in the presentation form and communication efficiency of works. As the main platform for talent creation, if colleges and universities still rely on the traditional teaching system, it will make students' skills disconnected from industry needs: now the digital art industry has entered a new stage of "technology leads creativity", for film and television post-production, game development, new media installations and other fields, the requirements for real-time rendering, AI-assisted design, cross-media interaction and other technical capabilities are becoming more and more demanding^[1].

2 The current dilemma faced by digital media art teaching in colleges and universities

2.1 Teaching concepts and models lag behind

In the field of digital media art teaching in colleges and universities today, the old-fashioned teaching concepts and models still control the dominance, seriously unable to keep up with the pace of the development of the times, some teachers still adhere to the concept of knowledge transfer as the core, in the classroom generally use indoctrination methods, knowledge is passively accepted by students, lack of opportunities for active exploration and innovation, in the environment of this model, students' learning initiative and creativity are greatly inhibited, in some theoretical courses, teachers invest a lot of time to explain concepts, principles, It almost does not lead students to connect theory with practical cases, resulting in students having the ability to memorize knowledge points, but unable to apply these contents in actual creation^[2].

2.2 The curriculum system is disconnected from the development of digital technology

With the rapid evolution of science and technology, in the field of digital media art, all kinds of new technologies and new applications

continue to appear, such as artificial intelligence, like virtual reality, like augmented reality, the curriculum system of digital media art in colleges and universities has not been able to quickly keep up with the development trend of technology, showing a prominent decoupling phenomenon, the curriculum knowledge is outdated and backward, some colleges and universities are still using textbooks and syllabi from many years ago, the knowledge and cases in it can not show the latest development trend in the field of digital media art, in some animation production courses, The focus is still on the teaching of traditional two-dimensional animation production techniques, but the content of the current popular three-dimensional animation technology, animation special effects synthesis and other aspects is limited, causing students to have obstacles in meeting the industry's demand for new animation talents after graduation^[3].

2.3 The digital literacy and practical ability of the teaching staff are insufficient

The quality of teaching is directly affected by the quality of the teaching staff, in the teaching process of digital media art courses in colleges and universities, there are obvious shortcomings in the level of digital literacy and practical ability, some teachers need to further improve their digital literacy, the progress of digital media art depends on the continuous iteration of digital technology, teachers should have a good comprehensive ability of digital literacy, in order to better guide students to grasp the latest technical knowledge. In fact, some teachers lack the understanding of emerging digital technologies, lack the motivation for active learning and exploration, and have difficulties in integrating the latest digital technologies into the curriculum content.

3 The path of digital technology to empower digital media art teaching in colleges and universities

3.1 Innovate teaching concepts and build a new teaching paradigm of digital empowerment

In view of the demand for innovative talents in the digital age, the traditional teacher-centered one-way teaching model is difficult to adapt to the times, and it is necessary to transition to a new teaching system with students as the main body and technology as the connection. use virtual reality (VR), augmented reality (AR) and other technologies to build immersive learning situations, and guide students to experience the integration of art and technology in the virtual creation world; Relying on artificial intelligence (AI)-assisted teaching systems to achieve personalized learning path directional push, and implementing precise guidance according to each student's creative style and technical shortcomings, it is necessary to build the concept of interdisciplinary integration, break down the barriers between art and technology, theory and practice, advocate students to open up new categories of artistic expression with the help of digital technology, and help the teaching goal transition from "skill training" to "innovative thinking shaping", so that teachers can transform from knowledge teachers to creative guides and technical collaborators, and finally build a "technology stimulates creation, Creation feeds back technological progress"^[4].

3.2 Optimize the curriculum system and integrate cutting-edge digital technologies and applications

Digital technology in the teaching of digital media art in colleges and universities, optimizing the curriculum system is the key support carrier, we must take the development of the industry and technology replacement as the guide, eliminate the aging of technical content in traditional courses, the phenomenon of disconnection between theory and practice, and create a curriculum system that combines cutting-edge technology with artistic creation and application scenarios. Modular courses such as "Principles of AI Art Creation" and "Virtual Digital Human Design" either replace or upgrade traditional software operation courses. From the level of system construction, strengthen the progressive training system of "basic theory-technical training-project practice", the lower grades focus on the foundation of digital technology and artistic thinking training, and the senior grades rely on interdisciplinary project courses (such as integrated game development, digital exhibitions, new media advertising, etc.) to improve the comprehensive application ability. The technical certification system represented by Blender Advanced Certification has been added to the credit system, so that the course content is seamlessly connected with the needs of the industry, and the technical skills mastered by students are always at the forefront of the industry.

3.3 Strengthen the construction of teachers and improve their digital literacy and cross-border capabilities

If the construction of teachers is strengthened, they can start from the two dimensions of "technical ability improvement" and

“cross-border vision expansion” to create a multi-level training pattern, and a solid digital technology training mechanism should be built, so that teachers can fully master cutting-edge technologies such as AI creation tools, immersive media technology, and cross-platform development through win-win school-enterprise cooperation and special training at home and abroad. Eliminate the disconnection of teaching content due to technical cognitive delay. Focus on the shaping of cross-border capabilities, support art teachers to carry out joint teaching and research practice with teachers in computer science, design, communication and other fields, and use means such as forming interdisciplinary teaching groups and collaborative development of courses to break down disciplinary boundaries. It is necessary to improve teacher incentive methods, add digital teaching innovation achievements to the professional title evaluation and performance appraisal system, and promote teachers to take the initiative to develop new ways to combine technology and teaching, and finally create a compound teacher group that not only understands the laws of artistic creation, but is also proficient in digital technology practice, and has interdisciplinary insights^[5].

3.4 Build a high-quality teaching resource sharing platform to empower the whole process of teaching

The platform must integrate multiple resources such as cross-school high-quality courses, industry cutting-edge cases, virtual simulation projects, software tool libraries, etc., and use cloud storage, big data analysis and other technologies to complete intelligent push to adapt to the needs of various types of teaching scenarios: students can use the platform to obtain preview materials, industry real-time dynamic videos, etc., master the use of digital tools in advance; Teachers can use the platform material library to implement case teaching and virtual training, and use real-time screen sharing to complete cross-class and cross-college joint creation guidance; The platform can present work display space, online mutual evaluation function modules and extended learning-related resources, achieving a closed link of “preview-teaching-practice-feedback-expansion”.

3.5 Innovate the teaching evaluation mechanism, focusing on the assessment of digital literacy and innovation ability

In the dimension of evaluation content, it is not only focused on students’ mastery of digital media technology, but also needs to focus on the digital literacy of innovative application of digital tools, data information screening and integration, cross-media narrative, etc., as well as innovative literacy such as creative planning, program improvement, and problem response. The evaluation mode should integrate procedural evaluation and final evaluation: in the process, the learning management system is used to track students’ digital tool use records, team collaboration logs, creative draft updates and other data, and the specific trajectory of their learning is reviewed in real time. The final evaluation goes beyond the scope of a single work scoring, introducing multiple dimensions such as virtual exhibition hall display, online review by industry experts, and feedback from user experience, and comprehensively considers the complexity of the work’s technical achievement, creative uniqueness, and social application value^[6].

Conclusion

In short, digital technology empowers the teaching of digital media art in colleges and universities, not only to realize the innovation of the traditional teaching model, but also to the forward-looking planning of the future talent cultivation model, based on the innovative teaching concept, optimize the curriculum system, strengthen the teaching team, build a resource sharing hub and innovate the evaluation model, which can effectively improve the quality of teaching, improve students’ digital literacy and innovative talents, which is not only conducive to students to more effectively adapt to the requirements of the future society, but also lays a solid foundation for the long-term development of digital media art education in colleges and universities. With the continuous development of digital technology, there is a certain reason to believe that digital media art teaching in colleges and universities will move towards a broader and more dynamic future.

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