Research on Literary and Art Development
2025, VOL. 6, NO. 6, 170-173
DOI: 10.47297/wsprolaadWSP2634-786537.20250606

Innovative Mechanisms and Practical Exploration of Oil Painting Teaching Models in the Digital-Intelligence Era

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ABSTRACT
In the environment of the fastest evolution of digital-intelligence technologies, the models of teaching of oil-based paintings have never been as challenged and paralleled with opportunities. The age of digital-intelligence gives the oil painting education a new energy: besides the renewal of the teaching method, a multitude of prospects in artistic manifestation is provided by the latest technology. Through the new technology, like Virtual Reality (VR) and Augmented Reality (AR), students are no longer limited to traditional canvas and pigments, it simply means that they can explore and invent in multidimensional, digital spaces at their own will. The assistance of Artificial Intelligence (AI) facilitates one-on-one tutoring and immediate feedback during the process of teaching to appeal to the creative potential of each student and allow its development. Initially, having the real-life example of the digital-intelligence technologies usage in teaching oil painting, the given paper will explore the innovative processes of oil painting educational models during the period and how the successful integration may be effective in practice. It provides some of the successful examples of digital intelligence as applied in oil painting teaching through the analysis of case and indicates future development issues.

KEYWORDS
Digital-intelligence age; Oil painting education; New mechanisms; Pedagogical model; Experiential learning

1 Introduction

As the digital-intelligence technologies rapidly develop, the process of educational change has simply entered the entire range of disciplines and art education is not an exception. Overall, oil painting pedagogy, which has long been based on the principles of manual skills and conventional pedagogy, is in urgent need of revision. Digital technology does not only introduce new creative space to the oil painting art, but it also offers more personalized method of teaching, which is more efficient. VR and AR enables students to explore and disrupt the ever-changing innovative contexts, and AI provides instant analysis and feedback of student work, assisting students in comprehending the inward relationship of technique and art. All this augers that the direction of oil painting training must no longer be one-track, and only based on sensory perception and actual demonstration; it is shifting to a more participatory, multidimensional and personalized approach. The teaching of oil painting utilizing digital-intelligence technologies has limitless opportunities and provides more significant opportunities to teacher-student interaction. The question of how to make the digital intelligence to integrate with the traditional concept of oil paintings teaching becomes a major concern in future practice of education in this field.

2 The Digital-Intelligence Era and its Effects on the Teaching Model of oil Painting

2.1 The Digital-Intelligence Technology Analysis and Education Revolution

The blistering development of digital-intelligence technologies has had an overwhelming effect on various spheres, in particular, the educational sector, the transformative effect on the classical forms of teaching which is observed more and more in the sphere of education. With the emergence of information technologies in the recent years, especially AI, VR, and AR, the existing methods of teaching have been shaken and offered like never before. Learning is not restrained like it was in the days when education was based on face-to-face learning; technological applications facilitate more relaxed, open and interactive learning modes. In oil painting they have involved digital intelligence, not only is instruction made different, the way the students come up with art work is transformed, which is no longer limited by physical barriers of the traditional classroom, it has given the art education a fresh dimension [1].

2.2 Teaching models of Traditional Oil painting and its limitations

Though teaching of the traditional oil painting has had a rich experience and achievements, its limitations are increasingly becoming apparent. Traditional training is normally teacher based, which is based on explanation and demonstration, students learn the technique mostly by imitating and practicing it repeatedly and hence the approach is more or less single and fixed. Since oil painting requires mastery skills and time intensive requirements to work, and that it rather requires individual teacher training, the teaching process in question is not characterized by interaction and

flexibility, and cannot address correspondingly diverse and individual developmental needs of students. Besides, the traditional instruction of oil painting is limited by space and material. Most of the time one teacher has to work with a lot of students, but the traditional format will be unable to offer the necessary real-time, specific feedback and assistance. The disparities between learners are also significant and most of the learners are unable to be assisted in close manner in a general classroom environment, especially in a large classroom where instructions are often very general and not custom-designed. Consequently, in cases of massive instructional needs, the conventional model is incapable of effectively accommodating diverse learning requirements of the students, and the need to innovate teaching structures and patterns is therefore becoming a pressing reality.

3 The Potential Application of the Digital-Intelligence Technologies in Teaching Oil Painting

3.1 Phenomenon advertised: the incorporation of Virtual Reality and Augmented Reality Technologies

VR and AR in oil painting instruction have created a new frontier in works of art. The approach to teaching traditional oil painting can be restricted to physical canvas and paint, and this restricts the creativity of the student. VR and AR allow students to design and practice in a 3D virtual environment and overcome the limits of the canvas. By using VR, students will be able to work in entirely immersive settings, without any external interference, which speaks to creativity. Using virtual spaces students have a chance to mimic various artistic instruments and test color and texture with immediate feedback; they are able to test and refine ideas in a creative manner, and very rapidly.

AR, in its turn, integrates virtual components with reality allowing students to seamlessly combine oil painting creation and reality. During the process of painting on the canvas, students, for instance, may use AR devices to see how their work will see their way in various spaces or locations. This type of instant visualization provides a very acute awareness of and discipline of such artistic facets as color and light. AR does not only enhance the interactivity and engaging nature, but also makes the instruction of art more lively and transparent.

3.2 AI-Aided Individualized Instruction

AI teaching can be used to teach oil painting in a personalized and fine-tuned manner. Conventional methods tend to focus on homogenous content and common norms and it is hard to realize personal needs. Under AI, every student is able to study with his/her pace and according to his/her capabilities. Investigating the process and result of painting in students, the system may determine the successes and failures in a timely way and offer immediate recommendations and feedback.

As an example, AI can evaluate the features of color matching, line fluency and compositional logic and provide specific improvement recommendations through image-recognition technologies. The use of AI-based learning advancement tracing and evaluation systems assist the students in mastering the art of oil painting techniques- both at starting levels to advanced methods in creating the masterpiece and help them in continuous developing artistic abilities.

Intelligent platforms and online interactive learning represent a type of technology that enables online education through interactive learning.<|human|>(3) Intelligent Platforms and Online Interactive Learning Intelligent platforms and online interactive learning is a kind of technology that facilitates with online education with interactive learning.

With the related development of the digital-intelligence technologies, the education about oil painting is gradually shifting the model of traditional classroom learning into the form of online interaction. With the introduction of smart platforms, the options are more lax. Students are able to produce the anywhere and anytime using digital platforms breaking time and space boundaries. Online support makes students posted their works that may be reviewed by the teacher who can leave comments on the works and offer suggestions on how to revise them, enhancing dynamism and promptness.

More artistic exchange can be also stimulated using these platforms with such features as discussion areas and online exhibitions. Learners are able to showcase their works and communicate with others via discussions and criticisms. This kind of interaction makes the motivation stronger and helps to learn and adopt different styles of art.

4 Creative Oil-Painting didactical in the Digital-Intelligence Age

4.1 Integration and Innovation of Intelligent Teaching Resources

We intend to integrate and develop intelligent teaching resources with considerable innovation through the implementation of the second strategy, and through integrability and innovation, the SCSS will achieve: (a) seamless knowledge flow alongside uninterrupted learning; and (b) prompt and accurate provision of pertinent feedback to learners. < |human| >We will integrate and be very innovative in intelligent teaching resources by implementing the second strategy and through integrability and innovativeness, the SCSS will result to: (a) flow of knowledge seamlessly

with continuous learning and (b) timely and relevant feedback rendering of the learner.

In the digital-intelligence age, teaching oil painting is no longer based on the use of traditional textbook books and physical classrooms. Intelligent teaching resources integration emerges as a significant tool of enhancing the quality of teaching. Teachers can package up highly valuable learning with digital platforms and smart tools and offer a more personalized learning experience. As an illustration, we can use online teaching platforms that entail a combination of historical masterpieces of oil paintings, demonstration videos of the techniques, and interactive tutorials which will allow the students to know the world of oil painting in various angles and dimensions. Intelligent resource integration also enables students to have more access to artistic works - world classics and modern innovative works at their fingertips [2].

With the use of big-data technologies, learning progress of students can be analyzed in real time and the corresponding learning resources can be pushed through the platform. An example is that in case the student demonstrates a weakness in the use of color, the system can suggest materials connected with color theory and color matching strategies. Such intelligent recommendation can help students get the most appropriate content at the time of need ensuring that learning becomes more efficient and more effective.

4.2 Interdisciplinary Integration and Application of Different teaching strategies

Teaching oil painting is not exactly passing of techniques as in artistic techniques, but a process of inter disciplinary integration. In the digital-intelligence age, oil painting training ought to transcend disciplinary boundaries and embrace cross disciplinary frameworks. With the integration of some knowledge in the science of color, psychology, history, and other related sciences, students may gain a clearer insight of the meaning and value conveyed in art creation. The students as an example can refer to the psychological theories of color perception in the creative process to be aware of the emotions the colors are expressing thus utilize the color with more accuracy to capture the emotions and ideas.

Moreover, the contemporary oil painting education teaching can be also diversified with the help of digital technologies. Using the online collaboration tools allows students to communicate with teachers and in addition, they are able to collaborate with students to do group work on a given project and here they are able to create oil painting works because of collaboration. These interdisciplinary and diversified practices are not only empowering artistic creation ability but also augment such skills as teamwork, critical thinking, and amalgamation of cross domain knowledge.

4.3 Understanding of Personalized Creation and Self-Directed Learning

The digital-intelligence generation challenges the teaching of oil painting to individualism and self-education. With the traditional models, content and methods have been found to be fixed and could not be able to accommodate individual needs to full capacity. Under the influence of digital-intelligence, the paths to learning can be personalized in terms of the interests of the student, his/her level, and demands. They can select themes and methods of oil painting to which they are either interested, and even pace themselves, which, with the help of intelligent teaching platforms, are learned at their own rhythm. Such a self-managed practice offers the students more freedom of expression and the creativity is allowed to develop more.

Smart platforms also have the ability to suggest materials according to the habits and interests of the students. To illustrate, the students that have used particular interest in modern oil painting will be able to obtain the tutorials and materials pointing towards contemporary art production thus they will be able to immerse in the preferred areas. Students that prefer classical techniques can be provided with analyses and tutorials that are concentrated on classical masterpieces. Under this kind of personal support, the artistic potential of the students can be fulfilled as much as possible [3].

5 Digital-Intelligence and Teaching of Oil Painting: Practical Exploration of Teaching through Digital-Intelligence Technologies

5.1 Case Analysis: The Implementation of an Intelligent Teaching Platform of Oil Painting

Digital-intelligence technologies have also started being actively used in the teaching of oil painting in certain educational institutions and with some significant outcomes. Based on the example of an art academy, the institution has pioneered an intelligent oil painting teaching platform and a revolution to the conventional model. In this platform, students may use virtual space to produce oil paintings and get real-time technical feedback produced by the AI algorithm. The platform does not only provide rich art materials, but it can also dynamically adapt instructional material to the progress of students and therefore each learner can grow through a unique path of learning.

An example is that the platform evaluates the application of color and rationality of composition in the painting process and provides particular feedback recommendations based on AI analysis of student use of color and relevance of composition in the process. AI can also be used to create real-time detection of the rhythm of the painting of students and assist the students with spotting the blind spots of the creation. There are cases when at early stages some students

tend not to pay any attention to the composition and in this case platform can make them realize the necessity of composition immediately and help to correct the structure accordingly, without the common mistake in traditional classroom learning where mistakes go unnoticed and fixed in time. This feedback and guidance is not only personalized, but creative ability can also be enhanced among students, at the same time, time required to learn how to master the technique of oil painting can be shortened significantly.

5.2 Practical Classroom Operation of Digital Teaching Tools

Digital teaching tools are designed to operate in a standard classroom; therefore, their practical activity will be pursued with a standard classroom in mind wherever feasible, and with the intended users in the classroom at that specific time and place.<|human|>(2) Digital teaching tools in the classroom will be used under normal classroom conditions; hence, as far as possible, their practical application will be carried out within the classroom and with the intended users in that particular classroom at that particular time and location [4].

Instructing the use of digital tools is slowly advocated in the classroom setting of oil painting, which streamlines the teaching process and increases its level of interaction. First, it has become customary to use digital drawing boards and smart software in the creation of painting. Students will be able to make more directly with them, and they will not waste materials that cause wastage commonly experienced with traditional painting. Students are able to simulate and experiment freely on virtual canvases which can afford them more creative pleasure.

Indicatively, a student may use the computerized drawing board and in a short time, s/he may have learnt to smear, mix and scrape the screen. This assists them in knowing how the oil painting method works in reality as well as minimizing multiple errors of trial and error and time spent on physical canvases. Moreover, on-line interactive capabilities provide the teachers with the ability to guide and comment in real-time when the students are creating. Remote connection will also enable the teachers to see progress and give professional recommendations, enhancing the effectiveness of classroom engagement.

5.3 Inter-media learning and international interaction in the art production

In digital-intelligence technology, it is also guaranteed that teaching oil painting is not as restricted by the local classroom set-up anymore, cross-platform education and international artistic interchange are now more practical. In other foreign art forums, students are able to not only engage in creation of oil painting but also to communicate with other art lovers and experts around the world. Accordingly, by means of supporting social platforms with artistic orientation, students will be able to share their oil painting and comment on it with other artists. This intercultural and interregional interaction expands the artistic boundaries and introduces the students to various styles and techniques [5].

Participation in international art competitions and art exhibitions would help the students to evaluate against works of world standards and be evaluated and given suggestions by international professionals. This international interaction does not only enhance artistic competence but also empowers on cultural identities and further confidence on artistic expression. Through online classes, students have an opportunity to study and communicate with artists and students of other nations, exchange their creative experiences, and still improve the level of artistic literacy and cross-cultural communication skills.

Conclusion: Digital-intelligence era has provided not seen-before opportunities in developing oil painting education and has profoundly changed it. Since the inception of technical tools and the various inlets of spreading teaching methods, digital intelligence does not only enhance effectiveness in the teaching activities, but also gives wider platform to students production and expression. The use of VR, AR, and AI defies the limitations of the traditional teaching models, releasing oil painting education no longer to be restricted by the physical space and traditional methods and throwing it into the direction of more personalized, interactive, and globalized development. Nevertheless, despite the huge transformation by digital technologies, the aspect of balance between the conventional art and the application of modern technology is one of the central questions in the further educational innovation.

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