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Retraction

Retracted: The Innovative Development of Russian Modern Oil Painting under the Background of Internet of Things and Artificial Intelligence

Security and Communication Networks

Security and Communication Networks has retracted the article titled "The Innovative Development of Russian Modern Oil Painting under the Background of Internet of Things and Artificial Intelligence" [1] due to concerns that the peer review process has been compromised.

Following an investigation conducted by the Hindawi Research Integrity team [2], significant concerns were identified with the peer reviewers assigned to this article; the investigation has concluded that the peer review process was compromised. We therefore can no longer trust the peer review process, and the article is being retracted with the agreement of the Chief Editor.

References

[1] Y. Mou, "The Innovative Development of Russian Modern Oil Painting under the Background of Internet of Things and Artificial Intelligence," *Security and Communication Networks*, vol. 2022, Article ID 6110129, 7 pages, 2022.

[2] L. Ferguson, "Advancing Research Integrity Collaboratively and with Vigour," 2022, https://www.hindawi.com/post/advancing-research-integrity-collaboratively-and-vigour/.

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Research Article

The Innovative Development of Russian Modern Oil Painting under the Background of Internet of Things and Artificial Intelligence

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Contemporary Russian oil paintings have realized the inheritance and development of classical paintings. Although it is deeply influenced by European and American oil painting creations, it is commendable that it did not fully follow the creative framework of Western works, but realized the image of absorbing the essence of it and then integrating it into Eastern literature and art, and finally formed the integration of Chinese and Western oil paintings in Russian oil painting with a unique creative style. With the continuous development of science and technology, mankind has put forward higher-level requirements for nature, society, science, and technology, and many new things are rising in these aspects. As an emerging industry, Internet of things technology is becoming an important part of modern information technology. It can not only change the way and content of information dissemination and processing but also improve people's quality of life and meet the growing material and cultural needs of the people. This paper first introduces the basic structure, style characteristics, and development process of Russian modern oil painting, then expounds the application of Internet of things technology and artificial intelligence technology, and then uses the method of questionnaire to investigate the innovation and development of Russian modern oil painting. Finally, the survey shows that senior students know more about Internet of things technology, while applied majors know more than non-applied majors. The grade that knows the least is freshmen, which is related to the degree of exposure to professional knowledge. Students majoring in Russian modern oil painting can share their painting experience through the Internet of things, learn online painting resources through the Internet of things, and add extra income to their part-time painters through the Internet of things. However, due to the Limited breeding technology of students, a small number of students can be part-time online painters, and most students use the Internet of things for knowledge input. Senior students majoring in Russian modern oil painting know more about artificial intelligence, and junior and sophomore students have a general understanding of this field. Through research, the team proposed the innovative development of modern Russian oil painting under the background of Internet of Things and artificial intelligence for reference, and formed our own oil painting creation style by integrating a variety of techniques.

1. Introduction

Russia is a country with many nationalities, with profound cultural heritage and unique cultural characteristics [1, 2]. With the increasing demand of the Russian people for material civilization and the increasingly obvious trend of economic globalization, Russia's social development level is also in the forefront of the world [3, 4]. As a new technological revolution and one of the important driving forces of disruptive innovation in traditional industries in the information age, the "Internet of things" is to integrate information technology into modern oil painting creation, and realize the combination of Internet platform and computer to realize the digital production mode [5].

Many scholars have conducted relevant research on the Internet of things and artificial intelligence technology [6]. In recent years, with the continuous improvement of computer application level, the accelerated development of Internet of things and the increase of Internet penetration, Russia's scientific and technological field has been further

explored and studied. At the same time, some new problems have emerged due to the enhancement of Russia's socio-economic strength and the rapid improvement of its scientific and technological level [7]. The innovative reform of its intelligent technology has become one of the urgent issues to be solved in Russia. During his visit, the Russian Prime Minister put "Internet of things technology" on the agenda as an important content and officially launched the research plan [8]. The main goal of the plan is to integrate, transform, and upgrade the existing Internet, cloud computing, and other new scientific and technological means, obtain information through the Internet of things sensing equipment, and process these data to form a complete and applicable intelligent system (i.e., artificial intelligence) in the process of industrial production, and use sensor acquisition to obtain relevant images generated by human activities. Then, it is combined with machine learning algorithm. In the 1980s, Russian scholars put forward the concept of "artificial intelligence". He believes that computer technology is the product of the development of modern economy and society to a certain stage [9]. Based on intelligence and integrating new factors such as traditional science and technology, information network, and management concept, it forms and evolves a series of advanced science and technology, production tools, and application systems. At the same time, it emphasizes the great influence of human-created material civilization and spiritual and cultural values in the scientific field, thus promoting the continuous improvement of the level of social productivity [10]. The above research has laid a research foundation for this paper.

With the progress of science and technology, computer technology plays an important role in the development of human society, and artificial intelligence is produced by the interaction between computer, man, and nature. With the continuous development of Russia's economic level and the optimization and upgrading of its industrial structure, the Internet of things has become a driving force for Russia's economic and cultural development [11]. This paper mainly expounds the analysis and prediction of the driving force of Russian modern oil painting innovation by Russian science and technology based on the Internet of things and artificial intelligence methods, in order to provide scientific basis and decision-making suggestions for the future development of modern oil painting in Russia through data collection and sorting out relevant materials [12].

2. Discussion on the Innovative Development of Russian Modern Oil Painting under the Background of Internet of Things and Artificial Intelligence

2.1. Modern Russian Oil Painting

2.1.1. Infrastructure. Russia's economy is developing rapidly, its society is stable, people's living standards have been greatly improved, and the demand for materials is getting higher and higher. People's spiritual pursuit is also constantly improving. Therefore, it is particularly important for artistic creation. As a cultural carrier and aesthetic object, oil painting is one of its main manifestations. At the same time, it has certain speciality, uniqueness, and irreplaceability. On the basis of absorbing the mainstream techniques of Western Europe, Russian painters integrated perspective painting methods, added Russian native elements, and invented the multi-point perspective analysis method. This method of painting fully reflects the Russian literary style, while expressing the reorganization of style, rhythm, color, and structure through this method. For example, "Moonlight on the Dnieper", the painter boldly chooses materials according to his own consciousness, analyzes, and rearranges the landscape.

2.1.2. Style Characteristics. (1) The Characteristics of Humanistic Thought Are Remarkable. The thoughts of Contemporary Russian oil painters in artistic creation generally have humanistic characteristics. They advocate people-oriented, pay attention to life, advocate human nature, follow nature, advocate beautiful art, advocate fraternity, praise truth, goodness and beauty, and criticize falsehood and ugliness. These are the embodiment of humanistic spirit. Russian modern oil painting has the characteristics of humanistic thought. It mostly adopts traditional culture in the form of expression and pays attention to emotional expression. Russian National painters have made a profound study of the traditional aesthetics and religious spirit of the Russian school. In the book art and society, the author reflects the differences and differences between the two countries in varying degrees by describing a large number of people's lifestyles, religious beliefs, languages, and so on. In addition, from the perspective of "human", it also discusses the humanistic ideological characteristics contained in modern Russian oil painting, including personal emotion and attitude, life philosophy, and many other contents [13, 14].

(2) Strong Russian National Spirit. Russian oil painters can achieve brilliant artistic achievements, which are closely related to Russian national spirit and feelings. The Russian nation has a strong sense of belonging and homeland, and the national ideal and romantic feelings are rooted in the hearts of every Russian. People have a strong sense of national pride, which makes them love Russia's vast territory. Ordinary people worship the great civilization of their country. In particular, the ideological and emotional love of their own national art makes the art works of painters all over the world show the national spirit. This national spirit enhances the confidence of Contemporary Russian oil painters in artistic creation and lays a solid foundation for them to create excellent works with national artistic temperament [15, 16]. Under the guidance of national spirit, the aesthetic orientation of Russian contemporary painters adheres to the aesthetic characteristics of their own traditional paintings. Almost all contemporary Russian painters have learned valuable experience from traditional icon paintings, murals, and folk art. It can be said that the essence of Russian national art provides the strongest ideological basis for the integration of Russian contemporary oil painting into world art.

(3) Distinctive Individualism. Russian modern oil painting, based on traditional art, pays attention to emotional expression. When creating, we should not only consider the influence of personal emotional factors and artistic atmosphere. It also embodies its unique, distinctive, and personalized characteristics, and pays attention to the subjective description of objective things. "Thing" refers to something that people have or own or can be given a special meaning to form an untouchable thing. "Painting" is to express the painter's inner feelings and ideas by depicting the object in the picture [17, 18].

2.1.3. Development Process. Russian modern oil painting had a certain plan for its development at the beginning of its creation, but its development was slow due to the influence of religion, culture, and other factors. With the changes of the times and the continuous improvement of Russia's economic strength and international influence, Russian society has developed a strong recognition of traditional painting. Russians' understanding of art is based on traditional culture, and through continuous learning and reference, they have formed their own creative ideas. They believe that aesthetic standards are adapted to the living environment. Therefore, modern Russian oil painting has been innovating and developing in accordance with the principle of "object-oriented" from the beginning to the end. The modernist painters, in particular, incorporate a lot of personal emotional elements into them. Although this creative trend was suppressed during the Soviet era, its influence has not completely subsided. When the Soviet Union disintegrated, the environment for the development of Russian art was unusually relaxed, and the seeds of contemporary Russian art quickly recovered. Yachenin's art is grotesquely twisted. After the disintegration of the Soviet Union, the opportunities for Russian artists to exchange and study art with Western countries have greatly increased, which has prompted the thinking of modern Russian artists to become extremely active, and a large number of world-renowned oil paintings have appeared [19, 20].

2.2. Internet of Things Technology

2.2.1. Concept. Internet of things technology is to integrate the science and technology of information sensing and processing into an organic whole, so as to realize intelligent identification. In this process, sensors and network communication equipment are needed to complete this function. It mainly refers to monitoring the status of goods and providing relevant services through information communication network, RFID system, cloud computing, and other information technologies. Figure 1 is the basic framework of Internet of things technology.

2.2.2. Application. The Internet of Things is a deep union of various heterogeneous networks, so that things within the radiation range are incorporated into a unified system. From the current development point of view, the biggest problem
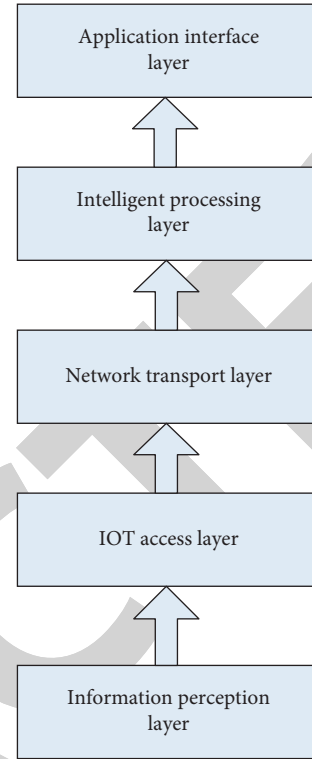

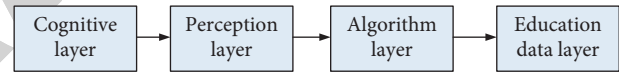Figure 1: The basic framework of the Internet of Things technology.

Figure 2: Basic flow chart of artificial intelligence technology.

facing the Internet of Things at this stage is the guarantee of security. Formulas (1)-(2) are the calculation of the setting of the security node.

$$H(\xi, \alpha, \beta) = \text{Round}\left(\frac{(\xi + \alpha)}{\beta}\right), \tag{1}$$

$$\xi_i = T_i + \omega. \tag{2}$$

2.3. Artificial Intelligence

2.3.1. Concept. Artificial intelligence is a brand new field. It is not a research on human intelligent thinking and methods, but a new application developed on the basis of computer technology and network communication. Artificial intelligence algorithm mainly refers to the use of artificial neural network as the basis to form rules with autonomous learning significance by processing existing data sets and knowledge. Figure 2 is the basic flow chart of artificial intelligence technology.

2.3.2. Related Technologies. BP neural network is a widely used multi-input nonlinear mapping method. Its main functions include: processing, predicting and classifying information, and

TABLE 1: Russian Modern oil painting student.

	Applied major in modern oil painting	Modern oil painting is a non-applied major	Overall number of people
Freshman	16	34	50
Sophomore	27	23	50
Junior	18	32	50
Senior	23	27	50

converting the feature quantity existing in the problem into a corresponding relational expression. The correlation between different types of sample data is used in artificial neural network training by introducing neuron training algorithm. Because the network information is too complex, the authenticity of the information cannot be guaranteed, so there will be many cognitive biases. Its definition formula is as follows:

$$K = \frac{1}{5}(e - \delta)^2. \tag{3}$$

Bringing the data into the above formula can further obtain the bias value of the hidden layer:

$$K = \frac{1}{5} \sum_{\theta=3}^{l} (s_\theta - e(\text{net}_\theta)). \tag{4}$$

It can be seen from equations (1) and (2) that the deviation of network information is directly related to the weight given to it. Therefore, we need to choose an appropriate algorithm to scientifically calculate and evaluate this weight. At this stage, the BP algorithm is the most used weight calculation algorithm with the smallest error. Therefore, the determination of the weights in this paper mainly relies on the BP algorithm for screening.

3. Investigation on the Innovative Development of Russian Modern Oil Painting under the Background of Internet of Things and Artificial Intelligence

3.1. Investigation Purpose. The main content of this paper is to analyze the application of Russia and artificial intelligence in the Internet of things and intelligent oil painting, investigate the innovation and development status of Russian modern oil painting in Russia, understand the problems existing in its development process, and put forward corresponding countermeasures, so as to find out the problems affecting the development of Russia and computer technology, and put forward corresponding suggestions.

3.2. Respondents. The subjects of this survey are applied majors and non-applied majors of Russian modern oil painting. The questionnaire is designed mainly for the knowledge they learned in school, and the data is analyzed according to the actual situation. Table 1 shows the basic information of the respondents.

3.3. Investigation Contents. This survey mainly focuses on the questionnaire design and distribution of Russian modern oil painting students' understanding, application,

and cognitive level of modern Internet of things technology. This interview mainly focuses on these aspects. First, the knowledge, understanding, and understanding of the application of Internet of things technology. The second is to draw a conclusion after analyzing and studying the ability of Russian artificial intelligence and other aspects. The third is to put forward corresponding countermeasures and give their own suggestions according to the influencing factors in the social, economic, and cultural environment of Russia.

4. Investigation and Analysis on the Innovative Development of Russian Modern Oil Painting under the Background of Internet of Things and Artificial Intelligence

4.1. Russian Modern Oil Painting Students' Understanding of Modern Internet of Things Technology. Table 2 is a survey of Russian modern oil painting students' understanding of modern Internet of things technology and is shown in Figure 3.

As can be seen from Figure 1, the students majoring in Russian modern oil painting still have some deficiencies in their understanding of the development and application of the Internet of things in the information age due to the influence of computer technology, communication network, and other factors. This paper selects the application-oriented students and non-application-oriented students of Russian modern oil painting for investigation. It can be seen from the figure that senior students know more about Internet of things technology. At the same time, application-oriented students know more than non-application-oriented students. The grade that knows the least is freshmen, which is related to the degree of exposure to professional knowledge.

4.2. Application of Modern Internet of Things Technology by Russian Students Majoring in Modern Oil Painting. Figure 4 shows the application of modern Internet of things technology by Russian students majoring in modern oil painting.

From Figure 4, it can be seen that the use of information terminals has become very common among Russian modern oil painting majors in the process of learning. Various data show that freshman and sophomore students use the most frequently. Russian modern oil painting students are still in the preliminary stage in the application of Internet of things technology. Due to their low foundation, they cannot make full use of these network technology tools to improve their knowledge and skills of computer software and hardware equipment. However, some activities based on Internet of things

TABLE 2: Russian students majoring in modern oil painting have an understanding of modern Internet of Things technology (Unit: %).

|		Be very familiar with		General familiar with		Be unfamiliar with	
Freshman	Applied major in modern oil painting	25	43	42	82	33	77
	Modern oil painting is a non-applied major	18		40		44	
Sophomore	Applied major in modern oil painting	39	70	49	86	12	43
	Modern oil painting is a non-applied major	31		37		31	
Junior	Applied major in modern oil painting	41	75	44	91	16	36
	Modern oil painting is a non-applied major	34		47		20	
Senior	Applied major in modern oil painting	56	104	34	70	7	21
	Modern oil painting is a non-applied major	48		36		14	
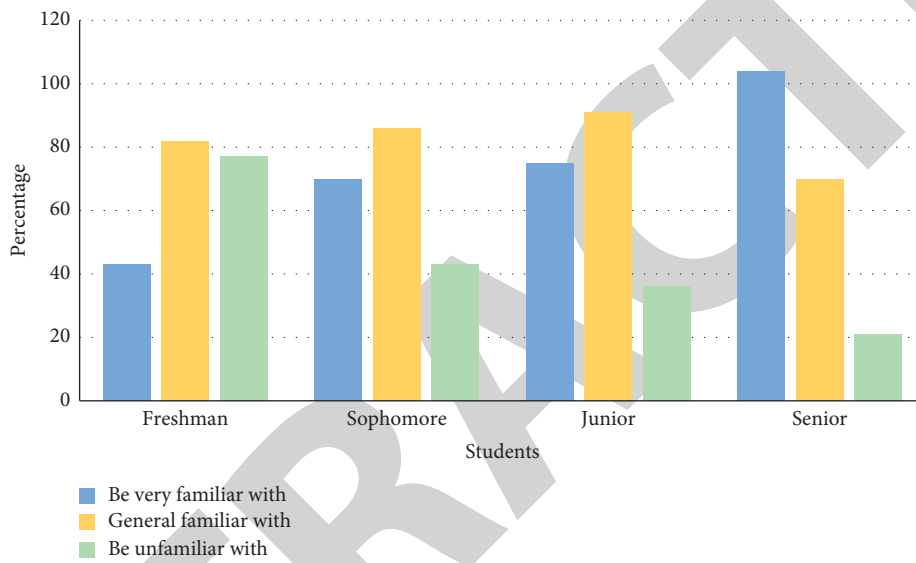
FIGURE 3: Russian students majoring in modern oil painting have an understanding of modern Internet of Things technology.
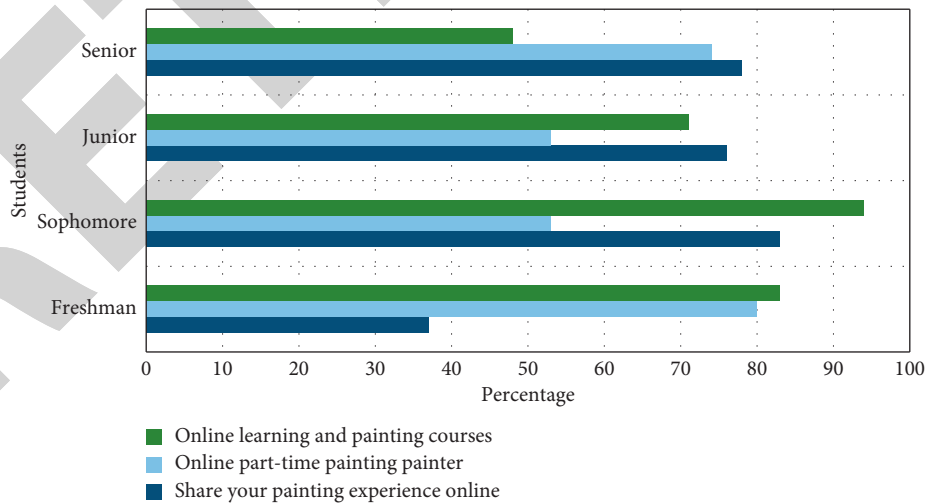

FIGURE 4: The application of Russian modern oil painting students to modern internet of things technology.

activities can enable students to improve their painting skills. As can be seen from Figure 2, students majoring in Russian modern oil painting can share their painting experience through the Internet of things, learn online painting resources through the Internet of things, and add additional income to themselves through the Internet of things. However, due to the Limited breeding technology of students, a small number of students can be part-time online painters, and most students use the Internet of things for knowledge input.

TABLE 3: Russian modern oil painting students have an understanding of artificial intelligence technology.

		Be very familiar with		General familiar with		Be unfamiliar with	
Freshman	Applied major in modern oil painting	23	37	40	79	37	83
	Modern oil painting is a non-applied major	14		39		46	
Sophomore	Applied major in modern oil painting	46	91	45	75	11	47
	Modern oil painting is a non-applied major	35		30		36	
Junior	Applied major in modern oil painting	45	81	44	84	11	35
	Modern oil painting is a non-applied major	36		40		24	
Senior	Applied major in modern oil painting	59	101	38	69	5	33
	Modern oil painting is a non-applied major	42		31		28	

TABLE 4: Classification of the Internet of Things characteristics.

	Impact rate (%)
Virtuality	21
Entertainment	31
Pioneer spirit	38
Rebellion	10

TABLE 5: Innovative ways of oil painting creation.

	Ways
1	Enrich the oil painting creation materials with the internet of things
2	Artificial intelligence experimental oil painting creation and sharing
3	Change the shape and expression of oil painting with the internet of things
4	Promote the game nature of oil painting with artificial intelligence

4.3. Russian Modern Oil Painting Students' Understanding of Artificial Intelligence Technology. Table 3 shows the degree of Russian modern oil painting students' understanding of artificial intelligence technology.

With the advent of the era of big data and the high-precision and all-round rapid development of neural network architecture and computer science, artificial intelligence has successfully immersed in the field of artistic creation and successfully created artistic works, and the field of contemporary art presents a new ecological outlook. In the face of rapid social development, artificial intelligence has provided the traditional painting art with infinite dimensional space and various unpredictable uncertainties, subverting the traditional painting communication system. As can be seen from Table 3, senior students majoring in modern oil painting in Russia know more about artificial intelligence, and junior and sophomore students have a general understanding of this field.

4.4. Influence of Internet of Things Characteristics on the Innovation and Development of Modern Russian Oil Painting. Table 4 shows the influence rate of Internet of things characteristics.

The era change caused by the Internet of Things technology has made the social aesthetic concept increasingly personalized, thus forming the aesthetic category in the virtual field. Reflected in the field of oil painting creation and appreciation, more and more image processing software has been applied, and its functions have become increasingly complete and diversified. Information equipment has become an important medium for processing oil painting works, and has shown a strong attraction.

4.5. Innovative Development Approaches of Modern Russian Oil Painting. Table 5 shows the innovative development ways of oil painting.

The continuous transformation of Russia's economy, the adjustment of industrial structure, the continuous improvement of its international status, the support of national policies, and the rapid popularization and application of Internet technology and science and technology have promoted great changes in Russia's social and cultural life, mode of thinking, values, and aesthetic consciousness. In the process of innovation and development of modern Russian oil painting, we should make full use of the advantages of computer technology and integrate the existing scientific and technological achievements with artificial intelligence as the core. The combination of Internet of things technology and artificial intelligence has integrated traditional thinking with new creativity and intelligent means to realize the era of "wisdom". Build a new and efficient interactive communication mode through the network platform to improve work efficiency and reduce costs. Build an information sharing system with the help of the Internet platform to enable people to obtain the required materials and data more freely and conveniently, so as to better provide the basis and basis for the innovation and development of Russian modern oil painting.

5. Conclusion

With the development of economy and the improvement of social productivity, human beings have put forward new requirements for nature and lifestyle. At the same time, scientific and technological progress has also brought changes to people's working environment. When solving the problem of food and clothing, the Russian people began to pursue spiritual and cultural prosperity. These demands push the rapid rise of animal networking technology. Using advanced scientific and technological means to transform

the traditional process has become one of the essential, efficient, energy-saving, and environmental protection economic models in modern industrial production mode. As a new information processing platform, the Internet of things plays an important role in the social development of Russia, which promotes industrial innovation and upgrading. This paper discusses the innovative thinking methods and development of Russian modern oil painting under the background of Internet of things and artificial intelligence, which is of great significance to promote the sustained, healthy, and stable growth of China's economy and the all-round progress of society. By learning from the development of Russian oil painting art, we will realize the innovation of the way of contemporary painting art creation in my country, thereby enhancing the people's national self-esteem and self-confidence.

Data Availability

The data sets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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