Research on Artificial Intelligence Ethics in the Field of Art Design

Yueen Li*, Jin Gu and Liyang Wang
Shandong Jianzhu University, Faculty of Industrial Design, room JY324, Fengming St., Jinan, China.
* Corresponding Author Email: leeyohn@sdjzu.edu.cn

Abstract. Through the analysis of the ethical dilemmas encountered by artificial intelligence in the field of art design, the method of systematic analysis is used to provide the methods and models of art ethics research under the condition of artificial intelligence, and the implementation of artificial intelligence ethical standards is adjusted to study new ethical principles. And strive to maximize the practical effectiveness of artificial intelligence ethics; establish a reliable art creation norm under artificial intelligence conditions. On the basis of emphasizing technical research, the largest possible research on humanities investigation. And from the research and top-level design of artificial intelligence ethics, promote the improvement of people's livelihood and welfare, promote the healthy development of the industry, and grasp the initiative of a new round of technological revolution. Seize the period of strategic development opportunities for artificial intelligence, accelerate the pace of ethical research and innovation, build a competitive advantage in the development of artificial intelligence, build an intelligent society as soon as possible, and use technology to benefit the people.

1. Introduction
IEEE is called "the world's largest professional organization of advanced technology". According to a recently released report, their artificial intelligence standards will give priority to humans because they promise to keep up with the continuous development of the AI field. Research fields include Machine Morality, Machine Ethics, Moral Machine, Value Alignment, Artificial Morality, Safety AI, Friendly AI, etc., Satoshi Tadokoro[], chairman of IEEE the Robotics and Automation Association, explained why they want to develop such a standard: "Robots and automated systems will bring significant innovation to society. Recently, the public has become more and more concerned about social issues that may occur and the huge potential benefits that may arise. Unfortunately, in these discussions, there may be some misinformation from fiction and imagination." The first standard is: "The ethical promotion standard of machine system, intelligent system and automatic system." This standard discusses "push". In the artificial intelligence world, it refers to the subtle actions that AI affects human behavior. The second standard is "Fail-safe design standards for automatic and semi-automatic systems." It contains automatic technology, if they fail, they may cause harm to humans. For now, the most obvious problem is self-driving cars. The third criterion is "the measure of well-being of ethical artificial intelligence and automatic systems." It explains how advanced artificial intelligence technology can benefit humans.

On the 18th, Stanford University announced the establishment of the "Human-oriented" Artificial Intelligence Institute (HAI). The artificial intelligence scientist Li Feifei of Stanford University and the philosophy professor John Echmandi jointly serve as the deans to promote interdisciplinary cooperation in the field of artificial intelligence. , Let science and technology be human-centered, and
strengthen research on the social impact of artificial intelligence. Stanford University President Mark Tessier-Lavigne[2] said at the opening forum of the Institute that artificial intelligence has shown great potential in improving human life, but it also brings many potential risks. The establishment of HAI aims to reduce artificial intelligence. Harm, make better use of artificial intelligence to improve the quality of human life. "Incorporating ethical research into the foundation of artificial intelligence research and development is a top priority," Li Feifei said at the opening ceremony. She introduced that HAI was born from three simple and powerful concepts: the development of artificial intelligence should be guided by its influence on human society; artificial intelligence should enhance human skills, not replace humans; artificial intelligence should be more integrated into humans. The diversity, difference and depth of wisdom.

Wiener[3], the father of cybernetics, once talked about automation and intelligent machines in his famous book "The Uses of Humans," and came to an alarming conclusion: "The trend of these machines is to replace humans on all levels. Instead of just replacing human energy and power with machine energy and power. Obviously, this new replacement will have a profound impact on our lives." Wiener’s radical words and today’s ordinary people’s concerns about artificial intelligence are exaggerated. However, the rapid development of artificial intelligence technology does bring a series of challenges to the future. Among them, the biggest problem in the development of artificial intelligence is not the technical bottleneck, but the problem of the relationship between artificial intelligence and humans, which gave birth to the ethics of artificial intelligence and transhumanism.

As we all know: Artificial Intelligence (AI) research began in a seminar at Dartmouth College in 1956, with participants Allen Newell (Carnegie Mellon University), Herbert Simon (Carnegie Mellon University), John McCarthy (Massachusetts Institute of Technology), Marvin Minsky (Massachusetts Institute of Technology) and Arthur Samuel (IBM)[4],[5] became the founders and leaders of artificial intelligence research. In March 2016, Alpha Go won the first game against Lee Sedol, a nine-dan professional Go game. In 2017, Alpha Go won three games against Ke Jie, when Ke Jie maintained the world number one for two consecutive years. Faced with the highly intelligent intelligent game of Go, this game marks an important milestone in the development of artificial intelligence. At this point, the academic community has realized that artificial intelligence has entered the era of strong intelligence. During this period, artificial intelligence will simulate human feelings and thinking to a greater extent, allowing a more human-like thinking machine to be born. The famous Turing test separates the test party and the tested party from each other, and only uses a simple dialogue to let the person on the test party judge whether the tested party is a human or a machine. If 30% of the people cannot judge whether the other party is a human or a machine When it is a machine, it means it has passed the Turing test.

Therefore, the purpose of the Turing test is still to test whether artificial intelligence is more like humans. But now we still have to think, if in the future, if artificial intelligence starts to solve some practical problems, they will not need to let themselves go through the intermediary of human thinking to think and solve problems. At this moment, the ethical dilemma that artificial intelligence brings to mankind will be very serious.

2. Ethical Issues of Artificial Intelligence in the Field of Art

2.1. The Ethical Dilemmas Encountered in the Field of Art Design

The field of art is considered to be the last frontier of artificial intelligence. It is generally believed that artificial intelligence can hardly penetrate art-related creations. However, several recent typical events have attracted the attention of academic circles.

Event 1: At the Christie's New York auction, the man-made work "Portrait of Edmond Bellamy" was sold for $432,500, which was 40 times more than the estimated price. "Portrait of Edmond Bellamy" was created by the French art group Obvious through algorithm. Obvious is an organization composed of artists and artificial intelligence researchers. Based on 15,000 pieces of portrait art created between the 14th and 20th centuries, the generation and recognition of portraits are completed with the help of the "Generative Adversarial Network" algorithm (GAN).
Event 2: Nature Morte, the largest contemporary commercial gallery in India, held an artificial intelligence art exhibition. From September 15th, this New Delhi-based gallery has held an exhibition entitled "Gradient Descent", showcasing works of art completed by seven artists in collaboration with computers. This is the first exhibition that regards artificial intelligence art as serious art.

Event 3: If there is a huge controversy in the previous events, and it may be due to the operation of the creative market, the next case shows that artificial intelligence is indeed creating new art.

Walt Disney Concert Hall, located in Los Angeles, California, is the fourth building of the Los Angeles Music Center. It was designed by Pritzker Architecture Prize winner Frank Gehry and is a classic postmodernism (deconstruction) The building, with a peculiar appearance, is a music hall for world-renowned orchestras and singers. This light art exhibition will be displayed for a certain period of time every night. There are also sporadic events, for example: in the field of graphic design: the artificial intelligence typesetting system has been used in WPS, and the production of PPT has also adopted artificial intelligence typesetting. In terms of photography, Huawei's artificial intelligence photography makes many people feel very fresh. The more mature algorithm-driven design has been applied to the Yandex.Launcher software system, which uses an algorithm to automatically set the App color card according to the application icon. Other variables can be set automatically, such as changing the text color according to the background color, and highlighting the eyes in the photo to emphasize emotion. The basic idea comes from the design of parametric typography. Other applications, such as the latest case is a mobile phone application called Prisma, which provides stylized photos that look like works by famous artists.
In history, almost every major technological change has brought new challenges to economic and social development. Artificial intelligence has caused some concerns in society: whether humans will be replaced by machines, whether artificial intelligence is safe and controllable, humans and machines How to define the responsibility, and so on. Only by strengthening the research on artificial intelligence ethics and properly handling the new relationship between machines and humans can we gain more artificial intelligence dividends and let technology benefit mankind.

2.2. Difficulties in the Ethical Choice between Rationality and Perception in the Field of Art Design

The research of artificial intelligence aesthetics also includes how to realize the algorithmization of emotion and creativity. The current purpose of artificial intelligence art is mainly to serve technology. From the above incidents, we can see that artificial intelligence in the field of art will gradually emerge, and the research on artificial intelligence ethics in the field of art is not widespread, but with the penetration of artificial intelligence, how to define the attributes of works of art, how to determine related intellectual property rights, and how to judge the genres and trends of artistic styles. And the emergence of artificial intelligence art makes people need to rethink the laws of beauty, the relationship between art and technology, reason and human liberation. Artificial intelligence aesthetics also involves the issue of human liberation. Artificial intelligence art is becoming an important part of the cultural industry. People's leisure is controlled by the entertainment industry. Some entertainment apps based on artificial intelligence and big data technology, such as "Tik Tok", enable art and entertainment to be accurately calculated. Human beings may never be able to return to the state of "sensibility", and man and nature are completely mediated and isolated by artificial things. In this case, "beautiful reason" has more practical significance. Reason is guided by beauty, technology serves to realize the good life of mankind, and mankind and society become the art of beauty. [2]

Artificial intelligence is a new thing, the ethics research of artificial intelligence is not deep enough, and the ethics research in the field of art as artificial intelligence is even more inadequate. The application of artificial intelligence in the field of art that is in full swing requires forward-looking research in the field of ethics. Ethics also lays the foundation for intellectual property issues in the field of art in the future, laying a foundation for regulating and promoting artistic works and promoting the normative development of the art market. Research is expected to fill the incompleteness of research in this field.

3. Paradigm Research on Ethics Research in the Field of Art Design

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4. Paradigm Research on Ethics Research in the Field of Art Design
Artificial intelligence ethics is a subject of interdisciplinary integration, not only involving engineering technology, cognitive science, environmental science, management and other fields. It also involves Internet technology, artificial intelligence, big data and other current professional knowledge in many information fields. At the same time, sociological knowledge in the fields of psychology, behavior, aesthetics, and philosophy also affects the development of research.

Study the application of artificial intelligence technology in the field of art under the technical cooperation mode of "artificial intelligence + Internet + blockchain", and construct relevant ethical standards in the field of art under artificial intelligence conditions. Focus on solving the four aspects of the cultural dilemma, the dilemma of ethical norms, the value dilemma of stakeholders, and the technical dilemma faced by art works in the process of participating in artificial intelligence.

Starting from the content of the research plan, according to the determined research goals, according to the specific arrangements of time nodes, the research problems are refined, and the solution of key problems is emphasized, so as to obtain the largest research results in a limited time, research and construct the field of art. The artificial intelligence code of ethics first needs to build ethical codes based on five systems of artificial intelligence-based language system, value system, standard system, responsibility system and evaluation system, and explore the application in the field of art.

5. Conclusions
Adhere to the characteristics of academic issues themselves, think from the philosophical level of ethics, based on the application of intelligent art based on artificial intelligence, analyze and study the existing viewpoints and conclusions with objective, fair and third-party academic viewpoints. For example, do not shy away from academic debates in the future application of artificial intelligence, adhere to the research orientation of common issues, maintain sensitivity and explosiveness to the differences of issues, make prudent conclusions on the basis of comparison and thinking, and judge the future with historical materialism. A non-corrective deduction, and strive to obtain the clearest objective results.

In the research, new technical methods will be used to conduct information retrieval for the background information research, such as the use of data mining methods to obtain background information, and the selection of information materials by artificial intelligence can greatly shorten the time for research to obtain information, and the research method is practice-oriented, which can gather research focus, obtain phased results relatively quickly, and contribute to the promotion of application in this field.

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7. References
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