

Research on Artificial Intelligence Products from the Perspective of Design Ethics

Xiaomin Zhou*

Jingdezhen Ceramic University, Jingdezhen, Jiangxi, 333403, China

*Corresponding author

Abstract: With the rapid development of economy and science and technology, artificial intelligence products are rapidly popularized. This paper analyzes some drawbacks of artificial intelligence and artificial intelligence products from the perspective of design ethics. Designers need to face AI products directly, fully consider the existence of design ethics in intelligent product design, and deal with the relationship between design and design ethics. Seize the opportunity to handle human-computer relationship, so that AI can better serve human society and be loved by human beings.

Keywords: Design ethics, Artificial intelligence, Artificial intelligence product, Design

1. Introduction

Traditional ethics is based on the correct behavior of human beings and the norms of moral norms, while modern design ethics is based on ethics. Starting from the height of ethics and morality, adding people-oriented humanistic care into the design is conducive to dealing with the comprehensive relationship between people and building a harmonious and beautiful life style of "human". Since the Industrial Revolution, with the rapid development and wide application of science and technology, the means of human transformation of nature have become more and more advanced and effective. At the same time, with the reform of the social system and the spread of science and technology, the feudal hierarchy and religious forces gradually lost their dominant position. Fairness, justice, democracy and science have become the common value goals of the society, and modern design has also completed a major transformation of ethical value in design ideology: design has changed from serving the elite to serving the public, and natural persons in the whole society have become the service objects of design. On the other hand, due to the substantiality of science and the objectivity of technology, as well as the increasing dependence of design on technology, design is lost in the aspect of humanity and shows excessive rationality and even indifference. More serious is that under the condition of market economy, people's material desires swelling, hedonism, money worship, and modern technology makes people get their material resources than any previous time in quick and efficient, so for the benefit of human beings, and make the earth a double blow of excessive resource consumption and environmental pollution. Under the situation that the real society and the earth environment are facing difficulties, the modern society and modern design are also experiencing a process of ethical loss and ethical recovery. At present, design ethics has gradually penetrated into every field of the design industry, and gradually realized the ethics of the design industry[1-3].

2. The Artificial Intelligence Design Ethics

With the rapid development of economy and science and technology, artificial intelligence is mainly embodied in the field of computer. It tries to understand the nature of human intelligence, and then can produce application software systems, high-tech products, robots, and even bionic people beyond human intelligence. It may also bring about relevant ethical issues, which are mainly reflected in two aspects: On the one hand, once artificial intelligence has the attributes beyond machines and becomes more similar to human beings, whether human beings should give it certain "human rights". On the other hand, artificial intelligence is gradually replacing human beings in some fields of social production and life, so how should we solve the faults caused by artificial intelligence in production and life. In view of these situations, how to guide artificial intelligence to serve human beings from an ethical perspective has become an inevitable problem for the development of artificial intelligence. The emergence of artificial intelligence is a double-edged sword, helping us to efficiently and quickly complete work and tasks,

saving time, energy and worry. The popularity and perfection of artificial intelligence products make it increasingly playing an important and irreplaceable role in our life, which not only facilitates people's life, but also brings some harms.

Li Kaifu once said in a speech: We can predict with certainty that artificial intelligence will surpass humans in any task-oriented objective field in the next decade. Many jobs of human beings will be replaced by artificial intelligence, thus losing some job opportunities. AI will replace the professional jobs of factory workers, construction workers, operators, analysts, accountants, drivers, assistants, agents and even some doctors, lawyers and teachers. In this decade, we will enter an era of anxiety, because the existence and development of AI will disrupt the original state of people's lives. Many people will lose their jobs, their sense of satisfaction, their sense of accomplishment, their passion for struggle, and become confused and helpless, thus disrupting social stability and order. In the face of the great harm brought by artificial intelligence, we can not directly reject artificial intelligence, we should take a rational way to carry forward the advantages of artificial intelligence, so professionals put forward some feasible suggestions. First, relevant legislation should be perfected to regulate the development and utilization of artificial intelligence products through relevant laws, so as to avoid the possible ethical problems caused by artificial intelligence products out of control. Second, strengthen the management of artificial intelligence technology and products. Once the technology is mature, artificial intelligence will be able to formally participate in human life. Therefore, we should strengthen the management of artificial intelligence technology and products, so that they have good "ethical quality". Third, raise the industry entry threshold to ensure the security of technology. Fourth, to improve people's cognitive literacy, the development direction of artificial intelligence largely depends on human beings themselves. If humans cannot prudently accept this technology, it will inevitably create ethical problems. Therefore, the country needs to further regulate the development and use of AI products by establishing laws and regulations to avoid possible ethical problems. In order to make it have excellent "ethical quality" and ensure technical safety, we need to fully refer to and implement the opinions of artificial intelligence experts to avoid risks and avoid the ethical problems brought by artificial intelligence has become an important issue that cannot be avoided in the development of artificial intelligence and robotics industry. We need to keep a modest and rigorous attitude at all times, insist on being responsible for human beings and society, and give full play to the advantages of artificial intelligence. But no matter how the environment changes, people always is very pressing needs for security, and safety is closely related to familiarity, to design the artificial intelligence products, the designer shall ensure that product design language can give a person familiar with the feeling, the design process to join the human emotional factors, can simulate human thinking logic and perceptual thinking way, to ensure that smart products can be accepted and loved by people[4-6].

3. The Development Status of Artificial Intelligence Products

"Artificial intelligence" has been proposed since the 1950s and 1960s, and the Dartmouth Conference established the term AI. Now, it is the moment when artificial intelligence is shining brightly. AI has been widely used in all walks of life through intelligent voice or electronic customer service, intelligent doctor butler, intelligent household appliances, intelligent robots, intelligent assistants and other service scenarios. AI is coming to us at an amazing speed, and AI is on the way to high speed. Faced with the huge update of intelligent technology, a number of intelligent products have also been applied. Artificial intelligence products cover education, medical services, transportation, Internet retail, logistics and other fields.

With the further development of artificial intelligence technology, the level of social development is gradually improved, people's life needs and experience become more colorful, more active participation in innovative and creative activities, so that human beings and society get more full development. The ultimate goal of developing artificial intelligence is to help humans become smarter and more powerful. Artificial intelligence products show the advantages of artificial intelligence technology to a certain extent, and the products continue to innovate and shine brightly. It fully reflects that technology improves productivity and production efficiency in economic activities, and obtains more time and energy to pay more attention to the potential development of innovation, thinking, aesthetics and imagination, so as to obtain more and better intelligent products. However, there are still many security risks in artificial intelligence products. In many life consumption occasions, people's demand for personalized experience design is increasing, and personalized and customized service has gradually become an important direction of artificial intelligence product innovation. The user experience of the product more and more began to pursue relaxed, comfortable and free. In recent years, electronic devices such as face recognition, fingerprint recognition, voice recognition, intelligent assistant and robot gradually mature, through the

positioning of user information and big data analysis, enterprises to users a further step. At the same time, it also brings some negative effects. For example, the products searched in a shopping app can be accurately pushed in any app. Brushing short video can always be repeated to brush their interest in this case will lead to information leakage. It has been reported that the "swipe face" unlock switch function of a brand of mobile phone has been cracked. Through the network, personal data is easy to store and share, facilitating the search and record of personal information, credit records, positioning activity traces and other information. At the same time, people can not know the path and extent of personal privacy disclosure.

China is a world leader in AI development. But a certain difficulties for the development of artificial intelligence in our country, the advantage of our country mainly reflects in the field of application, and in the field of the core technology of artificial intelligence, such as hardware, strength is very weak in our country, the hardware at the moment we still rely on foreign imports to meet domestic demand, which makes the foundation of the artificial intelligence development of our country instability, the lack of solid foundation. The development of Chinese artificial intelligence technology lacks the guidance and drive of top talents, so we should pay more attention to technology. In general, Chinese society and people have been positive and optimistic about the development of AI, which provides an extremely favorable environment for the development of AI industry. Given the rapid development of artificial intelligence technology in a favorable environment, we should actively think and study how to build a developed and beautiful new society, promote the sustainable development of energy and resources, and let all people share the bright future created by science and technology. Artificial intelligence technology to help us to complete the work, task, efficient, fast to save time, effort, worry, more and more people want to our living environment, way of life become more highly intelligent, personalized and convenient, in terms of the current, the smart product development is swift and violent, but smart home has not been universal access, It is because there is still great room for development of artificial intelligence products in the aspects of conception, planning, design, production, manufacturing and sales[7].

4. The Design Ethics and the Design

Design is a big concept, and design is closely related to people's lives. Design ethics refers to the moral standards and codes of conduct that should be strictly required in design activities, and the establishment of correct moral values. Can promote the design ethics and nature, society and people in the benign development. Therefore, design can be better developed under the norms of design ethics.

Design is a purposeful, conscious and planned behavior. It is not produced out of thin air, but is produced according to the needs of today's society. It is limited by the society and serves the society. Being a designer requires a sense of service and ethics. The requirement of the society for designers is to design for the benefit of human beings, which reflects the designer's social responsibility, and the designer's sense of responsibility and mission. All aspects of food, clothing, housing and transportation, food and clothing need planning and design. Designers have a responsibility to bring design codes of conduct and ethics to all aspects of life, especially when it comes to artificial intelligence products. The process of design is that the designer truly considers the service object to realize his life value, reflects the meaning of design, reflects the designer's own level of design ability and social responsibility. Design is the designer's social behavior, it should have the nature of social ethics. Since Victor Papanak, an American design theorist, published "Design in the Real World", the book has put forward the ethical concept of design and clearly put forward three important principles. First, design should serve the people, not a few rich countries, design should serve the third world people. Second, design should serve not only healthy people, but also disabled people. Third, the design should seriously consider the use of the Earth's finite resources and should serve to protect the earth's resources. To sum up, design can't just focus on the small interests or simple purposes at the moment. Design must stand at a certain height and look at the overall situation, survey the core, and consider the design's short-term and long-term impact on the society, the country, and human beings. To deal with the relationship between design and designers properly, designers should be more responsible and pay attention to environmental issues, social issues and people's life issues on the premise of taking full account of the design theory. Through continuous exploration of professional knowledge, they can serve the society, the environment and the public.

Do design should abide by the three basic principles, practical, economic, beautiful. The basic principle in the specific historical stage and the specific design range, basically achieve the design purpose of people, but when we do to design a more complete and comprehensive investigation, when we are faced with high demand, we will find the design the value of the "three principles" already exist in certain defects, can't fully meet the demand of people's value. According to Maslow's need theory,

only after satisfying the basic physiological and emotional needs can people produce and pursue higher needs, namely the realization of self-worth. Under this condition, the appearance of design ethics and ethical rules can make up for the value defects and make the design reflect the most perfect value of the product. At the same time, ethical principles and economic principles, practical principles and aesthetic principles are previously complementary. Designers need to constantly analyze and master the relationship between them, the whole design process should be comprehensive analysis.

Designers must pay attention to the purpose of design before design, and think about the starting point of design by solving problems. Excellent designers will reflect on various risks of current intelligent products, make forward-looking prediction and evaluation of products, and avoid ethical conflicts and ethical deficiencies of intelligent products. The problems existing in our planet now include: air pollution, global warming, land desertification, population aging, gap between rich and poor, agricultural pollution, clothing material poisoning, and excessive use of pesticides in agricultural products, which affect our health and safety. These are the problems we should deal with at the moment, and the problems designers should solve. These problems are related to the future development of human society. In the context of economic development, artificial intelligence product design is a major trend of today's design development. On the premise of intelligence, renewable energy and materials should be used as much as possible, and local raw materials can be used when appropriate. The designed products shall be of good quality and low price, durable, extended service life, comply with the "ten principles of good design" proposed by Dietram, and focus on the personality, operation, use, safety, environmental protection and functions of intelligent products. Tailor different services for different people, and apply intelligence to each product in all aspects of the product. For example, for young women, the characteristics, shape, color, materials, process, technology, etc. of the product should be applied to make the product, people and the environment naturally blend and set off each other. Because the users are young women, full consideration should be given to women's psychological and physiological needs and price positioning. Designers should skillfully seize the opportunity of design, handle the human-computer relationship, and design more humanized intelligent products to serve mankind.

5. Conclusions

We live in an era of human-computer symbiosis, and it is crucial to handle human-computer relations. When we use and enjoy various advantages and conveniences brought by artificial intelligence products, we should also have a clear understanding of the accompanying ethical conflicts and problems and take appropriate and positive measures to deal with them.

People's expectation for intelligent products is to create intelligent machines or intelligent products that have the same ability of independent learning as human beings, such as thinking logic and perceptual thinking. The purpose is to cultivate and expand human's ability of independent thinking. Intelligentization is to facilitate people's life, rather than bring some negative values to life. Grasp the correct guidance of design ethics, seize the opportunity of design, so that designers have a high sense of social responsibility, participate in the construction of design theory, and make artificial intelligence better serve human beings and be loved by people.

References

- [1] Jianwei Guo, Wenzhuo Wang. *How to avoid the ethical problems brought by artificial intelligence [J]. People's Forum*, 2018 (31): 56-57.
- [2] Zicong Li, Lanlan Gao. *Humanized modern design from the perspective of ethics [J]. Beauty and Times (Part 1)*, 2020 (11): 8-10.
- [3] Xiaoyan Luo. *Academic reflection on Ecological design [J]. Art Review*, 2012 (08): 125-127.
- [4] Songrong Jiang: "Ethical Principles" of Design [J]. *Design*, 2019, 32(24): 70-71.
- [5] Yiyi Zhao. *Research on aged care products based on design Ethics [D]. Nanchang University*, 2019.
- [6] Ye Ying. *Ethical Considerations of Sericulture Cultural and creative products in Cultural and creative design from the perspective of design ethics [J]. Cultural Industry*, 2022 (25): 130-132.
- [7] Wei Xuyan. *Analysis on the Sustainable Development Path of National Tide Cultural Creativity from the perspective of Design Ethics [J]. Beijing Cultural Creativity*, 2022(03): 34-39.