

Ethical Research on the Development of Artificial Intelligence Based on the Background of the New Era Internet

Yiyuan LI

(School of Literature and Journalism, Xiangtan University, Xiangtan, Hu'nan 411105, China)

Abstract: People in the new era have generally entered the advanced Internet era, and in the context of the vast Internet, big data and artificial intelligence have invariably entered the scope of human production and life practices. With the development of science and technology and advanced culture today, technological innovation and industrial revolution are also progressing, the human research field is constantly innovating, and the technological era of the production of a continuous stream of products. Among these huge innovations, the development of artificial intelligence is particularly prominent, which plays a subtle role in the fields of machinery, manufacturing, logistics, aerospace and aviation. This study takes the ethical problems in the development of AI as the object of research in the context of the new era of the Internet boom, introduces an overview of AI, analyzes the ethical problems and reasons for the development of AI in the Internet era, and proposes solutions and measures to address these ethical problems, so as to guide AI to maximize its benefits for human beings' aspirations for a better material life.

Keywords: New era, Internet, Artificial intelligence, Ethics

I. Overview of Artificial Intelligence

The concept of Artificial Intelligence can be traced back as far as the 1950s, and its introduction has undergone a ten-year grueling journey. When artificial intelligence was first proposed, very few people knew its content and meaning, and it was almost unknown, however, after decades of development, in today's Internet, artificial intelligence is almost unknown, and it has become a household hot topic, and it has really become a discipline that people deserve to study and expand.

Artificial intelligence (referred to as AI)^[1], from the literal meaning of it is not difficult to know, it is based on the development of human intelligence research, the combination of computer science and

artificial neurology, the analysis of human intelligence, the ability to mimic the development of human intellectual behavior of a new discipline. Artificial Intelligence is a new and innovative science that is very representative of the Internet era, which integrates aspects of natural language processing, computer vision processing, machine learning and artificial neural networks to create new intelligent machines. Natural language is the most primary and primitive state of language that has not been digitized, and natural language processing is to digitize this language through the data end to form a language that can be recognized by machines^[2]. Computer vision processing is to utilize the visual function of computers to mine and process some data

information that is useful for research. Machine learning is the use of machines to integrate and process relevant data information through mathematical programming. Lastly, there is artificial neural network, which is by imitating the human neurological organization structure and brain construction system, it is the artificial intelligence that can have artificial intelligence that is very similar to human beings.

II. Ethical Issues and Causes of Artificial Intelligence

2.1 Ethical Issues with Artificial Intelligence

2.1.1 Human rights ethical issues

Human rights are inherent in every human being, and every human being has human rights, which emphasize the principle of equality of all people and are characterized by universality. In recent years, the rapid development of artificial intelligence and scientific computing big data has made artificial intelligence more than just experiments, it has also begun to move to the field of people's lives, affecting people's production and life^[3]. There is a common notion among modern people that artificial intelligence can solve all the difficulties in life, can complete a series of work on the program, and is profitable for people in their work, study and life. But in fact, artificial intelligence is not as flawless as people imagine, most of this conception of people comes from science fiction movies, influenced by science fiction movies, and lack of observation of real life. In the age of the Internet, artificial intelligence does provide greater convenience for people's production and life, but whether human rights are also threatened by artificial intelligence. Whether the status of artificial intelligence will be equal to that of human beings, or whether artificial intelligence will have human rights, this is a question for modern people to ponder. Whether artificial

intelligence can break through the limitations of science and technology and produce feelings like human beings, posing a great challenge and threat to the human rights ethics of human beings, and whether it has challenged the bottom line of the human rights ethical issues, is a question that deserves our deep thoughts and research.

2.1.2 Economic and ethical issues

With the continuous and rapid development of artificial intelligence, today's economic field is basically full of artificial intelligence technology, which is more and more widely used in economic development and has more and more far-reaching influence. The so-called economic and ethical issues are actually the combination of economy and ethics, forming a cross-cutting issue of economy and ethics^[4]. Modern artificial intelligence technology, such as Meituan APP, the use of the application software, people can enjoy a series of fast services, taxi, order takeout, booking hotels, eat, drink and play, can be carried out on the APP, which obviously pulls the consumption of the society, stimulates the growth of the economy, and to a great extent reflects the favorable contribution of artificial intelligence for the economic field. Another example is a very popular taxi software - drop taxi, which provides convenience to people at the same time, compared with the traditional taxi, even if the starting point and the end point are the same, the price of drop taxi is higher than the price of traditional taxi, some of the old users, in the drop taxi on top of the cost can reach tens of thousands of dollars per year, and the use of the time has reached several years. Some old users, who spend tens of thousands of dollars a year on DDT and have been using it for several years, have not enjoyed any discounts. In the view of people with traditional concepts, old customers should enjoy the discounts brought by artificial intelligence, but in

reality, this is not the case, and the prices for old customers are even higher than those for new users, in order to encourage more newcomers to use the software, thus creating the so-called “killing acquaintances”, which is contrary to the traditional ethical concepts. To a certain extent, this also shows that the operation of artificial intelligence in the industry can not be realized openly and transparently, and also exposes the impact of the newly developed artificial intelligence technology on traditional concepts^[5].

2.1.3 Ethical issues of privacy and security

Although the rapid development of artificial intelligence has brought great convenience to human life, a lot of human identity information and effective privacy data also exist in the products of artificial intelligence, so the privacy security and ethical issues have become a hot topic of concern. Artificial intelligence data technology can collect all effective data of human beings, for example, when using cell phone input method, the keywords that people often talk about will be recorded, and the phrase will be automatically popped up when they input next time, or when they open the input box, it will automatically recommend the corresponding topics according to the content that people usually input, which should trigger us to think about whether our privacy is being leaked out without us realizing it? When we use artificial intelligence products, such as some applications, social software, payment software, etc., we need to register our personal information, including name, identity card number, cell phone number, etc. If this important information is leaked out and falls into the hands of lawless elements, it will cause an unpredictable threat to the safety of our property, and even personal safety. Therefore, in the context of the Internet, the ethical problems caused by artificial intelligence to our privacy and security

need to attract the attention of our users.

2.1.4 Ethical issues of intellectual property rights

Nowadays, the algorithm-driven natural language processing system ChatGPT is improving, and the negative impact of ChatGPT writing is gradually seeping into the field of literary work creation and publication, leading to the emergence of the phenomenon of creative misconduct^[6]. First of all, the subject of ownership of AI writing is controversial. Although artificial intelligence can generate new content, but legally artificial intelligence does not have the status of a legal subject, can not create independently, and the text it generates needs to be modified and perfected by human beings before it can be delivered, resulting in ambiguous attribution of ownership of works. Secondly, AI writing may involve the risk of violating the original author's copyright. If the AI uses a copyrighted work in the training process without obtaining authorization from the original author, it may constitute an infringement. In addition, AI-generated works face challenges in terms of copyright protection, as the degree of human involvement in the creation process affects the protection of the work. Finally, content created by AI may be biased or discriminatory, raising ethical issues. The creation of AI relies on training data that may be historically biased or socially stereotyped, leading to inappropriate expressions of values in the work, which requires in-depth ethical consideration and regulation.

2.2 Reasons Why Artificial Intelligence Raises Ethical Issues

2.2.1 Limitations of the technology

Nothing in the world is flawless and so is artificial intelligence technology. Even in today's extremely advanced science and technology, AI technology also has its drawbacks. Artificial

intelligence is a human creation and invention, so it also has the same human unexpected defects. Artificial intelligence is the product of human machines^[7], so it lacks the abstraction ability that humans have, and it can be said that the abstraction ability of artificial intelligence is not as good as that of a child. Therefore, the limitations of artificial intelligence determine that it provides convenience for human beings while there are many technical limitations, and these limitations will exist for a long time, and human beings can only continue to improve, but not completely eliminate. Because of these limitations, there are also a series of ethical issues that exist and arise when people use products created by AI.

2.2.2 Lack of ethical rules

With the rapid development of artificial intelligence, preliminary artificial intelligence products have been gradually integrated into people's lives, however, advanced artificial intelligence is also in the process of continuous research and development. The current AI products can simply provide people with convenient services, and can communicate with humans in a simple way, and can even talk about love with humans, but this kind of love can't be compared with the love between human beings, because the AI is a machine product without feelings, and all of its words and behaviors are accomplished through the program, which is completely controlled by human beings. Humans did not set the ethical rules in when they created the AI product, so the AI is an artificial product that lacks ethical rules, and every sentence it communicates with humans is the operation of the program input by humans, and it chooses a set of the best program among the many to carry out the question-and-answer communication mode. To set up the ethical rules of artificial intelligence requires

ethicists, philosophers, biologists, and specialized computer technicians to work together, which is a very huge scientific problem, and with the current state of scientific development, there is no company or any technology that can create such a robot.

III. Solutions to the Ethical Problems of Artificial Intelligence

If we want to solve the ethical problems of current AI and overcome the limitations of current technology, it is not only a matter for scientists, but also a common responsibility of all citizens. For AI research and development scientists, what they need to do is to break through the current technological limitations and manage modern AI technology and products more scientifically and rationally, however, for all citizens, what we need to do is to improve the quality of citizenship, strengthen the sense of social responsibility and fulfill the obligations of citizens. This requires the joint efforts of people around the globe to break through the barriers and realize the high-quality development of AI.

3.1 Scientific management of artificial intelligence products

Science and technology personnel need to strengthen the supervision of the AI research and development process and manufacturing process to avoid the creation of research and development loopholes. If you want to manage the safety and other ethical issues that exist in artificial intelligence in a scientific and standardized way, you need to eliminate any potential risks and strengthen the control and prevention of network security. For example, in recent years, the very popular artificial intelligence technology - unmanned technology^[8], this technology has a very large security risks, if there is a little bit of vulnerability in the research and development process, there will be many ethical problems. In the process of unmanned driving,

artificial intelligence needs to recognize the road safety situation, but also to prevent the invasion of hackers, to ensure that the hacker attacks can be intercepted and broken, so as to prevent the emergence of unsafe ethical issues. In addition, it is also necessary to establish a perfect system of accountability. The emergence and resolution of the ethical problems of artificial intelligence cannot be separated from a complete institutional system to ensure the long-term survival of artificial intelligence. Therefore, each AI product should have a set of independent identification code, each identification code corresponds to its AI product, and the information contained in the identification code includes the information of the manufacturer and the inspector, so that in the event of accidents and ethical problems of the product, the information can be found quickly and the relevant responsibility can be pursued. Being able to find and trace the person in charge of the accident in the first time can favorably safeguard and improve AI technology and reduce the occurrence of ethical problems.

3.2 Enhancing the ethics of scientists

In order to minimize and avoid ethical problems of AI technology, there are strict requirements for both scientists and all citizens. For scientists, there is a need to strengthen the sense of social responsibility of scientists, and reverence for science and technology is the spirit that every scientist should have. Scientists should realize from the bottom of their hearts that the technology of artificial intelligence is a double-edged sword, which can bring benefits to human beings as well as affect human security, and therefore a set of standard ethical guidelines needs to be set in the design of AI products. At the same time, it is necessary to strengthen the moral and ethical construction of scientific researchers, enhance the sense of scientific

responsibility, not to give in to monetary interests, and to be a moral model for scientific researchers, so as not to be driven by profit to violate the ethics of the production of AI products. In addition, scientists should also have the moral spirit of love of peace, love of development, love of the cause, so as to reduce the ethical problems of artificial intelligence in the context of the Internet in the new era.

3.3 Enhancing the ethical literacy of the population

For the general public, if they cannot achieve a full understanding of artificial intelligence, it is easy to cause many ethical problems, so they should strengthen the people's understanding and awareness of the products of artificial intelligence, so that they can have direct contact to learn the knowledge of artificial intelligence, learn to use artificial intelligence, and enhance their knowledge and literacy of ethical issues, so as to guard against the emergence of many ethical problems. Government departments should strengthen the guidance of the people to avoid prejudice against AI or prevent them from completely trusting the functions and roles of AI, look at AI technology rationally, and improve the cognitive level of citizens. Therefore, enhancing the ethical literacy of the general public is also an effective way to reduce the ethical problems of AI.

3.4 Raising legal awareness among the public

In the context of the new era of the Internet, the wide application of artificial intelligence technology not only promotes rapid social and economic development^[9], but also raises many ethical and legal challenges. For the public, raising legal awareness of AI ethics is the key to dealing with these challenges and safeguarding individual rights and interests as well as social harmony and stability.

First of all, the public should strengthen the study of the basic theories of AI ethics. Through

in-depth study of relevant academic literature, they should understand the development history, basic principles and core concepts of AI ethics, as well as the embodiment and application of these principles in the legal framework. This helps the masses to form a comprehensive understanding of AI ethics and lays a solid foundation for the enhancement of legal awareness. Second, the masses need to pay close attention to the dynamics of laws and regulations related to AI ethics. The government and related organizations will continuously introduce new policies and regulations to regulate the development and application of AI technology. The masses should obtain such information through official channels, understand the legal definitions and regulations on AI ethical issues, and clarify their rights and obligations in AI applications. In addition, the masses should actively participate in public discussions on AI ethics. Through social media, academic forums and other channels, they can share their views on AI ethical issues with others, learn about different viewpoints, and promote the collision of ideas and exchange of views. This helps to broaden the public's vision and enhance their sensitivity and judgment of AI ethics issues.

All in all, in the context of the new era, to raise the public's legal awareness of AI ethics, it is necessary to continue to learn, pay attention to developments, and actively participate in discussions, in order to form a comprehensive, in-depth, and rational legal cognition, and to contribute to the healthy development of AI technology and the harmony and stability of society.

IV. Conclusions

Artificial intelligence in the context of the new era of the Internet brings great convenience to human beings, but also brings many ethical and legal problems to human beings, so that people's

traditional conception that artificial intelligence can be completely trusted, or there are conceptions that artificial intelligence is not trustworthy. At the same time, the technical deficiencies of scientists in human research and the lack of awareness of ethical rules among the public have caused human rights ethical issues, economic ethical issues, and privacy and security ethical issues of artificial intelligence.

Therefore, in order to make AI flourish in this era of extremely advanced Internet, it is necessary for the government, scientists and all the people to work together. The government should strengthen the legal system and improve the legal system to protect the smooth use of AI products, safeguard the privacy and property safety of the public, and clarify the responsibilities of producers so that they can realize the consistency of their rights and responsibilities and maintain the permanent and sustainable development of AI. Scientists should clarify their sense of responsibility, actively overcome and break through technical difficulties, and not lose the interests of all citizens for their own tiny interests, so as to produce AI products that are more adapted to the context of the Internet in the new era, so that every member of the public can enjoy as much as possible the great benefits and conveniences brought by AI. The general public should look at AI in a scientific and rational way, not relying on AI completely or looking at AI from a traditional perspective, but advancing with the times, keeping up with the trend of the times, and being able to rationally judge the advantages and disadvantages brought about by AI, and enhance their own quality construction, so as to minimize the ethical problems of AI as much as possible, and make their due responsibility and contribution to the reduction of the ethical problems of AI.

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