On The Criminal Prevention Path of Weak AI

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Abstract— The concept of artificial intelligence has emerged in recent years, and artificial intelligence has gradually entered our social life. Artificial intelligence is divided into strong artificial intelligence and weak artificial intelligence. Although weak artificial intelligence cannot achieve automation completely out of human control. However, it is undeniable that with the wide application of weak artificial intelligence, weak artificial intelligence may combine with traditional criminal modes and make the degree of infringement of criminal legal interests change quantitatively. Therefore, in order to effectively prevent weak ARTIFICIAL intelligence criminal crimes, we should analyze the composition of weak artificial intelligence, presuppose the possibility of crimes under weak artificial intelligence, and carry out preventive legislation.

Keywords— Weak artificial intelligence, crime, preventive measure.

INTRODUCTION

First, the concept of weak artificial intelligence in the law: The concept of artificial intelligence was first proposed in the 1950s. In 1956, when scientists sold Carthy and Minsky met Dartmouth College, they discussed "how to simulate human intelligence", and the concept of "artificial intelligence" (Artificial Intelligence) " was proposed at the conference, marking the birth of the AI discipline. After decades of development, artificial intelligence has been integrated into today's technological era. The understanding of the concept of artificial intelligence can not be understood simply as a specific machine or technology, but as a combination of ideology and entity. In fact, artificial intelligence includes three core elements: deep learning algorithms, high-quality data collection, and high-performance computing capabilities. The development of artificial intelligence technology mainly relies on high-quality big data, including the collection and use of sensitive data.[]According to the complexity of the algorithm, AI can be divided into strong AI and weak AI. In different algorithms, the identification of strong and weak artificial intelligence in the criminal law is also different. Strong artificial intelligence has an independent will, and can achieve independent behavior beyond design and programming. On the contrary, weak or weak artificial intelligence robots are more identified as intelligent robots or applied robots in the restricted field, more as the extension of human behavior, and act as the role of tool nature. Weak artificial intelligence has gradually integrated into our social life. For example, there are driverless cars in the transportation field, surgical robots in the medical field, and artificial intelligence products put into use in the financial field. Although weak AI is regarded as a new scientific technology and identified as a criminal tool in criminal law, like network computer crime, the criminal risks brought by weak artificial intelligence should not be ignored.

CRIMINAL RISK UNDER WEAK AI

A. *The degree of legal benefit infringement changes quantitatively*

Entering the new century, our society has entered the third generation of scientific and technological revolution, the network Internet has entered various fields such as our production and life, for example, digital control technology, network payment technology and so on.And the integrated application of these technologies in criminal behavior, in addition to creating new criminal behavior, but also brings a greater legal benefit infringement.Although the rapid development of Internet technology will not make all "upgrade" traditional crimes, it will indeed make "change" the harm of some traditional crimes.[]For example, in the opening of casino gambling crime combines the Internet and payment technology, the amount of gambling can easily reach huge standards, aggravates the degree of legal benefit infringement, but also increases the cost of fighting crime.As a branch of computer science, artificial intelligence will obviously upgrade the harm of the above crimes again, because artificial intelligence technology can easily complete the indicbehavior of the perpetrator under the help of algorithms, data and computing ability, and even achieve "semi-automatic crime" to a certain extent.

B. *New forms of crime*

As mentioned above, AI is a composite science and technology around which the derived form of crime is multifaceted.Longitudinal, artificial intelligence around big data, super computing ability and deep learning algorithm, however, the three may become criminals, for example, on property crime, damage big data system or illegally obtain data after data integration may be convenient for criminals to achieve fraud, theft and other criminal behavior.Longitudinal, weak artificial

intelligence has entered many of our production and living fields. For example, the driverless, automatic parking and human-computer interaction in the traffic field.In the medical field, AI arms can already facilitate people with disabilities.People with disabilities can control their robotic arms with electric brain waves.However, when using the above artificial intelligence technology, criminals can also use these technologies to achieve the criminal purpose of intentional injury or intentional homicide, and when the result of the crime occurs, the responsibility of the perpetrator and the technology developer is a problem that needs to be solved by the criminal law.Therefore, even if the value of weak artificial intelligence can only be reflected in the use of tools, combined with traditional criminal acts, the diversified crime forms and the multiple division of responsibility division still bring different thinking to the development of criminal law in the era of artificial intelligence.

THE REGULATION DIRECTION OF THE CRIMINAL LAW ON THE WEAK ARTIFICIAL INTELLIGENCE

A. *Keep the criminal law modest*

Humility of criminal law is the basic principle throughout criminal legislation and criminal justice, as is true for criminal legislation under weak artificial intelligence.The humility of the criminal law has a multi-angle understanding.The modesty of criminal law refers to that lawmakers should strive to effectively prevent and control crime with the minimum expenditure —— of less or even without punishment (replacing other penalties) to obtain the maximum social benefit of ——.From this perspective, criminal legislation should take account of its legislative benefits, that is, there are other legal measures to prevent and control the priority of other legal measures to avoid the abuse of criminal legislation.In addition, the criminal law scholars represented by the Japanese scholar Longichi Hirano also have different interpretations of modesty. He believes that the modesty of criminal law has the following three meanings: " First is the supplement of the criminal law, even if matters concerning public security, can only when other means such as habits, moral sanctions, namely informal control of regional society or civil regulation is insufficient... the second is the integrity of criminal law. If the criminal law is considered as above of a supplementary nature, the situation of initiating the criminal law is naturally... incomplete. The third is the tolerance, or free respect, of the criminal law. Even if the safety of the public is violated and other means of control are not come to full play, it is not necessary to punish without omission. In modern society, people cannot survive without more or less infringing on others, and therefore, people must somehow tolerate each other with the invasion of others. If all violations are prohibited, in turn, it is easy to hinder the activities of the individual." From this point of view, the humility of the criminal law emphasizes more on the severity and final means of the criminal law itself.[]Standing in the future point of view, weak artificial intelligence and even strong artificial intelligence will gradually integrate into various fields of society, and the manufacturing and use of artificial intelligence has certain legal risks, need to adjust accordingly, and the adjustment of criminal law should be when other departments can not adjust or adjust the effect is not good to apply.

B. *Institutional prevention*

In the first two industrial revolutions, the legislation did not "give up eating for fear of choking", did not prohibit the industrialization process because of major industrial accidents, instead, determined the nature of responsibility, the division of responsibility from industrial accidents.For example, in China, for the crime of dangerous driving, the crime of obstructing safe driving, the crime of railway operation safety accidents, major safety flight accidents in the transportation field, the crime of major responsibility accidents, the crime of dangerous operations and major labor accidents in the field of production, major labor safety accidents.These criminal legislation is reflecting the criminal legal problems reflected by the scientific and technological revolution, and the criminal law should be comprehensive legislation.Different from the previous two industrial revolutions, artificial intelligence under the today's scientific and technological revolution reflects more intelligence than automation.The difference of this characteristic should bring a brand new thinking to the criminal legislation idea.The author believes that the criminal legislation under the first two industrial revolutions follows the thinking of criminal structure elements and criminal responsibility because of the harm results, and the criminal legislation under the scientific and technological revolution should be different, and the criminal legislation will be laid in each position of the composition of science and technology.Take weak artificial intelligence as an example, weak AI includes algorithms, data and computing capabilities, and these three parts, from a perspective of prevention, also have certain legislative value.From the perspective of the algorithm, the design direction, use scope, application subject of the algorithm should have the corresponding regulatory system.From the perspective of data, the collection, application scope and use fields of data are also worth legislative inquiry.

B. Explore the "upstream and downstream crimes" of related crimes

As noted above, weak AI crimes involve a very wide range of areas, and these areas themselves have corresponding criminal legislation.For example, in the field of transportation, automobile intelligence has become the development direction of many car companies, such as face recognition and unlocking, voice awakening, automatic assisted driving and other artificial intelligence technologies have been put into many vehicle production.The application of these technologies improves traffic convenience, but it also buries certain criminal risks.The design of technology is always improving, but its relative aspect is that technology always has defects to be improved, and the occurrence of too many traffic accidents in the application of automatic auxiliary driving, causing serious consequences.If the severity of the consequences reaches the criminal standard and constitutes the crime of traffic accident, then the crime about weak artificial intelligence technology will become the "upstream crime" of the traffic accident crime.And so on, such as the medical field and the financial field, with the continuous penetration of artificial intelligence into various fields of those, it is an inevitable problem of exploring the correlation and criminal allocation of this " upstream and downstream criminal legislation.

CRIMINAL PREVENTION PATH

A. Establish a complete crime prevention system

The development of artificial intelligence is changing with each passing day, but the criminal legislation cannot be changed overnight. How can the relatively fixed criminal legislation realize the regulation of AI crime to the maximum extent?The establishment of prevention system or become an effective path to regulate weak AI crime.The application of artificial intelligence technology is interlinked, the setting of the algorithm, data collection, the depth of artificial intelligence technology applied in various fields, and these links have certain criminal risks, in addition, in the digital future, these invisible technology may also be attached economic value is identified as property.Therefore, if artificial intelligence technology is to develop and applied in an orderly way to avoid artificial intelligence crime, it should be prevented from the leading component of artificial intelligence, and realize the application and development of science and technology is in line with legal value.

B. Additional charges

At present, because the artificial intelligence technology has been heavily invested in various fields of production and life, the application of artificial intelligence technology legislation may be the need of the current criminal legislation.The author more agrees with Professor Liu Xianquan's view, adding the crime of abuse of artificial intelligence products and the crime of artificial intelligence product accident.[]The crime of abuse of artificial intelligence products focuses on punishing the perpetrator for intentionally using artificial intelligence robots to commit crimes, while the crime of artificial intelligence product accidents focuses on punishing the perpetrator that seriously harm social consequences due to negligence.[]This legislative direction is also in line with the actual situation. On the one hand, existing AI products can only be used as criminal tools for the perpetrator. On the other hand, there will be violations of the use of AI products to cause serious harmful results. Therefore, it is a feasible path for the criminal law to effectively regulate the artificial intelligence crime, maintain social order, and reasonably plan the responsibility of artificial intelligence crime from the perspective of intentional and negligence.

CONCLUSION

Although weak artificial intelligence can only be operated as a tool of great value in the economic and social operation, it cannot be ignored that the intelligence of weak artificial intelligence itself will also change the number of results that harm the society.Compared with the century-old industrial revolution, the legislation in the direction of artificial intelligence may only stay in an embryonic stage, but crime prevention and maintaining social order is the purpose of the criminal law. The criminal risk of weak artificial intelligence cannot be ignored, and it needs to be further discussed and improved.

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