

The Challenges and Response of Criminal Proceedings in the Era of Artificial Intelligence

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Abstract:

The advent of the era of artificial intelligence has made the judicial trial process get many convenience. Especially at present, the large number of cases, the judicial organs trial pressure is too large, the addition of artificial intelligence, has greatly relieved the work pressure of judicial personnel. But then there came a series of problems. Compared with civil cases and administrative cases, criminal cases involve the more important legitimate rights and interests of the parties concerned, so the trial should be more cautious. However, the application of artificial intelligence may cause the illegal transfer of judicial power, the formation of solidified thinking leading to the unfair judgment, and the substantive infringement of the rights and interests of the accused person. In the face of many challenges brought by artificial intelligence to criminal proceedings, the process and requirements of artificial intelligence participation in the judicial process should be clarified through law, the auxiliary and limited principles of artificial intelligence should be determined, and the human rights protection under the application of artificial intelligence should be strengthened.

Keywords:

Artificial Intelligence, Judicial Trial, Human Rights Protection

1. Introduction

At present, big data and blockchain technology are deepening, and the era of artificial intelligence has arrived. People's lives are greatly affected by science and technology. The judicial process also inevitably faces the impact and challenges brought by artificial intelligence. Especially in criminal proceedings, because the trial involves important rights and interests such as personal freedom of the parties, more attention should be paid to the changes brought about by the era of artificial intelligence. [1]Therefore, how to follow the law of criminal proceedings and respond to the series of challenges brought about by the development of artificial intelligence is a problem that we must think carefully and treat seriously. Under this balance, we can better establish and improve our country's criminal procedure system.

2. Challenges that AI Brings to Criminal Proceedings

2.1. The dependence of judicial personnel on artificial intelligence will lead to the illegal transfer of judicial power

First of all, the law clearly stipulates that the exercise of judicial power is the people's court. Therefore, the actual judge of the case is mainly the judge, and the jurors will try and determine the facts of the case. But the emergence of artificial intelligence, it broke the existing provisions of the law. Although many people think that the use of artificial intelligence in judicial trials is only instrumental, it can only be characterized as a tool used by judges and reviewing jurors in hearing cases. But in fact, the participation of artificial intelligence in the judicial trial process has gradually exceeded the role of a tool, and in fact, the involvement in the trial of cases has been continuously deepened. This inevitably leads to the limited judicial power of the judge in the process of hearing the case, resulting in a substantial transfer of power. This kind of transfer is of no legal guarantee, and there are many hidden dangers. The law stipulates that judges should try cases independently in the hope that the cases can achieve fairness and justice through the professional quality of judges. However, whether the calculation results of artificial intelligence involved in the handling of cases are fair and just, judges cannot accurately judge through their own professional knowledge. [2] The reliance on artificial intelligence will lead to the substantial conversion of the judicial power of case handling to the combination of judges and artificial intelligence.

2.2. Unfair trial possibly caused by the fixed thinking of artificial intelligence

Artificial intelligence is fundamentally an algorithm, which is designed and programmed by people as designers. And the "person" here is not a person in the general sense, and cannot represent the general person. The "people" here are the concrete people. [3] Because it is a specific person, there must be a subjective consciousness, at least to some extent, a bias. This bias is unavoidable. If this bias cannot be eliminated, it will mean that if the outcome of a criminal trial is completely dependent on or mainly depends on the results of artificial intelligence, then the outcome of the trial will also have some bias. Whether this bias is beneficial to the accused person, or unfavorable to the accused person, it cannot achieve the fairness and justice pursued by the judiciary. In addition, if the judiciary accepts the use of artificial intelligence in the judicial trial process, the judicial judges also do not actually have the ability to avoid such unfair results. With the help of certain intelligent tools, the judge follows a certain unified regulation, which does not mean that the judge himself understands the principle behind the intelligent tools and the process of checking the calculation. [4] Therefore, the judge is not able to avoid the wrong results. Compared with civil litigation and administrative litigation, the disputes and punishment involved in criminal litigation need the judge's caution. Therefore, we also need to be careful when using smart tools. In criminal cases, the case involved is more complex, and the sentencing circumstances are varied. Seemingly similar cases may make a huge difference in sentencing because of a small difference in them. Therefore, in criminal cases, the discretion of the judge is very important. Current intelligent tools, more can play a more auxiliary role. Therefore, in the fact that some cases do not directly determine the conviction and sentencing judgment, intelligent tools can be reasonably used to analyze and clarify the case. [5]

In the more core problems, the use of intelligent tools is very likely to cause unfair results. There is no way for current technology to solve this problem.

2.3. The monopoly use of artificial intelligence will infringe on the legitimate rights and interests of the accused person

Big data, blockchain and other artificial intelligence technologies are currently very ahead of the technology, even as a country as a whole, the application of development and application are also advanced. For the ordinary people, there is no economic strength, scientific and technological level to access and use these technologies. Therefore, in the current judicial practice, the application of artificial intelligence is actually basically monopolized by the public security law. As the prosecution of the case, there is obviously no opportunity to use artificial intelligence technology to serve their own defense process. [6] This necessarily leads to an unfair phenomenon. The accused person itself is in a relatively weak position in criminal cases. Under the influence of artificial intelligence, it even lacks the convenient conditions such as information collection. For the information collected and query results obtained by judicial organs through artificial intelligence, the complainants are largely unable to accurately identify and even refute the information. Then the judicial organs will widen the gap between the prosecution through the assistance of artificial intelligence. It becomes even more difficult for the prosecuted people to use effective information and ways to defend themselves. For example, some predictive tools used in dealing with cases by the investigation organs will cause some potential infringement on the accused person. Investigators enter a large number of keywords through predictive tools to search, and analyze the resulting criminal portraits, which may both increase the incriminating tendency of the accused person. This kind of information is transmitted to the judge by layers, which is likely to cause some subjective judgment on the judge. For this potential impact, the accused has no way to remove the subjective impression of this potential suspicion by the evidence he has himself provided. The worst result may constitute a material infringement of the right of innocence. In addition, the wide application of big data can gradually for each accused to form their own character evaluation, the evaluation may involve the possibility of crime, etc., the judge will decide according to the evaluation results to arrest, etc., the application of the big data seems to facilitate the judge's trial work, accurate sentencing results, but essentially is likely to exist for some conditions are accused of prejudice and discrimination. [7] There is no room for the prejudice and discrimination formed in the use of such artificial intelligence to be defended by the accused.

3. Response to China's Criminal Proceedings in the Era of Artificial Intelligence

3.1. Clarify the process and requirements of AI participation in the judicial process through laws

With the deepening of artificial intelligence, the application of intelligent technology to all aspects of society is inevitable. We should not refuse to use artificial intelligence just because of some problems existing in its judicial application. In the process of use, the first thing to be clear is the legitimacy of the use of artificial intelligence. We need to face up to the status of artificial intelligence and not use it as an auxiliary tool. In judicial practice, the use of artificial intelligence has actually

affected the active judgment of judges. [8] Therefore, the development and practical application of artificial intelligence technology play a regulatory role. In criminal proceedings, the relevant provisions of the use of artificial intelligence should be regulated. For example, for the application of artificial intelligence in the field of criminal investigation, the applicable conditions, procedures and applicable results of artificial intelligence should be clearly stipulated through the Criminal Procedure Law and the internal documents of the investigation organs. The applicable results need to be clear that under the conditions and procedures, the results of artificial intelligence are legal and effective, and in which cases, the results cannot be used. In criminal proceedings, it is necessary to regulate the use of artificial intelligence by public power organs to exercise their power through the provisions of law.

3.2. Clarify the principle of accessibility and limitation principle of the application of artificial intelligence

Through the explicit provisions of the law, it is necessary to clarify the two principles of using artificial intelligence in the judicial process, namely, the principle of subsidiarity and the principle of finiteness.

3.2.1. principle of subsidiarity

In criminal proceedings, it is necessary to emphasize the initiative of the judge. Tensors need to maintain their dominant position in the course of the case. Artificial intelligence only plays an auxiliary role in the process of judicial trial, and can not have substantial restrictions and obstacles to the judge in hearing cases. In the trial process of criminal cases, the changes of the case circumstances will lead to great changes in the results of the case. However, the current data analysis of artificial intelligence can not be carefully differentiated. When it encounters similar elements, it will be automatically classified into the same operation result. This mode of operation does not apply to criminal trials. And, in the trial of criminal cases. There is a high standard for the judgment of the evidence. It is necessary to find beyond a reasonable doubt the facts on the basis of the evidence of the whole case. This comprehensive judgment requires judges to conduct a comprehensive analysis and judgment based on the overall case, and the logic of the application of artificial intelligence is the digital computing under the complete elements, especially the standard of "beyond reasonable doubt" clear by the law, which is highly subjective in essence. Digital algorithms are unable to do this work. Although the current artificial intelligence technology in constantly to people's thinking simulation and close, but its essence is the use of computing, even if the current artificial intelligence technology has been gradually able to make intelligent machine to independent analysis and upgrade, but from the judge cases the subjective initiative has a big gap. Therefore, the current application of artificial intelligence in criminal proceedings is mainly the logical thinking and mathematical calculation used in reviewing the evidence. This simple use of computing can save a lot of time through artificial intelligence, and save a lot of judicial resources while ensuring the correct results. [9] It should be made clear that the provisions of the legal provisions are not rigid, and the data of the past cases cannot be very fully interpreted. Therefore, artificial intelligence should only play an auxiliary role in criminal proceedings, but can not replace the subjective initiative of judicial staff and investigators.

3.2.2. Principles of finiteness

Objectively, the current application of artificial intelligence in criminal proceedings itself has limitations. When the investigation organs and the judicial organs use artificial intelligence to review the evidence of cases, they mainly rely on massive data information, algorithms and expert experience, transform the evidence requirements of a certain charge in the way of a mathematical model, and get the case handling assistance system through the model combination, which can improve the efficiency of evidence review. Therefore, when reviewing the evidence with the help of artificial intelligence technology, the focus of the review is on the specifications of the evidence, that is, the basic evidence, evidence collection requirements and types of evidence required for conviction and sentencing. [10] In the process of the substantive review of the case, the important thing is the judgment and adoption of the evidence, whether the evidence is legally collected, whether the evidence is related to the facts of the case, whether the evidence can prove the facts of the case, etc. On these issues, the subjective judgment of the investigators and the judicial personnel is still needed. The role of AI in this area is currently very limited. Specifically speaking, the review of evidence standards not only requires logical judgment, but also requires the use of various legal methods, such as legal reasoning, loophole filling, etc., but also requires the use of a variety of thinking methods. The application of these methods requires human thinking to carry out, and the operation of human thinking simulated by artificial intelligence cannot adapt to the actual needs of criminal proceedings. Of course, with the further development of artificial intelligence, perhaps the future artificial intelligence will transition from weak intelligence to strong intelligence, and can be used in more and more aspects and space in criminal litigation. In this case, the scope of AI should be clearly limited through law. The purpose of using artificial intelligence in criminal proceedings is to improve the efficiency of judicial judgment and increase the accuracy of judicial trial. The auxiliary application of artificial intelligence is not intended to replace judges in judge independently. Therefore, the application of artificial intelligence needs to be moderate and choose suitable areas for its application.

3.3. Strengthening human rights protection under the use of artificial intelligence

Under the application of artificial intelligence, it will lead to a huge gap between the status of the prosecution person and the prosecution party. If the application of high and new technology is only provided to the investigation organs and judicial organs, then the monopoly of technology will lead to the prosecuted party being unable to protect their legitimate rights and interests from infringement. Therefore, to prevent the occurrence of this technology monopoly, the artificial intelligence technology can serve other private subjects in addition to serving the public security organs, and to achieve a substantial balance. In the investigation stage of the case, the lawyers and the parties shall be given the full right to know, participation and retrospective technology for the use of artificial intelligence in the investigation organs. Lawyers or parties have the right to request the investigation organs to make technical backtracking of the questionable evidence for the evidence verification and sentencing prediction conducted by artificial intelligence. [11] The parties concerned and the lawyers can exclude those who violate the three-sex requirements of the evidence, and require the investigation organs to strengthen the evidence that should be strengthened. Through the participation of both parties, a state of equal confrontation can be achieved, so that the parties and lawyers can fully participate in the application of artificial intelligence by the investigation organs. In the trial stage, the application of artificial intelligence by judges and prosecutors still needs the supervision and

participation of the parties and lawyers. Especially in the aspect of supervision, the parties or lawyers have the right to hire experts with computer, artificial intelligence and other technologies to participate in the artificial intelligence judgment, to provide technical assistance to the defendant. Only with the effective participation of lawyers and expert assistants in the trial can the basic structure of the two-build confrontation be maintained in the links of evidence investigation and cross-examination, and the basic litigation rights of the defendant can be guaranteed. [12]

4. Conclusions

In the era of artificial intelligence, the continuous development of technology has deepened its application in all walks of life. However, in the field of criminal proceedings, artificial intelligence technology has never been unable to replace the judicial personnel for trial. The complexity and diversity of cases require the judge, which cannot be replaced by artificial intelligence. This irreplaceability is not to deny the actual application of artificial intelligence in criminal proceedings, but that when people completely rely on artificial intelligence to try criminal cases, it will not be able to protect the legitimate rights and interests of the prosecuted person from infringement. Therefore, it is particularly important to limit the use of AI in criminal proceedings. We must also balance the legal theory and the judicial practice while trying the technological innovation. Artificial intelligence brings opportunities and challenges to the development of the criminal procedure system in China. To apply artificial intelligence to criminal proceedings, we should be vigilant: the high cost and monopoly of data use may worsen the situation of criminal prosecution; the prejudice and concealment of algorithms may increase the risk of unfair judicial decision-making; and the machinery and bottleneck of technology may weaken the initiative of judicial workers. Therefore, attention should be paid to respecting and protecting human rights, follow the requirements of due process, and adhere to the basic principles of procedural rule of law, principle of proportion, principle of participation. China's criminal procedure system must conform to the development trend of judicial intelligence, respond to a series of challenges brought about by the development of artificial intelligence, and properly set up relevant rules and procedures on the basis of following the law of criminal procedure, based on China's national conditions and judicial practice. In addition, the coordination mechanism of information sharing, risk assessment, accountability and talent training should be improved to ensure the continuous improvement and development of China's criminal procedure system in the era of artificial intelligence.

Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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