

The Impact of Artificial Intelligence on the Future of Law and Judicial Proceedings

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Abstract

Artificial Intelligence (AI), as one of the most significant human achievements of the 21st century, has been experiencing exponential growth in recent years and is considered a cutting-edge technology. AI has rapidly expanded its influence across scientific, technical, and industrial fields, including the legal domain, casting its shadow over various professions within this sphere. The reason behind this lies in AI's remarkable speed and accuracy in processing vast amounts of data in a short period, consequently increasing the speed and precision of various human tasks. One such application is the use of AI as an advisor in judicial proceedings. This research aims to investigate the impact of AI on the future of law and judicial proceedings. Studies have shown that AI can contribute to improving judicial processes, predicting judicial decisions, evaluating legal documents, and even creating new laws. However, alongside the benefits of this technology, there are concerns and apprehensions, including the emergence of new legal issues and ethical challenges. Overall, AI has a profound impact on the legal field,

necessitating further research and precautionary measures.

Keywords: Artificial intelligence, algorithm, law, judicial system, judicial proceedings.

Introduction

Artificial Intelligence (AI) is essentially a technology endowed with the capacity for thought. While this capability bears some resemblance to human thought, significant and crucial differences can be discerned. Since its inception, AI has been predicted to revolutionize all industries and professions. In recent years, the application of AI has transcended research and development, evolving into a practical tool integrated into human life, to the extent that AI has profoundly impacted human existence.

Throughout history, humanity has consistently strived for progress and advancement. Comparing contemporary life in the modern world of the 21st century to the lives of our ancestors even a century ago reveals remarkable strides in human history, each accompanied by both benefits and drawbacks. One of the most recent concepts humanity has harnessed for evolution and progress is artificial intelligence. Indeed, AI has brought about a profound transformation in the digital world and human life, yet as we progress, increasingly alarming risks and concerns are emerging (Hosseini & Pourbakhshi, 2022). In essence, AI is a relatively new science, having emerged about half a century ago, and has demonstrated its capabilities and efficiency, exerting an undeniable influence on most aspects of human life, from engineering to medicine, psychology, and the humanities. The applications of AI are expanding, evolving, and maturing, foreshadowing a future where AI will have an autonomous and independent presence in all facets of human life.

Artificial intelligence has permeated human life as subtly as a flowing stream, quietly demonstrating its ability to alleviate the burdens of complex modern existence. From performing delicate surgeries with unwavering precision and reliability, to serving as functional and natural prosthetic limbs, AI has revolutionized healthcare. It has also streamlined complex calculations in engineering, reducing human error. Furthermore,

AI has ventured into hazardous environments, such as battlefields and contaminated zones, mitigating risks to human life. By automating government processes and decision-making, AI has enhanced efficiency and public satisfaction. AI has shrunk the world and blurred national boundaries, fostering a shared human experience. This interconnectedness may fundamentally reshape concepts like nation-states and citizenship, potentially returning humanity to its essential roots of unity and shared purpose. AI lightens the burden of human existence, allowing individuals to focus on their intellectual and emotional pursuits without being prematurely consumed by the demands of work and life.

However, like any powerful technology, AI presents challenges. While this paper focuses on the benefits and applications of AI, it is essential to acknowledge the associated risks and concerns, which will be the subject of future research (Abozari, 2022).

Given the significance, novelty, and potential risks of AI, particularly in the legal domain, this research aims to redefine core AI concepts and explore its applications in law and judicial proceedings. Specific topics include:

AI in law and judicial proceedings
Applications of AI in the judicial system
Benefits of AI for the judiciary and citizens
The potential of AI to prevent crime
The use of AI in judicial proceedings.

Challenges specific to the Iranian legal system

Understanding the concept of artificial intelligence necessitates a comprehensive definition of intelligence itself. Theorists have offered various definitions of intelligence. Some perceive intelligence as the ability to acquire experience, perceive, and make appropriate choices in response to environmental changes (Poole et al., 1998). Others argue that intelligence is the capacity to rapidly find suitable solutions within a vast informational space that may seem improbable to observers (Lenat and Feigenbaum, 1992).

Artificial Intelligence, abbreviated as AI, is an interdisciplinary subject within engineering sciences. While research into AI began after World War II, it was formally recognized as an

academic discipline in 1956. The field aims to create intelligent systems capable not only of comprehension and understanding but also of possessing an independent intelligent identity that can pursue predefined goals without human intervention (Russell, 1995; Valipour & Esmaili, 2021).

Following the definition of intelligence, AI is not without its own diverse theories and definitions. The term "artificial intelligence" was first coined by Professor John McCarthy of Stanford University in the context of the science and engineering of creating intelligent machines. This term refers to machines capable of learning and acting intelligently (Manning, 2022). In a comprehensive definition, AI refers to intelligent systems that learn, execute, and empower new types of software and robots to operate highly independently of their creators and operators through the analysis of big data and cloud computing (Kayssi, 2019).

In terms of decision-making and problem-solving capabilities, AI is categorized into four generations: reactive AI, limited memory AI, theory of mind AI, and self-aware AI (Hintze, 2016). This classification is significant because AI used in judicial proceedings must possess a level of human understanding, including the ability to comprehend the emotional state of others, to ensure fair trials. Importantly, intelligent operation and data analysis in machine systems cannot occur without a roadmap; this roadmap is known as an algorithm. An algorithm is a finite set of instructions executed in a specific order to solve a problem. In other words, an algorithm is a step-by-step method for solving a problem or case.

AI can be defined in terms of both logical structure and human structure. These two dimensions must be appropriately linked to simulate human thought and behavior. In terms of logical structure, AI refers to the ability to perform logical operations and analyze data using algorithms and logical rules. This aspect of AI is used for tasks such as natural language processing, data analysis, and prediction. However, in the human structure dimension, AI seeks to simulate human thought and behavior. In other words, this type of AI attempts to perform

tasks such as distinguishing between images, recognizing faces, learning from past experiences, and even interpersonal communication by simulating human behaviors, emotions, and thoughts. Therefore, the appropriate combination of these two structural dimensions contributes to the creation of a complete and optimal AI system. This type of AI can be used to design and develop intelligent and versatile systems in various areas of life and contribute to the realization of human goals.

Artificial Intelligence in Law and Judicial Proceeding

Artificial Intelligence (AI) has emerged as a powerful tool for improving and optimizing legal processes. AI systems can aid in analyzing legal data and predicting judicial outcomes. These systems can quickly and accurately assess legal information, extract crucial data, and present it to legal professionals or judges. Moreover, AI can assist in navigating complex legal matters, reducing complexity and the time required for resolution. Additionally, AI can facilitate the translation of legal texts and documents into various languages, proving invaluable in international legal matters and multilingual cases. AI can also analyze the legal histories of defendants and plaintiffs, as well as automatically track and route cases. These applications can significantly enhance efficiency and reduce administrative costs within the judiciary.

Different individuals perceive AI differently. Some view it as an artificial form of life capable of enhancing human intelligence, while others consider it a data processing technology. AI is an emerging system that utilizes computers and big data to simulate human behavior with machines. It is a method of mimicking human thought by learning from vast amounts of data and using algorithms for reasoning and analysis. In today's advanced technological era, many jobs within the judicial system can be replaced by AI technologies. Some courts have already begun using AI in the judiciary (Mahmoudi & Bahar Kazemi, 2023). AI is presented as a completely new technology with no resemblance to digital technologies that have been used by courts for years, such as applications, case management through electronic filing, and integrated justice

chains. Traditional technologies encompass various applications, including case management, electronic filing, integrated justice chains, electronic justice platforms, video technologies, legal databases, human resources, and accounting systems (Fabri, 2001). There are similarities and differences between AI and other related digital technologies, which help identify the implications of introducing AI into the judicial domain.

AI and machine learning face numerous challenges when dealing with legal matters. One of the biggest challenges is retrieving judicial opinions from legal data, which can lead to exclusive and narrow results. Additionally, the complexity of legal questions increases the likelihood of inaccurate results. If AI can successfully classify and, consequently, improve operations by building logical connections, cross-referencing, and connecting facts and clues in legal cases, it is expected that the truth will be revealed in trials (Pasquale, 2019). Various methods are used for this purpose, such as systematic automation, such as identifying individuals or objects, creating models of relationships between information, relational links, and detecting inconsistencies (Mahmoudi & Bahar Kazemi, 2023).

Ways of Using Artificial Intelligence in Judicial Proceedings

The manner in which AI is employed within a judicial system and its impact on judicial procedures is contingent on the specific structure of that judicial system. In this research, AI can influence the judicial system in three ways: 1. AI as a tool for crime prevention; 2. AI as a tool for providing suggestions or decision-making; and 3. AI as a decision-making tool.

1. AI as a Tool for Crime Prevention

Crime prevention involves predicting, identifying, and assessing the risk of crime and taking necessary measures to eliminate or reduce it (Iranian Law on Crime Prevention, 1394, Article 1). Generally, preventing crime or recidivism is a duty of judicial systems. In the Islamic Republic of Iran, this responsibility is entrusted to the judiciary, as stipulated in Article 156 of the Constitution. Due to the role of law enforcement in detecting fraud, traffic accidents, and public crimes, the preventive impact of AI in its function

as a tool for safeguarding public security and contributing to a more efficient judicial system is evident. Although prevention occurs before the judicial phase, examining this issue is essential because discrimination by AI may occur during the prevention or even detection phase, which could then extend to the judicial system. AI algorithms, with the aim of prevention, assess risk or threats and target criminals through individual and collective mechanisms (Mostafavi et al., 2022).

2. AI as a Tool for Providing Suggestions (Decision-Making)

The scenario of utilizing AI as a judicial assistant and a tool for providing suggestions refers to a situation where a case is presented and the judicial authority then uses AI to gather information and receive output or suggestions. Therefore, the judicial authority has the discretion to act on the output or suggestion provided by AI or to issue a ruling independently. For example, a judicial authority can use AI to simultaneously examine several relevant variables, such as the offender's age, criminal history, and failure to appear in court, to accurately assess the risk of the offender committing violent crimes again or the likelihood of not returning to court. Currently, about 10% of courts in the United States, including three states (Arizona, Kentucky, and New Jersey) and three major cities (Charlotte, Chicago, and Phoenix), have implemented this approach, ultimately leading to a reduction in crime rates and prison populations in jurisdictions where it has been used (Arnold and Arnold, 2015).

3. AI as a Decision-Making Tool (Replacing Judges)

The ultimate and most advanced form of AI in judicial proceedings is its role as a judicial decision-making tool. The primary benefits of using AI as a decision-making tool include reducing the workload of judges, enabling more thorough examination of evidence, preventing bias, allowing for searches in vast databases of legal and non-legal data, standardizing justice criteria, and promoting and upholding values. How AI will achieve these goals is a central question that highlights the need for judicial modeling (algorithm design) in the context of AI. Therefore, this model must be based on attention

to the underlying values of the law so that the law itself, and in the judicial process, can rely on uniform application of guidelines based on the values determined by the legal system and the logical application of these values in individual proceedings (Re & Solow-Niederman, 2019). For example, in modeling to assess and classify prisoners and determine their eligibility for parole, this assessment is made with the help of values such as the current situation, the offender's good behavior, variables beyond the offender's control, and defining them within the algorithmic model. For instance, if the offender's parents and associates have criminal records, they are considered at higher risk and ineligible for parole (Christin et al., 2015; Mostafavi et al., 2021).

Benefits of Artificial Intelligence for the Judiciary and Citizens

Tools for predicting the risk of recidivism, particularly AI, offer both advantages and disadvantages for criminal justice decision-makers and citizens alike. These tools can assist judicial bodies, especially criminal judges, during the decision-making process. In this context, Article 39 of the penal code is noteworthy, as it stipulates that if the court, after establishing guilt, determines that the offender will be reformed without the execution of the punishment, or if clause "b" of Article 40 stipulates the reform of the offender as a condition for suspending the issuance of a verdict without providing the court with a tool to predict reform, the criminal courts, in their judgments, refer to the prediction of the offender's reform based on purely subjective (Najfi Abrandabadi, 2013) and immeasurable criteria. With the aid of these technological tools, criminal judges can answer various questions during sentencing, such as: 1. Should the defendant be sentenced to imprisonment in a closed environment? 2. If released early from prison, will they commit another crime?

Furthermore, such technologies can strengthen the legal security of citizens, particularly victims and defendants, as decisions are no longer made solely by humans but by a technological tool that scientifically examines the crime, objective and external criteria, and makes decisions in the interest of legal security. In this way, citizens' expectations of the criminal justice system,

including predictability, transparency, comprehensibility, and avoiding surprises, are partially met. Ultimately, predictive tools contribute to the effectiveness of punishment by helping to prevent the release of high-risk¹ offenders (Ebrahimi, 2021). This technology, particularly in the criminal context, can be welcomed for its ability to prevent recidivism, both in a legal and criminological sense.

The Possibility of Crime Recidivism Prevention Using Artificial Intelligence

The possibility of preventing crime recidivism involves examining two issues: 1. Technical feasibility; 2. Legal framework. This research focuses on the technical feasibility of using artificial intelligence.

1. Technical Feasibility of Using Artificial Intelligence

The feasibility of employing artificial intelligence in the criminal justice realm was first explored in the United States, where mechanisms were designed and implemented to enhance the predictability of offender behavior. Nearly a century ago, in 1928, Ernest Burgess, a sociology professor at the University of Chicago, developed a mechanism for predicting the likelihood of parole success (Gholami, 2018) and recidivism by studying approximately 3,000 former prisoners. He proposed that this tool could be used in other areas of the criminal justice system, such as

identifying children on the verge of committing crimes or individuals with a potential for rehabilitation. Although the idea of identifying an offender before they commit a crime is often depicted in science fiction films, some risk assessment tools (Paknehad, 2014) can predict the likelihood of recidivism among individuals previously convicted of a crime. Thus, technically, it is possible to assess the risk of recidivism based on data collected using algorithms (Najfi Abrandabadi, 2020). The United States has a relatively extensive legal and criminological literature on this subject. Generally, in common law systems, risk levels, such as low, medium, and high, have long been criteria considered by judges when determining punishment or remedial measures. Based on this criterion, offenders with a low risk of recidivism are sentenced to short-term imprisonment or alternative punishments (Ebrahimi, 2021). Conversely, those with a high risk of recidivism are sentenced to long-term imprisonment in a closed environment. Therefore, determining the level of recidivism risk is the responsibility of the judge. Accordingly, recidivism risk assessment algorithms were created to assist judges in fulfilling this duty and have evolved over time.

Initially, these tools were used solely in the execution of punishment phase to assess the granting or denial of parole. However, their use has now expanded to the sentencing phase and the monitoring of offenders during parole or probation. Furthermore, some U.S. states have incorporated recidivism risk assessment into their strategic sentencing guidelines. Ultimately, while these tools do not limit the authority of the sentencing judge, the results of the algorithm inevitably influence their decisions. Thus, recidivism risk prediction tools, which replaced ineffective expert opinions, have been so successful that the recidivism risk assessment system in the United States relies exclusively on a predictive method known as "actuarial-statistical" (Morvan, 2019).

The growth of artificial intelligence has facilitated the design and development of a new generation of recidivism risk assessment tools. One such tool

¹ Clause (c) of the Executive Regulations for "Controlling Professional and Habitual Criminals," numbered 100/18785/9000, dated April 26, 2019, defines a dangerous offender as an individual whose criminal history, psychological and moral characteristics, and the nature and manner of their crimes indicate a propensity to commit serious crimes in the future. The determination of this matter is the responsibility of the prosecutor. Clause (h) of Article 1 of the Executive Bylaw numbered 100/14339/9000, dated February 28, 2021, instead of defining a "dangerous offender," addresses a "dangerous state." According to this clause, a dangerous state refers to the condition of a defendant or convict whose history of psychological, personality, and behavioral characteristics, as well as the nature of the crime(s) committed or the manner in which they were committed, indicates a propensity to commit violent or serious crimes in the future. The determination of this matter is the responsibility of the classification council. The examples of violent and serious crimes are as defined in Article 1 of the Executive Regulations for Controlling Professional and Habitual Criminals, approved on April 26, 2019.

is the Compass¹ software in the United States, which is based on an algorithm that utilizes the following data: 1. Information on criminal behaviors collected by the police over several years; 2. Decisions regarding deprivation of liberty (prison sentences); and 3. Risk factors related to gender, age, education, personal circumstances, employment status, financial situation, criminal history, place of residence, and stability² (Ebrahimi, 2022). This algorithm is also based on a machine learning model, meaning that computers can learn independently based on existing data. In fact, the goal is for these computers to statistically estimate the probability of recidivism for an offender. Specifically, the algorithm compares the statistical data obtained with the characteristics of an offender. If this offender shares risk factors with a previous offender who recidivated, their risk of recidivism is considered high. Finally, the result of this assessment is sent to the sentencing judge. Another software, PREDPOL, designed by an anthropology professor and inspired by an earthquake prediction algorithm, aims to predict the location (crime-prone areas) and time of certain crimes and is provided to the police. In essence, this software seeks to realize the police's dream of predicting crime based on the science fiction film *Minority Report* (Ebrahimi, 2021). This software has also faced criticism for displacing crime.

"The University of Cambridge in England developed the HART³ software. This software, which was piloted by the police from 2007, involved several stages. Firstly, a database of crimes from 2008 to 2012 was compiled to inform police decisions during this period and track

recidivism rates. Subsequently, an algorithm was designed based on this pre-recorded data to assess the risk of recidivism among suspects and then categorize them into one of three groups: low, medium, or high risk. Through this process, nearly 30 factors were identified, some of which were non-statistical and unrelated to the crime, such as address and gender. These factors were then compared to the characteristics of the suspect (Oswald et al., 2018). The police used this tool during the surveillance phase to assess the risk of recidivism of a suspect and to make appropriate decisions regarding the extension of surveillance or release. However, because this technology often prioritizes security over individual rights and freedoms and tends to label individuals as high-risk, it needs to be constrained by a legal framework (Ebrahimi, 2021)."

The Use of Artificial Intelligence in Judicial Proceedings

The increasing complexity of human interactions in various aspects of life has led to more intricate and time-consuming disputes. Some judicial proceedings can last for months or even years due to the vast amount of information involved in cases. Additionally, the specialization of legal matters has necessitated the establishment of specialized courts for specific cases, further increasing the volume of specialized information required to handle ordinary cases. Furthermore, particularly in our country, the proliferation of laws and regulations, and the multiplicity of competent authorities, has made it necessary for judges to have a comprehensive understanding of a vast and dispersed body of laws and regulations to ensure fair and lawful proceedings (Hosseini et al., 2022). On the other hand, the remarkable capabilities of artificial intelligence in processing and managing large amounts of data with high speed and accuracy are undeniable (Wischmeyer, 2020). The desire to achieve justice more effectively and efficiently has led to the idea of using artificial intelligence in judicial proceedings. In essence, the judicial process can be likened to an algorithm, and the data related to previous cases and other sources used to train the machine can be considered training data. Naturally, the information related to each specific case that is provided to the AI for processing and

¹ "This algorithm, developed by a private company, is mandatorily used by judges in some states. Within this framework, 137 questions are asked, including whether the individual has a home phone, difficulties paying bills, family history, and criminal history. The algorithm then categorizes the individual on a scale from 1 (low risk) to 10 (high risk). This is a variable that assists the judge in determining the sentence.

² For further reference, see the "European Charter of Professional Ethics on the Use of Artificial Intelligence in Justice Systems," adopted on December 3, 2018: 55 and 128."

³ Harm assessment risk tool

generating output in the form of advice for the judge should be considered as input data interacting with the system and the user. Although judicial proceedings are not like mathematical data, when case information is provided to a machine, it categorizes and analyzes it similar to other data in various fields, using mathematical concepts. However, this does not alter the fundamental nature or content of the data. The speed of AI in analyzing data is not related to the type of data received but rather to the specific capabilities of the algorithm used and the features of the computer. The experience of some countries (Wischmeyer, 2020) indicates that AI is used in judgment for consultation rather than as an independent substitute for a judge, or a so-called "robot judge." In fact, it cannot be claimed that AI can currently replace judges. Therefore, judges must remain at the helm and oversee all stages of the proceedings, as it is acknowledged that AI with capabilities beyond human capabilities in all dimensions, including the ability to understand all emotional functions, commonly referred to as strong AI, is not yet available (Poola, 2017) and (Hosseini et al., 2022).

Challenges of Artificial Intelligence (Specific to the Iranian Legal System)

The use of artificial intelligence in society presents both benefits and risks. The juxtaposition of these two terms highlights the notion that novel technologies like AI, while offering advantages, also bring forth challenges and risks (Mostafavi Ardabili et al., 2021). In the following, two issues will be examined: "The liability of artificial intelligence in the role of a judge" and "Conflict with the concept of judgment in the Iranian legal system."

1. The Liability of Artificial Intelligence in the Role of a Judge

One of the significant challenges surrounding AI-driven judgment is the issue of liability. Can a computer program be held responsible for issuing a binding judgment in a dispute between parties? This question has even permeated the judicial proceedings of some countries. In the case of *Pintarich v Deputy Commissioner of Taxation* (2018) in the Australian Federal Court, the court ruled that the appellant could not rely on the names generated by a computer as a legal basis.

This is because the letter could not be considered a decision by the tax office to collect the tax debt, as reaching a decision requires a mental process to arrive at a conclusion, and the decision-maker must have the intent to express that conclusion. A letter generated by a computer lacks both of these characteristics (Tim and Bazzana, 2018).

Regarding the liability of AI, it seems that the situation varies in different legal systems. Some systems may, in the not-so-distant future, attribute independent liability to AI, as exemplified by steps taken in certain jurisdictions, such as Saudi Arabia granting citizenship to the humanoid robot "Sophia" and Japan granting Tokyo residency to an intelligent system. In Iranian law, Article 171 of the Constitution and Article 13 of the Islamic Penal Code of 1392 (2013) assign responsibility to judges. According to some authors, a judge's liability consists of four elements: 1. Making a judicial decision; 2. Committing an error or negligence; 3. Occurrence of harm; and 4. A causal link between the error or negligence and the occurrence of harm (Asghari Aqdashhadi and Ghorbani, 1386). It seems that the first element is only fulfilled if the AI judge independently resolves the dispute. In cases where the AI's decision is reviewed by human judges, the decision cannot be attributed to the AI, and all civil, criminal, and disciplinary responsibilities will lie with the human judge. If the AI were to judge independently, the most significant missing element that would undermine the AI's liability is the causation link and the ability to attribute the decision to the AI. Since the legal personality of AI is not recognized in the Iranian legal system, it must be acknowledged that AI, as a product, cannot prevent the liability of others (Hakmatnia et al., 2019).

2. Conflict with the Concepts of Judgment in the Iranian Legal System

If artificial intelligence is to replace human judges in the Iranian legal system and independently make decisions and issue judgments, it will face challenges specific to the Iranian legal system and its foundation, which is Islamic jurisprudence. In Iranian law and jurisprudence, there are concepts regarding judgment that seem incompatible with artificial intelligence. For example, conditions such as "maturity, sanity, Islam, justice,

masculinity, ijihad, freedom, purity of origin, knowledge of the principles of inference and legal rulings, sight, and speech, most of which are agreed upon among the five schools of thought, except for a few specific cases" (Hajj-Ali, 2013). Many of these conditions, such as maturity, Islam, justice, masculinity, purity of origin, etc., are inherently human attributes that cannot be attributed to an AI judge. Although robots can now speak, see, make rational decisions, and store information, it is difficult to consider them articulate, sighted, rational, or knowledgeable in the legal sense.

According to some, "Regarding the obligatory ruling of using general artificial intelligence as a judge, there are two viewpoints: Some jurists believe that if a person is merely authorized by a judge to apply concepts and rulings to their instances and is immune from error, it is unlikely to be impermissible. Some jurists have made the use of such a ruling contingent on the authority of the religious leader, while others believe it is impermissible and some consider its practical possibility unlikely but believe that its use as a tool is not prohibited. Based on verses, hadiths, the conditions of a judge, and customary practice, the opinion of impermissibility for general AI as a judge is more robust than the opinion of permissibility" (Binshbeh-nia, 2020).

In this regard, it seems that if AI can make decisions based on laws and, in the absence of laws, based on authoritative fatwas, and if these decisions are supervised by human judges, those jurists who believe in the permissibility of the judgment of a muqallid (imitator) judge may consider AI judgment valid. From another perspective, one should not overlook the significant service that AI can provide to judges in identifying the prevailing trend in courts or identifying authoritative fatwas among a vast array of jurisprudential opinions in the absence of explicit regulations (Rahbari and Shabanpour, 2022).

Conclusion

Given that the proposal of "judgment by artificial intelligence" is under review by the Judicial and Legal Commission of the Parliament, and its proponents expect it to revolutionize the future of the judiciary and reduce the duration of trials, it is

essential to consider other functions of AI in the criminal justice system, given its track record and both positive and negative aspects. In other words, instead of using AI as a tool to reduce the duration of trials, prevent crime, or punish offenders, the algorithm can be designed to serve the principle of individualized punishment. By collecting information, characteristics, and objective elements of an offender's personality, such as education level, employment, and access to regular social and health services, and requesting this information from government agencies like the labor department and welfare organizations, AI can centralize a significant amount of economic, social, and health data and make it available to the sentencing judge in the shortest possible time. Given the large volume of cases, the limited time available to adjudicate each case, and the need to resolve a significant number of cases due to statistical policies, the judge will have the necessary tools to issue a more appropriate sentence for the defendant (Ebrahimi, 2021). In this way, AI will serve humanity rather than vice versa. It goes without saying that the realization of this ideal, namely criminal justice that can reconcile technology and human rights, depends on the quality of data, adherence to the law in using this tool, transparency in algorithm processing, and most importantly, preserving the judge's discretion in assessing and issuing judgments. Given the foregoing, while there are benefits to this technology, there are also concerns and fears, including the emergence of new legal issues and ethical challenges. In general, AI has a profound impact on the field of law, which necessitates further research and precautionary measures.

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