Discussion on the Reform of Higher Legal Education in China Based on the Application and Limitation of Artificial Intelligence in Law Represented by ChatGPT

Youchun Yu
Law School of Liaocheng University, Liaocheng City, Shandong Province, China

Abstract. ChatGPT, as a representative of generative artificial intelligence, is a disruptive innovation in the field of AI. With its powerful natural language processing technology, ChatGPT has been widely used in the legal profession, providing strong support for the legal industry. As ChatGPT and other AI technologies continue to evolve and become more widely adopted, they will undoubtedly impact the legal industry and current higher education in Chinese law. Based on this, we will explore the challenges and opportunities facing Chinese legal education in the era of artificial intelligence, focusing on the applications and limitations of generative AI such as ChatGPT in the legal profession.

Keywords: ChatGPT; Artificial intelligence; Legal education; AI ethics.

1. Introduction

ChatGPT, short for "Chat Generative Pre-trained Transformer," is a chatbot program developed by OpenAI. As a language model, it incorporates an increasing number of parameters with each update and iteration, not only using extensive text training to write more and more human-like text, but also introducing a training paradigm based on human feedback through reinforcement learning. This allows ChatGPT to improve through reinforcement learning based on human feedback. ChatGPT’s powerful language model capabilities enable it to provide great potential for the legal industry and modernize legal education. With the continuous optimization and popularization of ChatGPT and other AI technologies, it is expected to promote the upgrading and transformation of legal education.

This article first examines the current status of AI application in China's legal industry, then reveals the limitations of its application and the challenges it poses to the legal industry and legal education. Finally, this article provides direction and measures for the transformation of China's higher legal education in the age of artificial intelligence to better create a new pattern of the rule of law in the future.

2. Applications of ChatGPT in the Legal Field

2.1 Processing of Legal Texts

ChatGPT, as a powerful language model, possesses unparalleled capabilities in processing textual content. Based on its learning from a vast corpus of legal texts, it can assist in drafting various legal documents, such as initial drafts of contracts, legal opinions, complaints, answers, patent applications, and other legal files, thereby greatly reducing the burden on legal professionals.

2.2 Legal Translation Engine

As a generative artificial intelligence, ChatGPT can act as a "legal translation engine" thanks to its vast database system. In legal research and the process of joint law enforcement between different countries or regions, personnel often need to read and understand multiple documents in different languages. ChatGPT can utilize its powerful text processing capabilities to provide law enforcement agencies with high-quality translation and document processing services. Therefore, the emergence of ChatGPT is highly beneficial for legal professionals in their daily text processing work.
2.3 Judicial Judgment Assistance

In early 2023, a Colombian judge admitted to using ChatGPT to make a ruling, marking the first use of a text-generating AI in a legal judgment. This demonstrates ChatGPT's ability to assist in judicial trials. In the judgment document, ChatGPT not only provided specific legal provisions and applicable situations, but also explained the legislative purpose of the case and the constitutional court precedent, highlighting its effectiveness in assisting judges with their judicial work. Considering the rigor of the law, ChatGPT cannot replace judges in the short term, but its appropriate use can make it a capable assistant in the judicial trial process and promote efficiency in the judicial department.

2.4 Legal Retrieval Tool

Since its launch, ChatGPT has benefited from its vast pre-training corpus. Although it was not specifically developed for information retrieval purposes, through reasonable questioning, it can often provide more accurate and comprehensive answers than traditional search engines based on the "crawler + recall + ranking" information retrieval paradigm. Its information centralized feature and conversational communication mode also make information retrieval more convenient than using traditional search engines. In the legal field, lawyers, judges, legal researchers, and even law students have a huge daily demand for legal literature and data retrieval. Through proper questioning, ChatGPT can provide users with a large amount of literature and related materials, assisting users in quickly understanding relevant information.

2.5 Providing Legal Aid

With its powerful data training library, ChatGPT is capable of providing relatively accurate and cautious responses to legal-related questions. This inspires us to use ChatGPT to optimize current intelligent legal consulting services, and to benefit the general public even more. Low-cost or even free legal aid services are crucial for vulnerable groups. ChatGPT, as a knowledge repository combined with its excellent contextual understanding ability, can completely revolutionize existing intelligent legal consulting businesses. That is, by using ChatGPT to provide online legal consulting services, and by providing more relevant settings, ChatGPT can answer users' questions through chat conversations, provide legal aid, explain legal terms, and offer practical advice. Using ChatGPT also eliminates language limitations, as it can provide legal aid services in multiple languages, making cross-lingual communication easier and more efficient, truly achieving "universal" public service. This service is very useful for users who need urgent or non-professional legal assistance. They do not have to spend time and effort finding lawyers or consulting agencies, or being unable to obtain legal services due to financial reasons or other reasons.

2.6 Supporting Legal Education

In practice, it has been found that although ChatGPT's training data only goes up to the end of the 2022 Chinese judicial examination, it still performs well in answering multiple-choice questions from the 2022 judicial examination. This indicates that ChatGPT, which has undergone a large amount of pre-training with data, has developed certain reasoning abilities. It also shows that ChatGPT's grasp of the overall question is stronger than its ability to answer essay questions. This suggests that someday in the future, ChatGPT could become a powerful "educational aid" in the legal community, similar to "Xiaoyuan Souti," a tool for searching exam questions. Educational companies can use ChatGPT to quickly generate and revise question answers, thus improving the efficiency of writing teaching materials. Teachers and students can quickly get answers to difficult questions by asking ChatGPT. However, the current main issue with ChatGPT in this area is that its accuracy still needs to be improved. But considering its continuous version iterations, ChatGPT may one day have the opportunity to become a universal aid tool in the education field, promoting the development of legal education and even the entire education industry.
3. Limitations of ChatGPT's Application in the Legal Field

3.1 Lack of Training Data

In China, the world's largest legal database has been built with substantial resources, including specialized databases such as the Judgment Document Network, Open Trial Network, and China Prosecutor Network. These databases contain a large amount of high-quality legal training data. However, due to reasons such as national security, privacy protection, and network security, these databases are not open to the public, resulting in data defects, data gaps, data barriers, and data isolation in the existing judicial data. As a result, the quality of the data is difficult to guarantee. The lack of high-quality specialized data directly constrains the application of large language models represented by ChatGPT in the Chinese legal field. Therefore, due to the comprehensiveness and timeliness of the training data, the answers given by ChatGPT are not entirely accurate. This leads to relatively good performance in answering legal text retrieval questions, but its performance is not satisfactory when dealing with more in-depth legal issues. In practical use, we should still carefully verify the correctness of its answers to avoid being led to erroneous cognition. Although ChatGPT is currently unable to achieve complete accuracy in answering legal retrieval questions, if the data set is further expanded and its accuracy is ensured, there is significant room for improvement in its performance in legal retrieval. With the continuous iteration of technology, ChatGPT is likely to replace existing legal retrieval websites such as PKULaw and WeLaw, becoming an efficient "personal assistant" for legal professionals and greatly improving work efficiency.

3.2 Generating False Statements

For safety reasons, artificial intelligence should be truthful and not harmful to humans, and should avoid bias and discrimination as much as possible. This is also the goal that ChatGPT and its company OpenAI adhere to. However, "chatbot jailbreak" can allow ChatGPT to output statements that violate security guidelines and fabricate completely random facts, which is unacceptable in the legal field where content authenticity is strictly required. Due to prompt injection attacks enabling functions that have been blocked by developers, it is easy to induce ChatGPT to generate a large amount of erroneous and biased content. If some unscrupulous legal practitioners use this strategy in litigation, it will bring great challenges to the fairness of case handling, and directly limit the application of artificial intelligence tools in legal interests.

3.3 Lack of Value Judgment

As a type of artificial intelligence, ChatGPT is similar to humans in some aspects and even surpasses humans in certain ways. However, its essence lies in a natural language processing technology that processes text through language models, lacking the creativity, autonomy, moral emotions, and value judgment abilities at the core of human intelligence. Its powerful text processing capability is gradually taking over the basic work of legal professionals, but value judgments such as conviction and sentencing still require human judges to make decisions based on their experience. Considering the rigor of the law, ChatGPT cannot replace the work of judges in the short term. However, appropriate use of ChatGPT can make it a helpful assistant in the judicial process, promoting the efficiency of the judicial system. China is currently constructing intelligent courts and developing judicial artificial intelligence systems. The application of generative artificial intelligence, represented by ChatGPT, to the judicial system can help realize intelligent judgment, effectively allocate judicial resources, and maximize their utility. It can be foreseen that ChatGPT will play an increasingly important role in the field of judicial trials.
4. Challenges Posed by Generative Artificial Intelligence to the Legal Industry and Legal Education

Considering the current development status of ChatGPT, it is expected that strong artificial intelligence will not be realized in the short term, and AI still lacks the ability to exist independently, only serving as an auxiliary tool. Based on the limitations of ChatGPT's legal applications mentioned above, many people believe that artificial intelligence cannot replace legal professionals because it lacks the empathy that is unique to humans. As the highest biological intelligence, humans are always more likely to empathize with the parties involved in legal cases. There is indeed a great need for empathy, and it is easier to establish trust with peers. However, artificial intelligence still lacks the ability to empathize, and cannot truly replace legal professionals at present. However, if we look at the emotional value generated by human intelligence and artificial intelligence from a different perspective, it does not necessarily mean that the value generated by human intelligence is higher than that generated by artificial intelligence, even during the short-term expected development process of AI. Although human intelligence is better at empathizing with the parties involved, it does not mean that lawyers can handle their own emotions and emotional comfort of others very well, let alone the attitudes of prosecutors and judges towards the parties involved. Some studies have shown that ChatGPT can understand and infer the actions of others to some extent through mental testing. Therefore, it is not far-fetched to expect AI to attempt to understand human emotions and provide certain emotional guidance. While our emotions are valuable, promoting the value of emotions alone is clearly insufficient to solve job insecurity.

Although artificial intelligence cannot make value judgments, the birth of ChatGPT is a disruptive innovation in the field of artificial intelligence, and its powerful functions will have a significant impact on the legal industry. In February 2023, the "AI lawyer" developed by AI company DoNotPay appeared in court to provide defense for a defendant accused of speeding. At the same time, Joshua Browder, CEO of DoNotPay, pointed out that the "AI lawyer" can handle complex cases. With the rapid development of AI, it will replace some of the work of legal professionals. The invasion of AI has caused many legal professionals, especially young lawyers, to feel a sense of crisis. With the widespread application of AI in online courts, robot prosecutors, online lawyers, etc., the professionalization and commercialization of AI in the legal industry has emerged, and it will become a reference standard for whether legal professionals are qualified, and the market will also eliminate unqualified legal professionals. Without a doubt, low-quality legal professionals will lose their jobs. Therefore, legal professionals must have an absolute advantage in legal technology to avoid job anxiety. The foundation of ChatGPT is massive reference data, but it cannot review and judge the source and accuracy of the reference data, and the quality of the content. The valuable and irreplaceable ability of legal professionals is not simply to accurately apply the provisions of the law based on the paradigm of the case, but to analyze, reason, discover and solve problems in the case. We believe that AI technology, as a "tool" derived from and serving humans and subject to human constraints, its essence and limitations determine that it is difficult to replace the basic qualities that a mature and professional legal service industry practitioner should possess in the present and foreseeable future.

Artificial intelligence will replace some of the work done by legal professionals, which may not bode well for the employment prospects of future law students. However, a more worrisome aspect is that ChatGPT may lead students to develop a dependence on "intelligence," eroding their autonomy, proactivity, and creativity, among other qualities. Excessive reliance on AI may cause students to lose their awareness of self-education. ChatGPT has powerful data collection and analysis capabilities, and can provide students with precise answers and push learning resources. With just a few simple Q&A steps, students can easily complete learning tasks. However, while providing students with convenience, it also reduces opportunities for direct participation in thinking. Long-term "feeding-style" information acquisition may invisibly erode students' initiative and curiosity, leading to technological addiction, easy satisfaction with ready-made answers, and encouraging intellectual laziness. They may become more accustomed to passive acceptance, gradually giving up autonomous
exploration, thinking, verification, and summarization. As a result, students' knowledge construction may suffer, and they may lose creative and critical thinking skills. The use of ChatGPT may also lead to plagiarism and other unethical practices, raising ethical issues about fairness in evaluation, and negatively affecting educational and academic ecosystems. When students use ChatGPT to complete assignments, the assistance provided may make their work richer and more detailed, making it easier for them to score higher than students who did not use ChatGPT. However, this form of assignment cannot accurately reflect a student's true level, and it gives some students who use AI to complete assignments an unfair advantage over others, which is not conducive to building an equal competitive environment. Currently, some American university students use ChatGPT to write assignments and papers, leading to serious intellectual property and academic integrity issues. Some course guidelines at New York University explicitly state that this behavior constitutes academic fraud.

Generative artificial intelligence is a large-scale language model that possesses powerful natural language processing techniques, backed by a strong database. As a result, it can replace or even surpass human brains that acquire knowledge through rote memorization and a strategy of practicing a large number of questions. However, the common problem in Chinese legal education is the overreliance on rote memorization and extensive practice. The legal profession has been listed as a high-risk field in the "China College Graduates Employment Report" by Ma Jiantang in 2015, 2017, 2018, and 2019, indicating a high unemployment rate, low employment rate, and low salary level. The emergence of ChatGPT has made many law students dependent on machines, exacerbating the already difficult employment situation. Therefore, the reform of legal higher education in response to the new policy background is urgent. Although artificial intelligence brings both reform and employment challenges to legal higher education and law students, it also provides opportunities as the legal field requires a large number of legal technology talents. However, the current status of legal education in our country cannot meet the special needs of legal talents in the AI era. In this context, law schools must combine the era of artificial intelligence with technological resources to reform the supply side of legal education, so as to fully unleash the enormous potential of the fusion of artificial intelligence and legal education and effectively improve the severe employment situation in the legal field.

5. The reform of higher education in law powered by artificial intelligence

In July 2017, the State Council of China released and implemented the "New Generation Artificial Intelligence Development Plan", which clearly stated the need to "establish a number of global leading AI technology innovation and talent training bases, and build a more complete AI legal system, ethical norms, and policy system." For the first time, the supporting legal system for the development of AI was clarified at the institutional level, which has urgently pushed for fundamental changes in the development concept, training objectives, and learning methods of legal education in the AI era. In order to promote the smooth progress of this transformation, the supply-side reform of legal education should be initiated from the following aspects:

5.1 Training Objectives: Cultivating Legal Technology Talents with "Artificial Intelligence + Law" as the Basis

The popularity of generative artificial intelligence has led to an increasing social demand for talents who are proficient in both "artificial intelligence + law". Currently, many domestic companies are actively developing legal technology products, which sometimes face many legal issues. However, there is a large gap in the supply of composite talents with a solid foundation in legal theory and technical knowledge. In addition, China's judiciary is undergoing reforms, and the construction of intelligent courts nationwide aims to achieve convenient, efficient, intelligent, and accurate judicial services. This has also resulted in higher requirements for law students' application of artificial intelligence technology. Therefore, higher education in law should pay more attention to the cultivation of composite talents who are proficient in "artificial intelligence + law", and rely on the
talent cultivation concept of "artificial intelligence + law" to cultivate legal technology talents who not only master legal professional knowledge and legal vocational skills but also excel in the application of technology and are adept at thinking about technology ethics.

Firstly, we need to reflect on and adjust our training mode to upgrade the "school + practical" training mode to meet the needs of the times. It is not enough to only train students in legal professional skills such as legal analysis and argumentation, legal retrieval, and other skills that can be performed competently by artificial intelligence. Upgrading the legal education model to "school + practical + artificial intelligence" co-training mode will be more advantageous. The understanding and mastery of technology in the age of artificial intelligence will become one of the important factors for measuring the future legal professionals.

Secondly, we also need to learn from and absorb the innovations in foreign legal education to make up for our own shortcomings. Many universities abroad have already offered law courses related to artificial intelligence, actively promoting new legal education models. Among them, the United States is the country that started the interdisciplinary legal education of law and technology the earliest, such as Harvard Law School offering courses on "Legal Consulting and Strategy in the Data Age," "Frontiers of Cyber Law: Artificial Intelligence, Automation, and Information Security," "Compliance and Computation," and "Comparative Data Privacy." Although Chinese universities lag behind in offering relevant courses that combine artificial intelligence and law, individual law schools in China have attempted to offer cutting-edge courses combining artificial intelligence and law in recent years. For example, the law course construction at Beijing Institute of Technology aims to cultivate compound rule-of-law talents in "law + technology" and innovate legal education based on its own disciplinary characteristics and advantages. This is a meaningful and innovative educational reform, and Chinese law schools can learn from other schools' practices and design differentiated courses in the "artificial intelligence + law" field based on their own strengths to achieve outstanding results.

Lastly, students should be educated to question data and algorithms. Law students should be taught to have the ability to question the data generated by artificial intelligence programs to avoid over-reliance on technology. Artificial intelligence technology also has its disadvantages, and algorithmic bias (after all, machines are programmed by fallible humans) associated with such technology may reinforce legal professionals' biases. This requires legal professionals to recognize that artificial intelligence judgments may be incorrect and that they require rational judgment and interpretation by legal professionals. Law school students need to learn to question the data they receive when using these programs and look at the data with a skeptical eye. Law students need to be aware of their role as supervisors of these projects and outputs.

5.2 Educational Philosophy: Cultivate Legal Thinking and Strengthen Legal Skills Training

Regardless of the current or future era of artificial intelligence, legal thinking is the most important professional characteristic and ability of legal professionals. In a sense, the way legal professionals think is more important than their professional knowledge. Although legal knowledge is inexhaustible, no student can acquire all legal knowledge during their studies, while artificial intelligence can easily achieve this. On the other hand, the unique legal thinking ability of humans is something that artificial intelligence cannot possess. This is also the basic factor that determines the recognition and judgment of legal professionals. Whether in the current or future era of artificial intelligence, having a rigorous legal thinking ability is an important condition for legal professionals to practice law.

Law schools must attach great importance to the cultivation of legal thinking among law students, enabling them to form the habit of analyzing and interpreting law and legal issues through the application of legal concepts, legal reasoning, and other legal methods. Therefore, emphasizing and promoting legal thinking aims to improve the legal quality and professional ability of legal professionals.

For a long time, there have been two common problems in legal education in China. On the one hand, the education tends to be teacher-centered, with an emphasis on imparting knowledge while
neglecting the cultivation of skills. On the other hand, most law schools in China still prioritize general education and focus heavily on connecting with the judicial examination. Some universities even make the judicial examination the guiding principle of legal education, placing excessive emphasis on testing basic knowledge and neglecting the development of legal thinking, which is essential for law as a "practical rationality." As a result, the daily learning task of law students is to memorize and understand basic legal knowledge. This approach leads to limited mastery of legal methods and legal writing skills, making it difficult for law students to handle real-world social problems. In the age of artificial intelligence, focusing on knowledge transmission does not contribute to the cultivation and formation of legal thinking skills in law students. This approach can lead to the characteristics of law students being more theory-oriented, with poor practical abilities, weak creativity, and heavy reliance on books, which is obviously insufficient to keep up with the trend of the artificial intelligence era.

In the era of artificial intelligence, we need to shift the focus of teaching from the teacher to enhancing students' legal thinking and practical skills. In this regard, the Socratic teaching method adopted in American legal education is very enlightening. Compared with China, students in American law schools often do not acquire knowledge through the teacher's imparting, but rather gain legal knowledge, rules, and principles through reading a large number of cases and judicial decisions and deducing from them. This helps to cultivate students' ability to think independently and analyze problems from multiple perspectives, making them proficient in practical legal affairs after graduation and better able to adapt to the needs of the development of the AI era. This is worth our reference.

5.3 Teaching Method: Reshaping the Role of Teachers and Pay Attention to Personalized Learning

Firstly, we need to reflect on the indoctrinating teaching methods, which greatly undermine the absorption and application of knowledge. In the era of artificial intelligence, the traditional teaching approach of law and the role of teachers have been given a new direction and significance. The most prominent characteristic of "artificial intelligence + law" is the change in teaching approach, from teacher-centered to student-centered learning. Law teachers need to learn how to collaborate with artificial intelligence and focus on the shaping of the legal personality of law students, transforming themselves from knowledge output providers to guides for students' knowledge acquisition. The era of artificial intelligence also presents new requirements for law teachers, including the enhancement of five abilities, as follows: the ability to use artificial intelligence to promote student learning, the ability to use data analysis to evaluate student learning outcomes, the ability to manage artificial intelligence resources, the ability to use artificial intelligence to cultivate students' logical thinking and rational judgment, and the ability to enhance students' practical legal skills. Only by fully stimulating the subjective initiative of teachers can fundamental changes be made to their role, thus fully unleashing the role of "artificial intelligence + education" in education innovation and transformation.

Furthermore, in the era of artificial intelligence, AI tutoring systems can customize courses based on the abilities and needs of different law students. This is more conducive to creating personalized learning methods than standardized training methods. However, in the AI era, teachers are still needed to help students understand the current society and the future of artificial intelligence, civilization, and dilemmas, and to enable students to have independent thinking skills for legal reasoning. The development of artificial intelligence cannot completely replace law teachers. Instead, law teachers can use AI to improve work efficiency and engage in more valuable work within limited time. By relying on the application of AI technology in legal teaching practice, law teachers can be liberated from low-quality mental labor such as mechanical theory teaching and repeated testing of basic knowledge, and guide students to use AI for personalized learning, helping students find their own learning direction and methods.

In summary, although the application of artificial intelligence is changing the traditional educational environment and methods, it can never change the fact that technology is only a means.
The development of any technology is for the betterment of humanity, not to replace humans. Therefore, the key role of law teachers' experience and high-level cognitive activities cannot be replaced by artificial intelligence. Law teachers in the AI era must keep up with the times, adapt to the development of the AI era, free themselves from the traditional role of teaching legal knowledge, become the navigators of AI, use it to design personalized learning plans for students, and become the consultant for students engaged in legal professions, the companion of students learning legal knowledge, the motivator for high-quality legal professionals, and the guardian of legal faith, truly becoming the "engineer of souls" for students.

5.4 Ethical Education: Cultivating AI Ethics for Legal Professionals

Artificial intelligence is not only a technical issue but also a legal and ethical one. When a country uses law to regulate a certain technological activity, it has a strong purpose, and meeting human ethics is a fundamental requirement. The law should have a value-leading function on AI technology. How to maintain sufficient vigilance in the development of AI, prevent its abuse, and ensure that this technology does not pose a fundamental threat to human survival are the missions of legal education professionals. The function of legal education is to educate people, not to manufacture machines. In the AI era, legal education should not only focus on the reform of teaching concepts, content, and organizational forms, but also on the development of the social emotional capacity of law students.

As a representative of generative AI, ChatGPT is only a language model and does not have the ability to make value judgments. It can only process natural language through extensive text training and cannot make moral judgments. Humans possess basic human nature such as morality, conscience, ethics, rules, and habits, and can make judgments of good and evil and behavioral choices based on their inner conscience. It is precisely because there is no moral restraint on artificial intelligence that it will bring challenges to humans and society, which may pose a threat to national security, cause judicial jurisdiction issues due to the intelligentization of cybercrime groups, and even result in the disclosure of personal privacy, etc. These issues require us to regulate AI through legal regulations and policy constraints. "On the one hand, we must resolutely exclude AI technology products that violate public order and good customs and may challenge the bottom line of human ethics from legal protection. On the other hand, we should strictly control and restrict those technologies that may affect human ethics through policies or laws, to prevent the catastrophic impact on humanity that may result from the loss of control of technology."

Therefore, legal education cannot ignore the cultivation of AI ethics for legal students, especially in the era of AI. We should adhere to legal students' belief in the law and cultivate legal talents who are proficient in both morality and law. It is also essential to add AI ethics education courses to the curriculum system, such as the philosophical foundation and ethics of AI. As the famous Greek philosopher and educator Aristotle said, "All technology, all research, and all practice and choice are aimed at some kind of good." The essence of legal higher education is based on the cultivation of "human beings." In the process of education and teaching, the application of all technologies must serve this purpose. In ethical education, we should clearly outline the boundaries of "good" and "evil" for students, establish the correct professional and value outlooks, so as to achieve the goal of "being good" for AI technology.

References


