Integration of “smart” technologies in the civil proceedings of the People’s Republic of China

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Abstract. The concept of creating digital justice is not quite new in the modern world, but its implementation takes place in various countries in different ways. China has achieved tangible success, where artificial intelligence technologies are gradually being integrated into judicial proceedings. A robot judge is a real mechanism for resolving a dispute, and people's attitude to this form of protection of the fundamental right guaranteed by the state is mixed, but as practice shows, this method is acceptable in the era of the digital revolution. The research purpose is to identify the main trends in the process of integrating “smart” technologies in the civil proceedings of the People’s Republic of China based on artificial intelligence technologies. The research has identified 1) common for all countries stages collaboration between artificial intelligence and humans; 2) various obstacles to introduction into the judicial system of independent units specialising in dispute resolution that are connected with Internet; 3) basic technologies required to create “smart” courts; 4) main tasks for ensuring social guarantees in the digital form of civil rights protection; 5) main trends in the process of digitalization of civil proceedings. The study led to the conclusion that artificial intelligence technologies have deeply penetrated the Chinese justice system, radically changing all judicial activities, as well as procedural institutions. Close cooperation of IT companies, judicial community and government agencies ensured the success of this process.

Key words: digital justice, civil procedure, smart court, artificial intelligence, internet court, robot, virtual judge, information and telecommunications facilities, China

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Аннотация. Концепция создания цифрового правосудия является в современном мире совершенно не новой, однако ее реализация происходит в разных странах по-разному, ощутимых успехов добился Китай, в котором происходит поэтапная интеграция технологий искусственного интеллекта в судопроизводство. Робот-судья является реальным механизмом разрешения спора, при чем отношение людей к такой форме защиты основного права, гарантированного государством, является неоднозначным, но, как показывает практика в большинстве случаев, такой способ является приемлемым в эпоху цифровой революции. Научно-исследовательской целью подготовленной статьи является выявление основных тенденций процесса интегрирования «смарт» технологий в гражданское судопроизводство КНР, основой которого являются технологии искусственного интеллекта. Выявлены: 1) общие для всех стран мира этапы коллаборации технологий «искусственного интеллекта» и человека; 2) различные препятствия на пути внедрения в судебную систему самостоятельных звеньев, специализирующихся на разрешении споров, имеющих тесную связь с сетью «Интернет»; 3) базовые технологии, необходимые для создания «смарт» судов; 4) основные задачи для обеспечения социальных гарантий в цифровой форме защиты гражданских прав; 5) основные тенденции процесса цифровизации гражданского судопроизводства. Проведенное исследование позволило сделать вывод, что технологии «искусственного интеллекта» глубоко и прочно проникли в правосудие Китая, кардинально изменив всю судебную деятельность, а также процессуальные институты. Тесное сотрудничество представителей IT-компаний, судейского сообщества и государственных органов, обеспечило успешность данного процесса.

Ключевые слова: цифровое правосудие, гражданский процесс, смарт-суд, искусственный интеллект, интернет-суд, робот, виртуальный судья, информационно-телекоммуникационные средства, Китай

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Introduction

In accordance with the requirements of the fifth five-year plan concerning the reform of the people’s courts (2019—2023) and implementation of the five-year plan for the construction of information system in the people’s courts (2019—2023), the
task was set to integrate eighty-five innovative information technologies created by Chinese IT manufacturers into the judicial system. Most of them are more or less related to artificial intelligence technologies (Dudin, Frolova, Protopopova, Mamedov, & Odintsov, 2019).

Introductions of robots in the field of law has forced the scientific community of the People’s Republic of China to think about the limits of integrating such technologies in both legal proceedings and legal advice. In 2017, a robot named Xiaofa was put into operation in the Beijing Internet court. It answered questions asked by visitors in a child’s voice; the main function was to give explanations on complex legal issues in the language of ordinary people. This robot can answer more than 40,000 judicial and 30,000 legal questions, which has significantly accelerated the process of applying to court. The choice of voice is not accidental either, as it allows the litigants to bring their psychological state into balance. Currently China has more than 100 robots in courts across the country; it makes the process of creating intelligent justice more efficient, moreover, some of the robots are specialized, for example, in business, law or specific disputes1.

Scientists Zhou Shangjun and Wu Miao drew attention to the fact that it is necessary to determine the scope of application of artificial intelligence technologies, as well as to make sure that formulation of algorithms, rules and mechanisms in the process of its application is correct. Artificial intelligence should be considered as actions performed by a machine, but related to human abilities, such as learning, perception, thinking, understanding, recognition, judgment, reasoning, communication, proving, designing, and planning.

There are three stages of the development of artificial intelligence:
— “weak artificial intelligence” (Artificial Narrow Intelligence);
— “strong artificial intelligence” (Artificial General Intelligence);
— “super artificial intelligence” (Artificial Super Intelligence).

These three stages can be correlated with the process of creating digital justice in China. The first stage is characterized by the fact that machines will only process information and systematize it; the second stage is associated with the adoption of autonomous decisions and transfer of various functions related to reasoning and perception; the third stage involves the achievement of human abilities, as well as the possibility of anticipating them by artificial intelligence. However, scientists have not proven the possibility of achieving such results yet.

Thus, only the achievement of the second stage guarantees the receipt of adequate judicial protection, but so far this area reveals a large number of errors and inaccuracies. Besides, society has not formed an clear attitude to robotic justice.

Each of the parties involved in the process of implementing digital subpoenas has different aspirations and objectives, but the main thing should be to achieve a single goal, namely, to ensure protection of the rights and legitimate interests of persons applying to court.

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Another ambitious task is to enhance confidence in the judicial form of protection of law due to the widespread demonstration of the “rule of law”. After all, many disputes will be resolved automatically, due to the correct choice of keywords. The decision-making process will be based only on the norms of law while the process will be protected from external interference.

The problem of external influence on the judiciary in some provinces of China can be solved by actively integrating high technologies into the judicial process. All information on court cases will be accumulated on a single server; information placed there can be analyzed by any person with access. Moreover, Internet court may conduct a demonstration of the court session online, if this is not prohibited by law, which also ensures publicity of the process.

We must not forget that China is a country with huge population and rapid economic growth; most of citizens are engaged in commerce, hence the huge number of disputes that arise need to be resolved daily (Zankovsky, et al, 2018; (Khabrieva, 2018). An acute problem is the lack of judicial personnel and, as a result excessive workload of judges. Thus, in 2015, a judge had to resolve more than 300 cases a year; this led to the reduction in the judicial apparatus. With introduction of artificial intelligence technologies, the number of disputes per judge decreased to 228 cases in 2019 (Shi, Sourdin, & Li, 2021).

It should be noted that during the coronavirus pandemic, the judicial system continued to operate normally. A special role in this was played by the Supreme People’s Court, which accepted 39,347 cases, published 28 clarifications and 17 guidelines, and the people’s and specialized courts accepted almost 30,805 million cases, of which 28,705 million cases were resolved in the amount of 7.1 trillion yuan². Most of the acts of the Supreme People’s Court concerned the implementation of the necessary actions by all the people’s courts to ensure online legal proceedings in civil cases, including with the assistance of artificial intelligence technologies, which proved to be effective in regulating the process of digitalization of justice.

“What courts”

In 2019, the Supreme People’s Court of China issued a notice (General Office of the Supreme People's Court, No. 243, 2019), which highlighted the success in creating intelligent courts as well as implementing the goals set by President Xi Jinping to improve the 3.0 courts’ information system. Further efforts should be focused on artificial intelligence technologies, promoting “smart” litigation, intelligent law enforcement and judicial services, as well as monitoring the construction of “smart” courts throughout China (Shi, Sourdin & Li, 2021).

It should be noted that the people’s courts of all levels are obliged to use in their activities the results of the technical achievements of the national IT companies to construct a common, unified and intelligent judicial system. Achieving these goals will

allow to build a modern justice system and improve the quality of the judicial form of protecting rights and legitimate interests.

The created judicial information platform has made it possible to conduct proceedings in such a way that the courts of all levels are in constant interaction, and provision of judicial protection is carried out without any intermediate links. Besides, this system has made it possible to consolidate various ways of resolving disputes on a single platform, so the parties will be offered mediation, judicial proceedings, expert opinion, consultation, risk assessment and other mechanisms carried out online (Gaivoronskaya, Miroshnichenko & Mamychev, 2019).

The main goal is to standardize the information support of courts by integrating various applications for filing claims or complaints in the mobile platforms of microcourts, downloading electronic court files, and building up a blockchain system. The use of technologies such as text recognition, voice interaction, and machine translation allowed introducing the “Intelligent voice cloud platform of the judicial System” responsible for unified management and control of all applications. The results of this process were a fundamental change in the basic approaches to the dispute resolution procedure, regime for providing judicial protection and, most importantly, procedural institutions.

Adoption of a statement of claim for court proceedings now does not depend on the personal considerations of the judge, but only on fulfillment of formal requirements specified on the judicial platform. The same applies to the decision-making; “intelligent search for similar cases, pop-ups with similar cases, evaluation and forecasting of trials, as well as judicial statistics” allow the judge to make a legal decision while maintaining the unity of judicial practice (Vlasenko & Zaloilo, 2016).

In March 2021, the National People’s Congress approved the 14th five-year development plan, which sets out the desire to continue reforming the judicial system. The most important is further implementation of “smart courts”, which transform the Chinese judicial system into a digital form, making it transparent, accessible, efficient and predictable. Such justice system organization will ensure monitoring of compliance with the law throughout the country, and local authorities will not be able to abuse their rights and interfere with the judicial process3.

The concept of creating smart courts demonstrated China’s commitment to the rule of law, not only within the country, but also beyond its borders. Expansion of online dispute resolution mechanisms with the use of various modern technologies and openness of the judicial platform made it possible to achieve social equality in the process of obtaining judicial protection. Many technologies used by judges at all stages of legal proceedings have been replaced with artificial intelligence technologies, so the search for the necessary files and documents on the case, analysis of judicial practice, preparation of court acts and other functions are carried out automatically without any human involvement. On the other hand, higher courts have been given the opportunity

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to monitor the activities of lower courts, thereby increasing confidence in justice. Moreover, the task of ensuring the uniformity of judicial practice throughout the country will also be solved.

The openness, transparency and accessibility of trials in smart courts have made them more popular among citizens and lawyers, who for a long time faced difficulties related to getting familiarized with the case materials, procedure for conducting interrogations, searching for evidence and others (Gronic, 2020). Currently, with creation of online court platforms, lawyers have access to a variety of reference services, online search as well as feedback from all participants in the process, which allowed to solve some of the existed problems.

Many courts have created special rooms for lawyers to view multimedia files in the courtroom, making it easier for them to work using modern equipment. Shanghai has set up the platform for serving lawyers, which suggests 24 functions in five categories, including online case registration, file viewing, etc.; some functions are particularly popular among lawyers, among them are online case registration, online payment, automatic scheduling of court sessions, automatic submission of related cases and online application for attaching documents and exchanging evidence. As of the end of December 2016, the platform was used by 1,581 law firms in Shanghai, as well as 309 law firms in other provinces and cities. The platform for lawyers was visited 2.04 million times, an average of 2,345 times a day, including 213,249 requests for cases, and 50,065 cases4.

“Internet courts”

The next revolutionary step was the creation of “Internet courts”; there are currently three of them in China, all located in the major commercial provinces of Hangzhou, Beijing and Guangzhou (Huang-Chih, 2020; Rusakova, & Inshakova, 2021).

Their competence includes hearing of civil and administrative cases as a court of first instance at the level of city courts. All of them are connected with business internet activities, namely:

1. disputes arising from online purchase and sale agreements, provision of online services as well as small financial loans;
2. disputes related to copyright infringement on the Internet;
3. disputes concerning violations of personal rights and freedoms on the Internet;
4. disputes related to the liability of the manufacturer of goods under online sales contracts;
5. Internet domain name disputes; and
6. administrative disputes arising from Internet management.

It should be noted that we are not talking about courts hearing a dispute online, but about independent courts, where the procedure and actions, as well as procedural documents are carried out through digital technologies (Dudin, et al. 2019). Guangzhou Internet Court created “Electronic Legal Pavilions” based on 5G + 4K technologies. They provide a clear and stable image of the trial during the entire process, which made it possible to increase the efficiency of court’s interaction with the parties located in different corners of the country. The proof process became much easier and more convenient; such types of interrogations as direct and cross-examination, explanation of the parties began to take place online and the interactive mode of legal proceedings solved the problem of delineation of the administrative division of the country.

In 2019, the Beijing Internet Court created a special center for providing so-called smart judicial services in the online mode — “Online Smart Litigation Service Center”, “Mobile micro-court” and a new resource called “Virtual Judge” (Rusakova, Inshakova & Frolova, 2021).

Li Jingwei, vice president of the Beijing Internet Court, for the first time ever presented a general scheme for building up intelligent online court proceedings, including data storage, video mediation and real-time trial management.

In the press release of the Internet court, all the questions of users were answered; most of them were related to the possibility of resolving civil cases by a “virtual judge”. When asked what a virtual judge looks like, Li Jingwei said that it is the result of the combination of various artificial intelligence technologies, having the image of the real judge Liu Shuhang.

Judge Liu Shuhang demonstrated its functions and paid special attention to the fact that since the Beijing Internet Court works around the clock, the court’s services should not be closed, so it was necessary to change the mode and form of obtaining judicial protection, which is perfectly handled by artificial intelligence technologies.

The virtual judge gives clear answers to the parties to questions related to filing a claim, response to the claim, mediation procedure and others; the search is carried out on the basis of downloaded 20 thousand keywords and more than 120 possible answers.

The Mobile Micro-Court app has made it possible to go to court “anytime, anywhere”, including “video mediation”, audit and consultation procedures available through this app on a mobile phone. For the convenience of users, it is possible to view all the case materials, provide evidence and contact all participants.

In Internet courts, the average time for a case is 40 days; a court hearing usually lasts 37 minutes. Almost 80 percent of litigants in Chinese Internet courts are individuals and only 20 percent are legal entities. Ninety eight percent of rulings are not further appealed.

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Currently, due to the active implementation of technological applications on the judicial platform, the participants in the process have received a faster, more accessible and wide range of services. By the end of 2020, more than 98 percent of courts had opened their websites on the Internet, and provided online access to justice as well as mediation, case information retrieval, and payment for services via mobile phone. All these innovations are aimed not only at meeting the higher demands of the population but also demonstrate the desire to ensure justice through high technology.

Between February 3, 2020 and December 31, 2020, courts across the country handled more than 800,000 cases online, a 160 percent increase over the previous year; the situation with the coronavirus epidemic played an important role.

According to Liu Yanbin, a researcher at the Chinese Academy of Social Sciences, the current task of the Chinese judicial system is to ensure that all judicial data is synchronized into a single database. He said that it was necessary to strengthen the cybersecurity of online judicial platforms and suggested that courts across the country should expand their capabilities to track and eliminate security risks6.

Recently, the number of disputes related to copyright infringement has increased to 30,000 cases in 2020. One of the reasons is the active development of online trade in cultural products; in addition, a new type of cases related to copyright infringement on the Internet with the use of emoticons broadly employed in instant messaging and content created by artificial intelligence technologies has appeared7.

“The Artificial Intelligence”

The desire for technological progress has been consistently reflected in various policy initiatives, such as the “Made in China by 2025” strategy, which aims to make China the world’s leading high-tech producer by 2025, and the “Next-Generation Artificial Intelligence Development Plan”, which has the ambitious goal of becoming the world leader in artificial intelligence (AI) by 2030.

The huge popularity of artificial intelligence technologies in the People’s Republic of China has its own specific reasons, including civil proceedings.

Zhou Shangjun and Wu Miao, in their work “The possibilities and limits of artificial intelligence judicial decision-making” (Shangjun & Miao, 2019), drew attention to the fact that with the advent of a robot judge, it is necessary to limit the process of judicial decision-making using artificial intelligence technologies, since currently widely used legal information search systems and expert opinions in the field of jurisprudence are intelligent auxiliary systems, the development and use of which provide technical and empirical basis for intelligent judicial decision-making systems.

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6  Courts get smarter, more convenient. Beijing Internet Court. Available at: https://english.bjinternetcourt.gov.cn/2021-04/19/c_348.htm [Accessed 10th May 2021].

7 Cao Yin. Beijing Internet Court hears 30,000 online copyright cases. Available at: https://www.chinadaily.com.cn/a/202104/20/Ws607ed421a31024ad0bab9297.html [Accessed 14th May 2021].
According to Professor Zhou Shang, Southwestern University of Political Jurisprudence, artificial intelligence technologies currently do not have the proper level of knowledge of legal reasoning, legal terminology and empirical knowledge to adequately perform their assigned function, and for this, it is necessary to determine the limits of replacing a human judge with artificial intelligence technologies. In addition, like any other party, China should think about fulfilling its obligations concerning international security. Despite integrating breakthrough technologies in the judicial process, each State should think about the consequences of such process, since this is one of the main guarantees provided to citizens and individuals located on the territory of the State.

Zhou Shangjun Wuku also stressed that idea of creating machine judges even more than a hundred years ago raised concerns with regard to the process of “impersonal” action of the modern rule of law that would become a kind of objectivity in the era of “artificial intelligence” technologies. Replacing a human judge with a robot judge can lead to irreversible consequences and a mixed attitude to justice. On the one hand, technology guarantees unbiased legal decision; on the other hand, it also requires adequate knowledge and skills from persons applying for such protection to properly reflect their claims on the judicial platform in the information and telecommunications network “Internet”.

According to scientist Xu Song, China is tasked with ensuring fair, impartial justice and effectiveness of the judicial system; they can be achieved only through integration of artificial intelligence technologies. This position is explained by the fact that a judge, like any person, is subject to emotions. Their believes and feelings may sometimes contradict the norms of the law, hence, as judicial practice shows, decisions on similar cases can be different. Besides, at various stages of the process, the machine can adjust the actions of the persons involved in the case depending on the type of production; it often performs certain actions instead of them (Edwin, & Yong, 2018; Kuznetsov, 2020).

Scientists Zhou Shangjun and Wu Miao presented the basic algorithm of the machine: “External information — processing system — knowledge base — completed task”, such a mechanism allows to search for necessary information, including in law. It is worth noting that despite the breakthrough steps in this process, current artificial intelligence technologies are used everywhere in court proceedings, and are limited only by agreement of the parties (Guo, 2021; Guo, 2018).

**Conclusion**

The ongoing digital revolution has fundamentally changed the judicial system and civil procedure in China. The Chairman of the Supreme People’s Court of China, Qian Xiaochen, said that the judicial form of protecting rights and legitimate interests is more effective, as evidenced by statistics. For example, more than 3,500 people’s courts provide 29 types of judicial services online, and in 2020 alone, more than 10 million cases were heard through WeChat. Placement of other applications on the judicial information platform that offer parties to turn to other ways of resolving
disputes has proved its relevance among the population. Only in one year 13.6 million cases of mediation were conducted, of which 65 percent were successful. He also noted that the judicial community is aimed at overcoming the “digital divide” in society, especially for the elderly; so, when testing new applications, special attention is paid to the needs of different age groups.

The conducted research allows to conclude that Chinese judicial system is adapted to integrate various artificial intelligence technologies as evidenced by judicial practice.

It should be noted that traditional work of court employees is constantly automated: manual records are replaced with machine translation, quick search for necessary information and files, as well as digitization of evidence, significantly accelerated the proceedings and prevented possible inaccuracies in the procedural actions of all participants in the process.

One of the global challenges of legal proceedings is to achieve justice for all persons seeking protection of their rights through strict compliance with the law, which can be achieved, according to scientists and the Government of the People’s Republic of China, through integration of digital technologies. The virtual judge is a source of ensuring the rule of law, free from external influence.

Such approach can lead to the fact that most minor civil disputes will be resolved automatically and the person applying for judicial protection will be deprived of the right to defend their rights in court, to present their arguments and prove their point of view. Court proceedings in the first instance will no longer be the main stage of civil proceedings, where the case is considered on the merits; this may lead to an overload of the appellate instance.

Despite identification of the positive and negative features of artificial intelligence technologies in court proceedings, the limits of replacing a person with a robot completely depend on humans but not on the uncontrolled action of machines.

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