

Research article

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Implementing Rule of Law Concept in the Digital Sphere: China's Experience



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Abstract

The paper provides a discussion of the policies pursued by the Chinese government in implementing the concept of the rule of law through the use of digital technologies. China's recent achievements in creating the digital infrastructure and developing the digital economy are discussed. The paper explains how the Chinese government use the Internet, big data, artificial intelligence and other technologies to promote legal governance and achieve a synthesis of information technologies and the rule of law in public governance in terms of process and method. Since China is a country with an extensive territory and large population where improving the access to and quality of justice is problematic, policies are pursued to actively introduce modern digital technologies to digitize justice. Judicial institutions across the country also have a varying degree of experience of promoting smart justice. In 2021 and 2022, the Supreme People's Court of China published one by one the following three major rules for online activities of courts: Rules for Online Justice; Rules for Online Mediation; Rules for Online Operation, to make online judicial operations across the board well-regimented. Guided by these three rules, Chinese courts have made certain progress in recent years to make their operations digital and smart. Since promoting the digital rule of law means the cultivation of talent, an enabling political environment was created to improve legal skills and cultivate specialists with competencies in the area of artificial intelligence, big data or cloud computing. The problems faced by China in promoting digital justice are currently experienced by many countries worldwide. The author aim is to explain the Chinese regulatory model to share this experience with other countries.



Keywords

rule of law; Chinese law; digital technology; digital economy; artificial intelligence; digitalization of justice; legal education.

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Background

Building a system of the socialist rule of law specific to China and a socialist state governed by the rule of law are the key objectives for the comprehensive promotion of rights-based governance mentioned for the first time at Central Committee of Chinese Communist Party fourth plenary meeting at the 18th session. Later these objectives were reaffirmed in Xi Jinping's report to the All-China CPC Congress in 2017. Building the rule of law in contemporary social context is inseparable from modern technologies; similarly, digital technologies cannot rapidly develop without legal guarantees. On 07.12.2020 Central Committee of Communist Party has published Guidelines for the Development of Law-Governed Society in the form of a five-year plan (2020–2025)¹ which mentioned "a need for extending the social governance from real society to cyberspace, creating a reliable and comprehensive cyber-governance system, strengthening the law-based governance of and access to the Internet, comprehensively promoting the rule-of-law principle in the cyberspace to make it pure and limpid". On 10.01.2021 the CC CPC has issued a Plan for Building the Rule of Law in China (2020–2025)² for systematic and consistent unfolding of the ways to advance the rule of law in the new age, with the following steps envisaged by Part VI of the Plan: "Fully use big data, cloud computing, artificial intelligence and other modern technologies for comprehensive smart governance in the legal sphere, and promote the rule of law in China through the use of data, networks and intellect". The development of law has a history of its own; it is

¹ Available at: <https://baijiahao.baidu.com/s?id=1685418013912273009&wfr=spider&for=pc> (accessed: 23.07.2023)

² Available at: https://www.gov.cn/xinwen/2021-03/13/content_5592681.htm (accessed: 04.08.2023)

constantly perfected and developed in line with socioeconomic development and changes to production methods and ways of life. The emerging technologies such as the Internet, artificial intelligence, big data and cloud computing are being integrated into all aspects of the rule of law at an unprecedented pace. It is necessary to overview in detail the implementation of the concept of the *rule of law* in the digital sphere in China.

1. The Overall Description of Digital Infrastructure and Digital Economy in China

It has a sense to overview major policies and recent data as the starting point to explore China's experience in the sphere under study.

On 13.03.2021 the Chinese government has published the Main Provisions of the 14th Five-Year Plan of China's Economic and Social Development and Prospective Goals until 2035³ proposing to "lay down and build new types of infrastructure for data, convergence, innovation etc. with a focus on supporting digital change, smart upgrade, convergence and innovation. We will create a high-speed interconnected, safe and efficient data infrastructure, and expand the potential for data collection, transfer, storage and computation. We will accelerate the deployment of 5G networks on a large scale, promote the modernization of gigabyte fiber optic networks and prospective planning for facilities to support 6G networks". The government has indeed made enormous effort to create its data infrastructure, with the following results being achieved:

According to the 2022 Digital China Development Report published on 23.05.2023, a total of 2,312,000 5G base stations were build and made available by late 2022, with 5G users reaching 561 million or over 60% on the global scale, and 110 cities across the country achieving the standard of urban fiber optic networks⁴.

On 12.12.2021 the State Council of China has issued the 14th Five-Year Plan for the Development of Digital Economy⁵ proposing the following devel-

³ Available at: https://www.gov.cn/xinwen/2021-03/13/content_5592681.htm (accessed: 04.08.2023)

⁴ Available at: http://www.100ec.cn/Public/Upload/file/20230524/1684892315684_384.pdf (accessed: 07.08.2023)

⁵ Available at: https://www.gov.cn/zhengce/zhengceku/2022-01/12/content_5667817.htm?eqid=c4ae80350001561d000000026458635b (accessed: 06.08.2023)

opment objective: “By 2025, the digital economy will be in expansion across the board, with the added value of its core branches at 10% GDP”. According to the researcher Z. Zhou, “digitization is based on data. As the world ushers the era of Internet, the generation, receipt, storage and use of data will become increasingly widespread while their role in social life more important. Data becomes a major production and market factor, with the data potential becoming the national development potential and faster digital development an obvious choice for promoting socioeconomic development and the new competitive advantages of the country” [Zhou Z., 2023:14].

Over the last few years the Chinese government has accelerated the development of data, with data production in China at 8.1 ZB in 2022, a 22.7% growth over the previous year. By late 2022, the amount of data stored in China reached 724.5 EB, a 21.1% growth over the previous year. In 2022, China's big data industry was worth CNY 1.57 trillion adding 18% against the previous year⁶.

The digital economy has become a major driver of the national transformation along with the rapid development of data resources. As reported in the White Paper on China's Digital Economy Development published by the China Academy of Information and Communication Technology in April 2023, the digital economy's added value grew from CNY 2.616.1 trillion in 2005 to 50.2 trillion in 2022 while its share of GDP was 41.5% to equal that of the processing industry⁷. In particular, the data industry generated CNY 15.4 trillion in revenues in 2022 or 5.5% more than over the previous year; revenues from IT services were CNY 701.28 billion (plus 11.7% over the previous year); revenues from cloud computing and big data were CNY 1042.7 billion (plus 8.7% over the previous year); revenues from the development of integrated circuits were CNY 279.7 billion (plus 12.0% over the previous year); and revenues from technical services for e-commerce platforms were CNY 110.44 billion (plus 18.5% over the previous year). Retail sales via the Internet reached CNY 13.79 trillion, a 4% growth over the previous year. The number of those using online offices, online trip booking and online medicine reached 540 million, 420 million and 360 million, respectively, with growth rates of 15.1%, 6.5% and 21.7%, respectively⁸.

⁶ Available at: <http://www.100ec.cn/Public/Upload/file/20230524/1684892315684384.pdf> (accessed: 07.08.2023)

⁷ Available at: <http://www.caict.ac.cn/kxyj/qwfb/bps/202304/P020230427572038320317.pdf> (accessed: 05.08.2023)

⁸ Available at: <http://www.100ec.cn/Public/Upload/file/20230524/1684892315684384.pdf> (accessed: 07.08.2023)

It is worth noting, that, despite these success stories, implementing digital rule of law in China is still at an early stage marked by both breakthrough achievements and numerous challenges. Thus, the State Council of China's digital economy development report of 28.10.2022⁹ noted main problems at the moment: "The system of rules adapted to the development of digital economy as well as the data framework are still under development; there is a need to improve the governance of platform economy, so that it is able to encourage activities and guarantee security; it is also necessary to further expand the extent of participation in the international governance of digital economy".

2. Promoting E-Governance in China

The e-government reform has been accelerating in China since 2015 as reflected in the government's annual work reports.

In the 2015 report¹⁰ it was proposed to "promote e-government and online administrative services". In the 2016 report¹¹ a focus was made on "actively introducing the Internet + government services, implementing inter-agency data sharing and reducing the number of queries filed by individuals and companies to different administrative authorities on one and the same problem, with good quality and barrier-free online service to be ensured". The 2017 report¹² contained the proposal to "speed up the pooling of data systems maintained by the State Council and local authorities to make up a nationwide public services platform". The 2018 report¹³ required to provide more online services and to achieve the objective of "single platform processing of applications" and "inter-province online service provision". Where a physical visit is required, the objective should be to provide "one-stop offline services to settle all issues once". The 2019 report¹⁴ proposed

⁹ Available at: https://www.gov.cn/xinwen/2022-11/28/content_5729249.htm?eqid=83731da900019c5f0000000564643bf1 (accessed: 06.08.2023)

¹⁰ Available at: https://www.gov.cn/guowuyuan/2015-03/16/content_2835101.htm (accessed: 04.08.2023)

¹¹ Available at: https://www.gov.cn/guowuyuan/2016-03/05/content_5049372.htm (accessed: 06.08.2023)

¹² Available at: <https://www.gov.cn/guowuyuan/2017zfgzbg.htm> (accessed: 08.08.2023)

¹³ Available at: <https://www.gov.cn/zhuanti/2018lh/2018zfgzbg/zfgzbg.htm> (accessed: 03.08.2023)

¹⁴ Available at: <https://www.gov.cn/zhuanti/2019qglh/2019lhfgzbg/index.htm> (accessed: 27.07.2023)

to “create a single national online public services platform and introduce a quality assurance system for public services”.

The 2020 report¹⁵ proposed “to expand service delivery via a single platform, with all work addressing company problems to be performed online”. The 2021 report¹⁶ focused on the need to “reinforce the building of e-government, create a reliable mechanism for coordinated government data sharing, promote the use of e-certificates, national compatibility and mutual acceptance, and to provide for more government services to be delivered online using a smart phone”.

The concept of e-government was mentioned for the first time in the 2021 government work report, with the government further publishing the Main Provisions of the 14th Five-Year Plan of China's Socioeconomic Development and prospective objectives for 2035¹⁷ to specify the task of building e-government in a special chapter entitled “Enhancing the level of building e-government” which formulated clear requirements to “wide use of digital technologies in public governance to simplify the relevant processes and streamline the regimes for more evidence-based decision-making and more efficient service delivery”. The E-Government Program (2021–2025)¹⁸ launched in August 2021 has identified clearly the objective and goal of “building comprehensive e-government” and required “to insist on the use of Internet, big data, artificial intelligence and other technologies for promoting law-compliant public governance, strive towards a synthesis of digitization and rule of law, streamline and update governance processes and methods, actively enhance the level of digitization in building e-government”. Moreover, the Program explicitly calls “to rely on the single public services platform and other channels to adequately implement the principle “do it now, do it online, do it next door, do it all at once, do it to help yourself and do it across the country” in the delivery of administrative services”.

According to one researcher, “the new mechanism of e-government platform has made of the government as a platform and citizens as users a

¹⁵ Available at: http://www.jl.gov.cn/zw/yw/jlyw/202005/t20200531_7246213.html (accessed: 01.08.2023)

¹⁶ Available at: http://www.jl.gov.cn/zw/yw/jlyw/202103/t20210313_7966172.html (accessed: 07.08.2023)

¹⁷ Available at: https://www.gov.cn/xinwen/2021-03/13/content_5592681.htm (accessed: 02.08.2023)

¹⁸ Available at: https://www.gov.cn/gongbao/content/2021/content_5633446.htm (accessed: 03.08.2023)

triple intersecting mechanism for cooperation between public authorities, private power and individual rights rather than a simple point of exchange between the government and individuals” [Ma C., 2022: 20]. Moreover, with the emergence of “digital space government” and digital rule-of-law mechanisms, comprehensive public services have dramatically improved in efficiency [Chen X., Pan Y., 2021: 97–106].

On 06.06.2022 the State Council has issued the Guidelines to enhance e-government¹⁹ “by significantly improving the extent of digitization and functional intelligence by 2025, achieving major progress in evidence-based governmental decision-making, accuracy of social governance and efficiency of public services, with e-government playing a major role in supporting the key party and public strategies, promoting high-quality economic and social development, and building a government to satisfy people’s needs”. At the same time, in building a comprehensive rights-based e-government, it is necessary to “promote the use of technologies, streamline the processes and institutional innovations in accordance with law and regulations, remove technological discrimination, ensure privacy and protect the interests of market players and the public”.

From 2012 to 2022 China, according to statistics, has improved its position in the international e-government development index rising from 78th to 43rd place as one of the fastest growing countries. The national e-government has achieved full outreach at the level of cities and districts covering 96.1 percent of populated areas. The universal national public services platform (<http://gjzfw.www.gov.cn>) has registered more than 1 billion users with real names and standardized services for more than 10 thousand popular applications, with a large number of the most frequent queries to public services now available for “inter-province consulting” to effectively address the issues of administrative complexity and slowness for market players and the public. The digital information platform of the All-China Assembly of People’s Representatives has been officially launched, with “smart courts” and “digital prosecutor’s offices” widely used to increase the functional purpose of public authorities²⁰.

In drafting the 20th Party Congress Report the relevant departments of the Central Government held online consultations to receive more than

¹⁹ Available at: https://www.gov.cn/zhengce/zhengceku/2022-06/23/content_5697299.htm (accessed: 05.08.2023)

²⁰ Available at: <http://www.100ec.cn/Public/Upload/file/20230524/1684892315684384.pdf> (accessed: 07.08.2023)

8,542,000 messages. Drafting of Civil Code involved 10 sessions held on-line, with 1,02 million comments and proposals sent by 425 thousand people, of which 114,574 comments were received from 13,718 citizens over the period from 28.12.2019 to 26.01.2020 alone²¹. As could be seen, technological innovations open up the opportunities for socialized governance, shape a new e-government model of collective design and use, and improve the subjective willingness of the people to participate in building e-government.

Electronic, digital and smart technologies permeate all spheres of public production and life across the board. While people generally enjoy the conveniences of the emerging “smart technologies”, their unfriendly aspects start to be felt as well. As artificial intelligence is introduced into public governance, the technological change and ethics should become increasingly interrelated, with ethical duties embedded in technologies to be integrated into the overall system of governance values. Apart from supporting the general values of order, efficiency and justice, public governance should also address the issues of security, confidentiality, openness, transparency and responsibility brought about by the use of technologies [Wang Z., Yan J., 2020:3]. Over the last few years, the National Professional Committee on Next Generation AI Governance issued a number of regulations on AI and ethics, such as the Governance Principles of Next Generation AI — Promoting Responsible AI of 17.06.2019²² which underlined that “AI development should be directed at improving the overall wellbeing of humankind; should support human values and ethics, promote the harmony between man and computer and serve the progress of human civilization; should be based on the premise of ensuring public safety, respecting the rights and interests of humankind, and prohibit abuse and illegitimate practices”. In the Ethical Regulations for Next Generation AI of 25 September 2021²³ it was noted that “these Regulations purport to embed ethics into the whole AI lifecycle, promote fairness, justice, harmony and security, and also avoid problems such as prejudice, discrimination, violation of privacy and information leakage”. Later on 20.03.2022, the State Council’s General Office has published the Opinions for Better Ethical Governance of Science and

²¹ Available at: https://m.thepaper.cn/baijiahao_12718052 (last accessed on: 08.08.2023)

²² Available at: <http://cn.chinadaily.com.cn/a/201906/17/WS5d07441ea3108375f8f2a-fac.html> (accessed: 05.08.2023)

²³ Available at: https://www.most.gov.cn/kjbgz/202109/t20210926_177063.html (accessed: 25.07.2023)

Technology²⁴ stated that “R&D activities should adopt an objective and balanced approach to assessing the uncertainty and risks resulting from the use of technology, attempt to avoid and prevent the risks likely to arise, prevent abuse and illegitimate practices in using R&D achievements, and avoid threats to public order, biological and environmental safety”. The said provisions are important reference points valuable for building the digital rule-of-law, and serve as baseline standards and scale of values for robust, correct and reasonable technological change.

A digital rule-of-law state should be built with a view to shaping the digital civilization ecosystem for society as a whole and support common human values, respect human rights and fundamental interests, and also promote fair, equitable, controllable and reliable, open and transparent governance.

3. Digitization of Justice in China

The introduction of modern technologies is the best way to improve the access to and quality of justice.

The National Digitized Development Strategy published by the State Council's General Office on 27.07.2016²⁵ has made of “building smart courts” a strategy for China's digitized development. In July 2017 the State Council's General Office has published the Development Plan for Next Generation AI²⁶ again stressing importance of “building smart courts”. In February 2019 the Supreme People's Court has issued the 5th Five-Year Court Reform Program (2019–2023)²⁷ with an objective of “building unique socialist and advanced smart courts in China as well as systems for their use”, something that has paved a clear way for digitizing justice.

On 18.05.2021 the Supreme People's Court has issued the Rules for Online Justice²⁸, with Article 1 establishing legal status and validity of online proceedings: “People's courts, parties to proceedings and other participants

²⁴ Available at: https://www.gov.cn/zhengce/2022-03/20/content_5680105.htm (accessed: 02.08.2023)

²⁵ Available at: https://www.gov.cn/zhengce/2016-07/27/content_5095336.htm (accessed: 03.08.2023)

²⁶ Available at: http://www.gov.cn/zhengce/content/2017-07/20/content_5211996.htm (accessed: 09.08.2023)

²⁷ Available at: <https://www.court.gov.cn/zixun-xiangqing-144202.html> (accessed: 01.08.2023)

²⁸ Available at: <http://www.njgl.gov.cn/ztzl47815/yhyshjzc/fy/202107/P020210729626098661614.pdf?eqid=ce969ab5000e87600000000364286c8e> (accessed: 04.08.2023)

can use the e-justice platform to complete the proceedings, in whole or in part, online via the Internet or dedicated network, for instance, to lodge a lawsuit, mediate, exchange the evidence, hold an interrogation or court session, deliver service of process, etc. Online legal proceedings are as valid as those held offline. In fact, the Rules detail the principles to be followed and the distinctive features of online proceedings.

On 27.12.2021 the Supreme People's Court also has issued the Rules for Online Mediation²⁹ to specify the scope of mediation. It covers “civil and administrative disputes, enforcement proceedings, and private prosecution and civil claims arising from criminal proceedings where the defendant (delinquent) is not in custody and which can be mediated or settled under the law”. Due to case specifics, the Rules also envisage that “disputes can be mediated online in whole or in part, with the will of the parties to be observed in full. The people's court should seek the parties' consent to online mediation taking into account the circumstances of the case and technical requirements. The parties may jointly appoint an entity and staff for mediation, as well as apply to replace the entity and staff in the course of mediation”. As for procedure for online mediation, the Rules apply to the relevant guidelines, appointment of an entity and staff for mediation and exceptions, use of audio and video mediation, drafting of mediated agreements, examination of failed mediation cases, period of online mediation, completion of online mediation etc., to fill the gaps in prior online mediation procedures. The Rules also provide ethical guidelines for entities and staff involved in online mediation, and propose to create a national register of mediators for promoting the exchange of online mediation resources.

On 26.01.2022 the Supreme People's Court has issued the Rules for Online Proceedings³⁰ comprising 5 parts and 45 articles defining online platform and its operating mode — how to register and manage users online, access the system through personal identification, mediate, pay duties, download documents, simultaneously create case files, check, give and examine evidence, read and archive files, litigate online, execute judgments, etc.

The above three main online rules for courts allow to regulate and standardize all online proceedings across the board reflecting the creation of a system of basic online justice rules specific to China.

²⁹ Available at: <https://www.court.gov.cn/fabu-xiangqing-339521.html> (accessed: 04.08.2023)

³⁰ Available at: <https://www.court.gov.cn/xinshidai-xiangqing-346471.html> (accessed: 25.07.2023)

As a giant country with large population, China has a highly complex system of judicial information. All across the country the courts guided by a number of national strategies and policies actively master the regime of smart justice adopting a number of key technologies characterizing the judicial AI. On 01.03.2022 the Supreme People's Court has transformed and upgraded the original China Mobile Micro Court system into the People's Court Online Service. The new service is a mini app allowing users to lodge a suit by opening We Chat. In 2022 a total of 10,718,000 lawsuits were filed via the mobile version of the People's Court Online Service, or 30.6 percent more than in the previous year, with 61 lawsuits filed each minute on average³¹. The People's Court Online Service brings together and consolidates the nationwide functions of the general judicial service such as mediation, lodging of lawsuits, maintenance of evidence, legal enquiry findings etc., helping people to make queries for and settle legal, mediation and other issues at courts across the country to achieve the goal of "one network to have things done" and to do away with the earlier online system of multiple access points to courts of all levels that involved complex choices.

Judicial authorities across the country also have different experience of exploring the usage of online judicial services of various forms and characteristics [Xu J. et al., 2021:59], such as Project 206 launched in 2017 by Shanghai political and judicial bodies. Today courts in Shanghai have a fully established online system for lodging lawsuits. Once there is network connection, people can have access to judicial services anywhere anytime through the website, official WeChat account and mini apps that considerably reduce the past inconveniences of long trips and long queues to get admitted and registered. According to statistics, while before 2020 the annual number of online court sessions and online proceedings in Shanghai was, respectively 26 and 48, these two indicators reached 918 and 365 thousands respectively as of January 2023 (over the whole of 2022)³². Moreover, "asynchronous proceedings", a new term coined in 2022, is becoming increasingly popular to considerably change the past image of court sessions. If the parties and the judge assist a session at the same time but at different points in space, it can be called model online proceedings, that is, an online court session. If the parties and the judge assist a session at different places

³¹ Available at: <https://baijiahao.baidu.com/s?id=1758034255248159680&wfr=spider&for=pc> (accessed: 01.08.2023)

³² Available at: <https://baijiahao.baidu.com/s?id=1757046295669938835&wfr=spider&for=pc> (accessed: 01.08.2023)

and even at different times, it is called asynchronous online court. Asynchronous proceedings are accessible via a micro-court platform developed by the Shanghai courts. In terms of its exterior and functions, the platform resembles WeChat but has the same validity as offline legal proceedings. Upon mutual consent, the parties can access the platform's relevant interface and, once their IDs are validated, assist the court session in the form of a web conference. The judge may restrict the group chat's by term maximum to 20 days. Following access to micro-court, a party can load evidence, with the other parties having ample time to access the evidence and express their opinion over the effective term during interrogation, with texts, photos, scans, audio and video files uploaded in the process. Judges and litigating parties can have timely access to uploaded documents and presentations which are fully monitored and can be directly archived. According to N. Zhang, deputy director of the litigation management office at the Shanghai Supreme Court, "previously many people had to wait for court sessions because the court schedule was often congested. In 2022, asynchronous proceedings were widely used, with 155 thousand cases handled in the asynchronous mode by the end of December to make 42.5 percent of all online sessions"³³.

In enforcement a system of comprehensive asset search and control used by Shanghai courts allows with a mouse click to request all registration data on bank accounts, stocks and network funds of the person in question within three days. This procedure used by bailiffs in Shanghai implements an automatic host-level enforcement proceedings reminder and automatically generates blank documents and even blocks the delinquent's accounts, travel cards, etc.³⁴

As regards precedent selection, the Jinhua court (Zhejiang province) has developed a big data analytics platform to identify similar judgments which allows to typify party behavior, nature and outcomes of disputes, as well as provisions applicable to similar judgments. An analysis of the situation across the country suggests that a search for similar judgments was supported in 2020 by 3,276 courts in terms of the legal and actual circumstances of the original case, 3,250 courts in terms of the applicable provisions, and 3,210 courts in terms of full elements of matching cases [Chen S., Tian H., 2021:40].

³³ Available at: <https://baijiahao.baidu.com/s?id=1757046295669938835&wfr=spider&for=pc> (accessed: 07.08.2023)

³⁴ Available at: <http://www.e-gov.org.cn/article-161969.html> (accessed: 05.08.2023)

As regards smart assistance to qualify crimes and render judgments, the Supreme Court of Shanghai, in view of a large number of cases to be handled, has conducted a profound study based on comparison of actual case circumstances using an AI-assisted semantic analysis technology, and created a neural network to assist judges in rendering judgments. The Hainan Court has developed a smart system for crime qualification which, through comprehensive analysis of charges, statements and other process documents, segregates and classifies the facts through the use of AI to generate automatic crime qualification advice to judges based on big data. A comprehensive assessment has found that big data based advice to set penalties and qualify crimes was available to 2,556 courts [Chen S., Tian H., 2021:36].

With regard to divergence warning, the Jiangsu Court has developed the same case different judgment early warning platform that can be based on the principle “identical judgments for identical cases”. Where a judgment deviates from the set parameter values, the system will generate a manual review reminder. The system is designed to regulate judicial discretion, encourage similar judgments for identical cases and help the court president to exercise monitoring and administrative powers. At the Guizhou Court, a similar system “big data judicial mirror” has analyzed 93,558 cases across the country to prevent the divergence of judgments rendered by AI, with significant deviations found in 3,078 cases. This system uses a comparative indicator of standard values to prevent major deviations from standard values and generate reminders to judges that can also be checked by the court president [Ye F., 2019: 372].

Voice recognition systems to create audio minutes of court sessions are currently used across all provinces with an overall accuracy of voice recognition at more than 90 percent, case hearing time down by 20-30 percent, and minutes completion rate at 100 percent. An assessment has found that in 2020 a total of 3,258 courts in China had voice recognition systems for court proceedings [Chen S., Tian H., 2021:37].

Collective efforts by courts of all levels have largely increased the digitization of justice across the country. With 11,439,000 online hearings in 2021, more than 20 million sessions were broadcasted live via the open proceedings website (<http://tingshen.court.gov.cn>) as of September 2022 with more than 50 billion visits. Court orders were published in China’s website for court judgments (<https://wenshu.court.gov.cn>) more than 130 million times and visited more than 90 billion times to implement in full the right of individuals to information and control for higher pres-

tige of judicial authorities³⁵. According to a study, “China’s justice digitization system provides one of the most extensive judicial services networks worldwide” [Sun X., 2021:123–144].

4. China’s Model for Training Specialists in Digital Justice

According to a study, “legal training is a major branch of higher education with a strong practical focus and comprehensive knowledge system, unique place and function to provide talent for building a state based on the rule of law. However, due to its long history it is subject to obsolete and persistent problems with strong traditional legacy invariably calling for reform. The digital age has put legal training in the face of serious tasks” [Ma C., 2023:101].

With the joint Declaration to create new humanities adopted by the universities concerned at the New Humanities Workshop³⁶ in November 2020, a discussion of “new jurisprudence” was launched. Professor Xu X. believes that “new humanitarian science should advocate a new idea, identify a new mission, build a new content and use new methods. This will inevitably result in new jurisprudence” [Xu X., 2021:13].

What is new jurisprudence? Professor Ma C. is more specific: “With digital life and digital age open to humankind, the next stage to transform and upgrade modern jurisprudence will be digital jurisprudence with a historical mission of radical change and innovative development based on the legacy of today’s jurisprudence” [Ma C., 2023: 9].

Other authors advocate the “computational jurisprudence” concept arguing that “it serves to embed computational thinking into the study of legal problems, apply computational techniques to big data analysis, and bring together computational technologies to study legal science and technology in recognizing the differences between objects, methods and computational capabilities which result in legal problems and associated technical issues” [Shen W., Liu Y., 2020:3].

It is believing that concept of “digital jurisprudence” in the digital age is more adapted to modern development requirements and more often used in certain regulations. It is useful to discuss the point in details.

³⁵ Available at: <https://www.chinacourt.org/article/detail/2023/03/id/7199082.shtml> (accessed: 05.08.2023)

³⁶ Available at: https://www.eol.cn/news/yaowen/202011/t20201103_2029763.shtml (accessed: 03.08.2023)

The development of digital jurisprudence will eventually translate into training of specialists, with a favorable political environment long in existence in China. On 20.07.2017 the State Council published the Development Plan for Next Generation AI³⁷ for cultivation of composite talent with the knowledge of “AI + Law”. In September 2018 the Ministry of Education jointly with the Central Political and Legal Affairs Commission issued their Opinions on the implementation of education program and training of legal talent 2.0³⁸ which proposed the learning concept “Internet + law”.

Moreover, in February 2020 Ministry of Education, National Development & Reform Commission and Ministry of Finance have issued their Opinions on further integration of disciplines and acceleration of AI master and postgraduate training at double first class colleges and universities³⁹ proposing to create a skill development system equally focused at fundamental theoretical skills and comprehensive AI+X skills, and also to promote the cross-fertilization between AI and allied disciplines such as law and other philosophical and social sciences.

In February 2023 the General Office of the CC CPC and that of the State Council published their Opinions on strengthening legal training and legal theory studies in the new age⁴⁰ explicitly proposed to “speed up the development of new disciplines such as digital jurisprudence”.

The emergence of digital economy, e-government and e-society has prompted many universities to offer training in new legal disciplines or cross-disciplinary subjects such as Internet law, information law, data and law, computational law etc., and to establish the Institute for Future Rule of Law (People’s University of China, 2017), Institute for Smart Rule of Law (Tsinghua University, 2018), Institute for AI Law (South West University of Political Science and Law, 2017; Shanghai University of Political Science and Law, 2019), Institute for the Rule of Law in the Internet (East China University of Political Science and Law, 2019), Institute for the Digital Rule of Law (East China University of Political Science and Law, 2020; Zhejiang University, 2021), Institute for Data

³⁷ Available at: https://www.gov.cn/zhengce/content/2017-07/20/content_5211996.htm (accessed: 04.08.2023)

³⁸ Available at: https://www.gov.cn/zhengce/zhengceku/2018-12/31/content_5443534.htm (accessed: 02.08.2023)

³⁹ Available at: https://www.gov.cn/zhengce/zhengceku/2020-03/03/content_5486326.htm (accessed: 28.07.2023)

⁴⁰ Available at: https://www.gov.cn/xinwen/2023-02/26/content_5743383.htm (accessed: 30.07.2023)

and the Rule of Law (China University of Political Science and Law, 2021) and many other research institutes or organizations.

Building a comprehensive and systematized system of disciplines for digital jurisprudence is one the main issues to be addressed by major law schools. What competencies should experts in digital jurisprudence have: to interpret laws and analyze cases or to program and process data? In our view, the main purpose of training in digital jurisprudence is to bring together the knowledge of law and technology, comprehensively integrate humanities and natural sciences, and to train law students into digital lawyers on the basis of fundamental digital knowledge to master basic computing and programming skills and be able to analyze big data and algorithms. It has a sense to look at what is practiced by China's major universities.

In May 2019 Shanghai University of Political Science and Law established the Institute for AI Law⁴¹ by merging then computer training department and the Shanghai Justice Institute. In 2019 students were officially enrolled for bachelor degree in law” (AI and law). The purpose of training available in the Institute's website was as follows: “training of specialists meeting the requirements of the socialist rule-of-law state and of the national AI development strategy, possessing the fundamental theoretical knowledge of artificial intelligence and law, spirit of the rule of law, innovative thinking, global vision and practical skills, capable of conducting AI-related research and using legal applications, laws, regulations, ethical standards and political systems at national judicial bodies, administrative offices, enterprises, public agencies and research institutions and other departments”. The main courses are: theory of state and law, constitutional law, civil law, criminal law, administrative law and administrative litigation, business law, intellectual property law, civil law of procedure, criminal law of procedure, international law; AI basics, Python programming, statistics and data analysis, knowledge discovery and data production, introduction to network and information security, e-evidence and blockchain, legal data management system, legal analysis of big data, AI application to law; introduction to AI jurisprudence, introduction to AI ethics, regulation of AI etc.

The Institute for the Digital Rule of Law⁴² was established at the Zhejiang University on 27.03.2021 upon the common initiative of the Univer-

⁴¹ Available at: <https://www.shupl.edu.cn/rgznfxy/1809/list.htm> (accessed: 29.07.2023)

⁴² Available at: <https://www.zju.edu.cn/2021/0328/c41532a2272002/page.htm> (accessed: 06.08.2023)

sity and Supreme Court of Zhejiang. The Law Department of the Zhejiang University makes part of the Humanities Faculty while the Institute for the Digital Rule of Law is university-level platform for cross- disciplinary research. The Institute is managed by the Law Department, with a well-known professor of computer science department invited as Vice-Director and a number of teachers from the same department are involved actively in its work. The Zhejiang University is advocating a new model of practical training in digital jurisprudence by proposing talented first-year students to join the Digital Jurisprudence Team since 2022. Starting from the bachelor degree, the Zhejiang University provides students with academic and practical tutors on the basis of 1+1 system. Qualified and talented students can pass on to a master and postgraduate course without exams. Students are proposed basic courses in law such as the history of law in China, general criminal law, general civil and constitutional law and computer courses including C programming, introduction to natural language processing, artificial intelligence and machine learning, as well as introduction to cyberspace security, basic AI programming, computational text analytics, AI ethics and security, database operating principles, deep learning, blockchain and digital currencies etc.

To produce learning materials, C. Ma, professor at the East China University of Political Science and Law, has organized a team of writers with the knowledge in allied sciences, with the first domestic manual “A General Study of Digital Nomocracy” printed in April 2022. The manual has four sections and 16 chapters covering the issues arising in China in the digital age, and the relevant case studies [Ma C., 2022: 504]. In July 2023 the “Digital Legal Theory” was published. This systematic study of digital law disciplines has four parts — main theory of digital law, e-law, law and data, AI law — that give an idea of the advanced aspects and main theories of digital law [Jiang W., Long W., 2023: 559].

According to statistics, a total of 1.59 million students in Internet and communication-related subjects or 15 percent of all graduate students will complete their studies in 2022⁴³. In the future, a combination of digital technologies and jurisprudence will provide graduates with multi- discipline skills. However, it should be borne in mind that jurisprudence in China is focused at cultivating comprehensive knowledge and lifelong education while a vast majority of researchers received a bachelor, master or PhD de-

⁴³ Available at: <http://www.100ec.cn/Public/Upload/file/20230524/1684892315684384.pdf> (accessed: 07.08.2023)

gree as part of the legacy of traditional training in law without opportunity for multi-disciplinary vocational training [Yuan Z., 2023: 120–121]. Modern legal training should also start with comprehensive theoretical training of teaching staff, for instance, by encouraging university teachers from law departments to master computer skills and earn the relevant computer class certificates.

Conclusion

The digital age has seen the digitization of many social relationships, with traditional social governance facing numerous tasks. In the context of digital economy, e-government and a number of strategic *digital plus* concepts, the combination of digital technologies and law becomes ever important, with future governments to invariably become e-governments. The efforts to build e-government are inseparable from improving digital infrastructure and promoting digital economy while the development of digital infrastructure and digital economy is inseparable from the efforts to digitize justice, with the development of digital law to be supported by a training model to produce legal specialists with the knowledge of digital technologies. Large country with enormous population, China differs from many Western countries, with the support and opposition to reform always existing in the process of digitization of justice. In this context, no achievement can be made without the Communist Party and Government of China developing a number of useful policies although these policies only serve to inform and guide public officials and enterprises in their efforts. With this guidance making more than one billion people in China work in the right direction, the collective force of such number of people should not be underestimated. As Xi Jinping, General Secretary of the Communist Party of China, would often say, “our core advantage is that China’s socialist system is capable of concentrating our efforts to achieve great things. This is an important and wonderful weapon to guarantee our success”.



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