# Challenges to Online Criminal Litigation in the Context of Smart Justice and Responses

— Focusing on the Protection of the Right to Defense

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**Abstract:** Online criminal litigation transcends the constraints of physical time and space and changes the logic and path of trial hearings for some criminal cases with the help of technology. However, the leapfrog shift from the "physical field" to the "virtual field" has brought great challenges to the effective exercise of the defendant's right to defense. Online criminal justice further highlights the imbalance in the relationship between prosecution and defense in the context of smart justice, and proposes a new topic for protecting the human rights of the prosecuted. The introduction of online criminal litigation in judicial practice is intended to achieve justice in a faster and more convenient way. However, the dissipation of the ritualized remote hearings tends to undermine the effectiveness of the defense and impair the defense's ability to cross-examine evidence, while the technically advantageous public authorities can aggravate the barrier to the defense's meeting and reading the case file. The root cause is that technological power instrumentalism overemphasizes pragmatism and the pursuit of truth under the position of authority, thus diluting humanistic care for the subject of litigation. In order to resolve the problem with the quality and effectiveness of the right to defense in remote hearings, it is necessary to transform online criminal litigation from a "practical technical tool" to a "convenient auxiliary method," and appropriately weigh the limits of pursuing truth against human rights protection in special scenarios. Meanwhile, it is also feasible to provide technical care for

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the defense and strengthen its ability to cross-examine evidence. Moreover, a covert communication platform should be furnished for the defender's online meeting to actively strengthen the protection of the defendant's right to defense.

**Keywords:** online criminal litigation ♦ smart justice ♦ right to defense ♦ remote hearings ♦ human rights

With the rise of the information technology revolution, individual behavioral patterns and lifestyles have increasingly become digitized. Humanity has thus entered the digital age and smart society. Consequently, while the national system and capacity for governance in modern society present the governance logic unique to the digital age, distinctly different from that of traditional societies. The report to the 20th National Congress of the Communist Party of China (CPC) highlights the need to "improve the primary-level social governance platforms featuring grid-based management, meticulous services. and IT support." This essentially responds to the inevitable demand in the digital age to achieve smart governance through technology. In practice, social conflicts and disputes encountered in current primary-level governance gradually present characteristics such as diversified subjects, varied types, and complex interests. This necessitates corresponding supporting dispute resolution mechanisms to address these issues.<sup>2</sup> Traditional dispute resolution methods can no longer meet the demands of the digital age. To overcome their limitations, such dispute resolution methods have gradually transitioned toward online dispute resolution mechanisms.<sup>3</sup> Online dispute resolution mechanisms represent a smart governance activity that uses technology to overcome the temporal and spatial constraints of traditional dispute resolution methods and bring together the subjects, the dispute case, and neutral parties into the same virtual space to resolve the dispute. Currently, in the face of numerous disputes among individuals in the digital age, although there are diverse dispute resolution mechanisms for governance, the fundamental role of the judiciary as the final safeguard of social fairness and justice has remained unchanged. Will the technological empowerment brought about by smart justice strengthen the ability of judicial organs to fight crime and ensure security control? When

<sup>&</sup>lt;sup>1</sup> Xi Jinping, Hold High the Great Banner of Socialism with Chinese Characteristics and Strive in Unity to Build a Modern Socialist Country in All Respects — Report to the 20<sup>th</sup> National Congress of the Communist Party of China, October 25, 2022, https://www.gov.cn/xinwen/2022-10/25/content\_5721685. htm.

<sup>&</sup>lt;sup>2</sup> Hu Xiaoxia, "The Realistic Dilemma and Future Solutions of Online Dispute Resolution System in China," *Legal Forum* 3 (2017): 97.

<sup>&</sup>lt;sup>3</sup> The online dispute resolution mechanism, which originated in the 1990s, is a mechanism that combines multiple dispute resolution methods by using new technologies such as internet information and communication, specifically including online negotiation, online mediation, online arbitration, online litigation, etc. See Zheng Weiwei, "Online Dispute Resolution Mechanism Making Fairness and Justice within Reach," *Guangming Daily*, July 1, 2023, 5.

"conflicts" are transferred to the criminal field, can technology always assist in resolving these conflicts, or are there potential risks? For criminal cases, the resolution methods are not as diverse as those for civil cases. Criminal cases are either resolved through State prosecution or victim-initiated private prosecution. In view of this, online criminal litigation exemplifies the high integration of digital technology and dispute resolution methods in the criminal field.

Online criminal litigation can be understood in broad and narrow senses. Namely, it can be divided into two forms: "whole-process online criminal litigation" and "phased online criminal litigation." "Whole-process online criminal litigation" means that the whole process of criminal litigation, including investigation, prosecution, trial, and other links, can be done online by relying on internet video and audio transmission technology; while "phased online criminal litigation" refers to that a certain link or aspect of criminal litigation is done through electronic means.<sup>4</sup> Remote criminal trials are the most typical example. Remote criminal trials here refer to judicial personnel and litigation participants engaging in court proceedings within a specific cyberspace by virtue of network image transmission and audio output, thereby achieving online trials.<sup>5</sup> Due to the "flow line work" structure, criminal litigation involves a number of links. Detailing the online processing of each link may obscure the key issues of criminal litigation in the digital age. Therefore, this paper adopts the definition of online criminal litigation in a narrow sense. centering its discussion around the specific context of "remote hearing of criminal cases." From the perspective of traditional justice, the remote hearing of criminal cases seems to form a visual and intuitive impact that deviates from the general cognition of traditional criminal case trials and is inconsistent with the public's inherent impression of the State's prosecution of crimes. "Emerging technological factors" in remote hearings are embedded into traditional criminal trials, making the current criminal trial shift from a physical field of the real "court" to a virtual space. However, the trend of the digital age will inevitably drive forward this form of development. Therefore, based on the existing forms of online criminal litigation, the elimination of relevant obstacles is not only the premise and basis of protecting the human rights of the defendant in criminal litigation, but also a necessary requirement for achieving procedural justice in the context of smart justice.

#### I. Presentation of Questions

On the one hand, introducing online litigation in criminal cases can save time and costs, and enhance litigation efficiency. Dealing with some easily adjudicated criminal cases online can achieve an efficient separation of complex

<sup>&</sup>lt;sup>4</sup> Li Shenggao, "A Research on the Online Criminal Litigation Rules under Technical Procedural Justification," *Social Science Front* 7 (2023): 213-214.

<sup>&</sup>lt;sup>5</sup> Chen Weidong and Cui Yongcun, "On the Practices and Theories of Remote Criminal Trial," *Peking University Law Journal* 6 (2021): 1485.

cases from simple ones. On the other hand, in practice, pilot reforms of online litigation are progressing smoothly, with users generally reporting positive experiences. The litigation experience of online criminal cases aligns with the evolving trends of litigation models in the digital age.<sup>6</sup> In recent years, the extensive application of smart justice, the successive establishment of internet courts in cities such as Hangzhou, Beijing, and Guangzhou, and the urgent need for judicial trials in virtual space have all accumulated momentum and laid the groundwork for the development of online criminal litigation. To adapt to the digital transformation of trial methods, the Supreme People's Court announced the Online Litigation Rules of the People's Courts in 2021, further clarifying the general principles and specific procedural guidelines for online litigation. However, a closer examination of the Rules reveals that most of the provisions therein are related to civil litigation, with fewer provisions addressing criminal proceedings. Besides, they tend to be overly abstract and general. Article 3 (2) of the Online Litigation Rules of the People's Courts restricts the scope of criminal cases eligible for remote trials, and Article 37 specifies the specific forms of online appearance for participants in criminal proceedings. 8 Compared to the comprehensive regulations governing online civil litigation, the textual basis for online criminal litigation appears less systematic, making it difficult to address numerous issues arising in the practice of online criminal litigation. This is neither because of insufficient emphasis on online criminal litigation nor the difficulty of technological innovation in meeting the needs of criminal litigation forms. Rather, it is because of much more experience in the pilot reform of online civil litigation activities and relatively fewer obstacles encountered in practice. In addition, criminal proceedings are more concerned with the protection of human life, freedom, and other fundamental rights, while the value of ensuring individual case fairness often takes precedence over the efficiency brought by technological progress. Due to these factors, the remote hearing in online criminal litigation has not yet completely removed the "online" essence

<sup>&</sup>lt;sup>6</sup> Zuo Weimin, "Towards Digital Procedural Law: A New Trend?," Science of Law 3 (2023): 55.

<sup>&</sup>lt;sup>7</sup> There are only two articles in the *Online Litigation Rules of the People's Courts* that directly address criminal proceedings, namely, Article 3 (2) and Article 37.

<sup>&</sup>lt;sup>8</sup> Article 3 (2): People's courts may apply online litigation to the following cases after comprehensively considering the circumstances of the cases, the wishes of the parties, technical conditions, and other factors: Cases to which the fast-track sentencing procedures apply, commutation and parole cases, and criminal cases that are not suitable for offline trial for other special reasons; Article 37: For a criminal case stipulated in Article 3 (2), the People's Courts may, with the consent of the prosecutor, the parties, and the defender and based on the circumstance of the case, question the defendant, conduct a court trial and pronounce the sentence online. Where a case is tried online, it shall be handled in the following manners respectively:

<sup>(1)</sup> a defendant or criminal who is held in custody may appear in an online court while he/she is in a detention center, a prison or other places of detention;

<sup>(2)</sup> a defendant or criminal who is not held in custody and is indeed unable to appear in person in court because of special reasons may appear in online court at a place designated by the People's Courts; and (3) witnesses and expert witnesses shall generally appear in person in court except as otherwise provided by laws and judicial interpretations.

of traditional criminal court hearings. Often, it merely changes the formal court hearing setting, and it is difficult to make major innovations to achieve space-time subversion such as "asynchronous trial" in online civil litigation. It is difficult to get effective responses to specific problems in judicial practice under the condition of limited regulations and an institutional shortage of remote hearings. As a result, the context setting of remote hearings in the field of criminal litigation is far more controversial and questioned than that of online civil litigation.

Looking back over the development of criminal litigation, one can observe that a significant underlying theme is the balance of power between prosecution and defense. In a general sense, defense refers to the activity of the prosecuted to present arguments when facing criminal prosecution, so as to protect his legitimate rights and interests and overturn or weaken the charges of the prosecution. In traditional litigation activities, the effective exercise of the defendant's right to defense is a crucial manifestation of procedural justice. It is a minimum requirement of judicial justice to ensure that every prosecuted individual can receive effective defense when his interests are threatened, thereby striving for a better litigation result. The history of criminal litigation is a history of expanding the right to defense. 10 As human civilization continues to advance, the right to defense has gradually gained prominence in criminal justice activities, highlighting the protection of fundamental rights for the prosecuted. In ancient China, judicial officials often acted as the prosecution and the judge, and the prosecuted had almost no right to defend. With the development of society, the rights of the prosecuted began to receive increasing attention. They can now safeguard their legitimate rights and interests by means of self-defense, entrusted defense, and legal aid defense. As mentioned above, the current society has entered a digital age, and in the context of smart justice, criminal cases have gradually shifted to the mode of "cloud" trials. For remote hearings, the mainstream view in the academic field can be summarized as the "theory of functional equivalence." Namely, to achieve functional equivalence between online and offline litigation from the two dimensions of procedural construction and assessment requires that the procedural construction of online litigation be consistent with the procedural intent of offline litigation, and the specific

<sup>&</sup>lt;sup>9</sup> The links of trials for internet-related cases are distributed on the online litigation platform of the internet courts. Judges, plaintiffs, defendants, and other participants log into the platform within the specified deadline at their convenience to complete the hearing of proceedings in an asynchronous and non-face-to-face manner. See Xiao Jianguo and Ding Jinyu, "On the Construction of China's Online 'Stuttgart Model' — A Study on the Internet Court's Asynchronous Trial Model," *Journal of Law Application* 15 (2020): 97.

<sup>&</sup>lt;sup>10</sup> Morikazu Taguchi, *Criminal Procedure Law*, translated by Liu Di, et. al. (Beijing: Law Press • China, 2000), 89.

outcomes presented by both shall not differ significantly.<sup>11</sup> Therefore, the effective exercise of the defendant's right to defense is equally important in online criminal litigation. Given that the exercise of the right to defense is not limited to the process of remote hearings, but spans multiple links of criminal litigation, this paper will focus on the protection of the right to defense in remote hearings, and briefly clarify the process of online defense before the remote hearing. Has the right to defense faced new challenges in the process of online criminal litigation? What voices are there in judicial practice regarding the effective exercise of the defendant's right to defense in remote hearings? To answer the above questions, let's first examine relevant cases to understand the specific attitude of defendants towards the effectiveness of defense in virtual settings in online criminal litigation, and consider how to cope with this challenge.

In practice, the defendant does not completely hold a positive attitude towards online criminal litigation. In some cases, the defendant may file an appeal due to the use of remote hearings by the court. For example, in the case of "Wang Hui and Yan Minglian's Fund-raising Fraud," both individuals were convicted in the trial of the first instance of crimes including fund-raising fraud and illegal absorption of public savings, resulting in varying terms of imprisonment and different amounts of fines. However, one defendants' defense counsel, in their appeal, argued not only on the grounds of the absence of "intent to unlawfully possess" as a fact constituting the defense but also stressed that the remote hearing method used in the first instance did not adequately protect the defense counsel's right to defense. In this case, the defense counsel argued that the use of online court hearings constituted grounds for the breach of procedural law by the court of first instance. 12 In addition to the general claim that the right to defense was not substantively safeguarded, there were also arguments that remote court hearings failed to achieve the expected objectives of effective defense on the grounds of diminished litigation rights. For example, in the case where the Huangyan District People's Procuratorate, Taizhou City, Zhejiang Province, accused the defendant of illegally making or selling illegally made marks of another's registered trademark, the court of first instance confirmed that the criminal conduct was established. The defendant and the defense counsel also appealed on grounds of breach of procedural law. In the specific reasons for appeal, they argued that the remote hearing mode of the original trial essentially deprived the appellant of the right to confront other defendants in the

<sup>&</sup>lt;sup>11</sup> Zhang Xingmei, "The Conceptual Basis and Application Path of the Construction of Electronic Litigation System," *Tribuneof Political Science and Law* 5 (2019): 122.

<sup>&</sup>lt;sup>12</sup> Criminal Judgment No. 891 (2020), Final, Criminal, 01, Henan of Zhengzhou Intermediate People's Court. Henan.

same case in court, among other litigation rights.<sup>13</sup> This also indicates that the defendant believes that the online trial does not allow him to fully defend himself. Apparently, although online criminal litigation overcomes temporal and spatial constraints to some extent, and improves procedural efficiency, the practical application has caused concerns among some defendants. That is, it may face the realistic problem of weakening the defendant's right to defense.

From the above cases, it is evident that in online criminal litigation, there may be an impairment of the defendant's right to defense. This includes not only the loss of the right to "self-defense," but also obstacles hindering the function of "defense by the defense counsel." Online criminal litigation faces the dual risks of impairing the effective defense of the defendant and the defense counsel. The primary objective of criminal litigation is to maintain the stability of legal order, protect human rights and the fundamental rights of all citizens, and ensure the uninterrupted progress of the construction cause.<sup>14</sup> In this process, defendants are inherently more vulnerable compared to the prosecuting authority in criminal litigation, making their fundamental rights more susceptible to infringement. Throughout the development of criminal litigation, it is evident that legislation continually refines measures to protect the rights of defendants. This reflects the fulfillment of the fundamental requirement of procedural justice. With the advent of the digital age, online litigation represents a significant integration of information technology into the judicial process in the context of smart justice. However, to a certain extent, it has led to a power imbalance between the defendant and the public authority and exacerbated the disadvantaged position of the defendants. 15 The challenge of inadequate protection of the defendant's right to defense has become a significant obstacle in current judicial practice. This also compels us to urgently address the relationship between technological development and traditional procedural justice. The current Online Litigation Rules of the People's Courts only provide scattered and fragmented provisions for online criminal litigation, and traditional criminal procedural rules have not yet covered matters related to remote court hearings. This has resulted in a lack of clear normative guidelines for safeguarding the defendant's right to defense in online criminal litigation. The continuous development of online criminal litigation in the digital age has posed higher demands for ensuring effective defense for defendants. Because of the overarching and principled norms, there is a lack of detailed and comprehensive operation instructions in judicial practice, thereby causing deviations from the original intention of the legislation. So, in what ways do online criminal litigation hinder the exercise of the right to defense,

<sup>&</sup>lt;sup>13</sup> Criminal Judgment No. 151(2018), Final, Criminal, 10, Zhejiang of Taizhou Intermediate People's Court, Zhejiang.

<sup>&</sup>lt;sup>14</sup> Chen Ruihua, Criminal Procedure Law (Beijing: Peking University Press, 2021), 30.

<sup>&</sup>lt;sup>15</sup> Wu Siyuan, "The Interaction Between Digital Technology and Litigation Rules: From the Perspective of Online Criminal Litigation in China," *Political Science and Law* 5 (2023): 40.

and what measures can be taken to address this challenge? Such concerns represent practical problems faced in the development of online criminal litigation, reflecting that the core rules for protecting the right to defense in remote trials are still incomplete and require theoretical exploration. In fact, the fundamental solution to this problem is to figure out how the pragmatic stance taken by the state on criminal procedures based on the value of technological tools aligns with the value objective of procedural justice, and what is the reasonable boundary between the discovery of truth and the protection of human rights.

In the context of smart justice, regarding the theme of online criminal litigation, the academic community is more inclined to explore procedural justice, 16 its multiple functions, and functional limits, 17 or engage in general discussions about issues in online criminal litigation. <sup>18</sup> There are relatively few studies that focus on a specific issue. In particular, regarding the effective exercise of the right to defense by the defendant and the defense counsel in the trial in online criminal litigation, there is no theoretical research, and there is a lack of systematic interpretation of obstacles to the exercise of the right to defense in remote hearings and its solution, thus it is difficult to provide theoretical support for the protection of the rights of the defendant in the new trial mode in the digital age. Therefore, this paper intends to explore the protection of the right to defense in online criminal litigation. It aims to provide solutions to address the practical challenges of remote hearings and promote the smooth operation of the online mode. First, this paper needs to delineate the specific right to defense and explain in turn how the application of online criminal litigation conflicts with the protection of rights. Next, it reflects on the underlying logic for the impairment in the right to defense in the digital age of technological advancement. Last, through a re-examination of the defendant's right to defense in the context of smart justice, it considers solutions to address challenges and presents hopes and visions for the future development of online criminal litigation.

## II. Legal Challenge: Conflicts between Online Criminal Litigation and Protection of the Right to Defense

In traditional criminal litigation, protecting the defendant's right to defense is the core requirement of procedural justice. It can show that the state respects

<sup>&</sup>lt;sup>16</sup> Gao Yifei and Wang Jiaxing, "On the Procedure Justification of Online Trial of Criminal Cases," *Present Day Law Science* 1 (2023): 25-34; See Li Shenggao, "A Research on the Online Criminal Litigation Rules under Technical Procedural Justification," *Social Science Front* 7 (2023): 210-225, etc.

<sup>&</sup>lt;sup>17</sup> Guo Fenglu, "On the Functional Orientation of Online Litigation," *Journal of Law Application* 5 (2023): 79-87.

<sup>&</sup>lt;sup>18</sup> Liu Hui, "Theoretical Review and Rule Limitation of China's Online Litigation in Criminal Cases," *Business and Economic Law Review* 3 (2023): 21-36; Li Yongchao, "The Construction of Rules for Online Criminal Trial Proceedings," *People's Judicature* 4 (2021): 72-75, etc.

and safeguards the fundamental human rights of its citizens, so it is obviously very important. Presently, a more widely accepted view is that in the digital age, human rights and various rights are integrated into data information elements. and the nature of rights has changed. "Digital human rights" as the "fourth-generation human rights" exactly adapt to the current practical needs for the development of the human rights concept.<sup>19</sup> This concept has been put forward to eliminate the threat of digital technology gap to human rights protection and enable information technology to safeguard the value and dignity of individuals. According to the human rights implication of "the natural rights inherent to humanity," the rights closely related to the survival and development of "digitally disadvantaged groups" should be included in the scope of human rights protection.<sup>20</sup> Since the defendant and defense counsel are inherently disadvantaged in criminal proceedings, and the technological support of online litigation often favors the public authority, the rights of the defense need to be particularly protected. Therefore, the effective exercise of the right to defense in online criminal litigation holds special significance for safeguarding the human rights of the prosecuted in the digital age.

With the gradual popularization of online criminal litigation in practice, and the lack of detailed procedural rules to protect the defendant's rights, remote hearings are influenced by changes in judicial settings and the constraints of technological capabilities and quietly affect the substantive effectiveness of the defendant's ability to defend himself or entrust lawyers to exercise the right to defense. This influence extends beyond the link where the defense presents arguments during the remote hearing. It also includes the online defense work conducted by the defendant before the remote hearing, such as online document review and virtual meetings with the defendant. In certain contexts, remote hearings in online litigation become formalistic, thereby limiting the defense counsel from fully engaging in effective online defense presentations. This obviously deviates from the pursuit of trial as the center of criminal litigation. The efficiency orientation of remote hearings may alleviate the contradiction of the unbalanced ratio of people to cases to a great extent, the essential role of defense counsels should not be ignored, nor can the lack of practical effectiveness in safeguarding the human rights of the defendant be overlooked. The protection of the right to defense conflicts with the form of online criminal litigation. Basically, it restricts the defendant's natural exercise of the right to defense by restricting the defense counsel's pre-trial access to case files, widening the information gap between the prosecution and the defense, reducing the ability to cross-examine during the hearing, and weakening the effectiveness

<sup>&</sup>lt;sup>19</sup> Ma Changshan, "The 'Fourth Generation of Human Rights' and Their Protection in the Context of Smart Society," *China Legal Science* 5 (2019): 17.

<sup>&</sup>lt;sup>20</sup> Nie Shuaijun, "The National Obligations and Pathways to Realize the Protection of Rights for 'Digitally Disadvantaged Groups'," *Journal of Human Rights Law* 4 (2023): 145.

of presenting arguments.

## A. Remote hearings raise the defense's concerns about access to case files and meeting

In Chinese criminal procedure law, defense counsels are granted the right to access, excerpt, and copy the prosecution case files, including litigation documents, records, and evidence materials, from the day the case enters the examination and prosecution stage. In the context of smart justice, the judge often uses AI tools to integrate case files, summarize case facts and focus on disputes, analyze the probative value of current evidence, and conduct a preliminary free evaluation of evidence through inner conviction based on their own experience.<sup>21</sup> It is evident that the use of "AI technology" in judicial judgment has become a new consideration in the defense process in the digital age, yet it has not been incorporated into the traditional scope of the right of access to case files. As defense counsels lack knowledge of the AI-assisted algorithms of the smart court, they can hardly question the fairness of AI. This actually limits the scope of access to case files for defense counsels. In addition, defense counsels' online pre-trial access to case files mainly aims to find evidence that is favorable to the defendant. For example, for cases involving commutation and parole, defense counsels cannot make a substantive defense unless they have sufficient information in favor of the defendants. The public authority can use the judicial intelligence system under its control to quickly identify incriminating information in case files related to defendants and analyze the elements of the crime. In contrast, defense counsels lack AI assistance and must manually search through vast amounts of document data online to find favorable details for defendants, which costs more.

Before trial, defense counsels may present defenses of innocence or argue the insignificance of the crime based on the specific circumstances of the case primarily according to the facts and the law, but they also take into account the defendant's true thoughts. Communication by video is not as effective as direct face-to-face contact. Defendants may be unable to fully express their concerns due to technical issues or lack of trust. Indeed, this undermines the establishment of a reasonable trust relationship between defendants and defense counsels. There are also concerns about both parties' conversations being monitored during online remote meetings. Although such monitoring is prohibited by law, these concerns undoubtedly heighten the apprehension for defense counsels regarding private communication with defendants.

### B. Virtual hearings reduce the defense's ability to cross-examine

During the traditional cross-examination in court, both the prosecution and

<sup>&</sup>lt;sup>21</sup> Gao Tong, "Conflicts and Coordination between Online Litigation and Criminal Procedure: A Perspective from the Criminal Trial Stage," *Nankai Journal (Philosophy, Literature and Social Science Edition)* 1 (2022): 29.

defense present their opinions regarding the authenticity, relevance, and legality of the evidence. In a physical courtroom setting, both parties can distinguish and verify tangible evidence such as physical objects and documents by observing and touching them on-site. This allows them to determine whether the evidence is original and to identify any potential malicious distortion or alteration. However, in the case of remote hearings, both the prosecution and defense will upload photos or scanned copies of physical evidence to the system platform beforehand. It is essentially equivalent to digitizing tangible objects. It is well known that original evidence holds greater probative value compared to copies. According to online litigation requirements, this essentially means manually transforming original evidence, which should have remained as such, into a form akin to a copy. Even though both sides understand that it is a necessary operation for remote hearings, the colors and lighting of the original patterns may show subtle differences when viewed on a screen after technical processes such as copying, photographing, scanning, and uploading to the system. To some extent, it has become challenging to fully restore the true appearance of the evidence. If it is difficult to discern the true appearance of physical evidence during the cross-examination of the court hearing, it is challenging to ensure the accuracy of the defendant's or defense counsel's opinions on the evidence. This, in turn, affects the precise determination of case facts.

In terms of obtaining testimonial evidence by questioning witnesses, although witnesses are obliged by law to testify in court, actually few of them do that. Typically, the testimony is presented in court through the reading of witness statements. So, will remote hearings break through the dilemma of witnesses being unwilling to testify in court? Unfortunately, it may not necessarily improve the situation. In judicial practice, corresponding risk mitigation measures are taken for online testimony. For instance, the identity of a witness can be concealed using online technological devices, the figure and appearance of the witness can be concealed using mosaic technology, and when necessary, a voice changer may be used to alter the voice of the witness.<sup>22</sup> However, even so, remote hearings still pose additional security risks to witnesses, particularly concerning the potential leakage of personal information. When witnesses log on to the online system, according to the regulations, their identity should be verified. Therefore, witnesses need to input the information from their ID cards and be subject to facial recognition. Their personal information, including biometric data, will be collected by the system during the verification procedure for access. After the system collects and stores such information, it is not solely controlled by the public authority but is stored in computer databases. It may be managed by third-party technical operation

<sup>&</sup>lt;sup>22</sup> Xie Dengke, "The Field Transformation and System Development of Witness Testifying in Court in Online Litigation," *Law and Social Development* 1 (2023): 156.

platforms. Inadvertently, this could lead to the compromise of witnesses' information. Therefore, due to concerns about the potential risks of remote hearings, witnesses may choose not to testify. It will hinder the discovery of the truth in the case and indirectly impair the defendant's right to cross-examine witnesses in court.

Additionally, it should be emphasized that remote hearings in a virtual space tend to make court hearings virtual, contradicting the trial-centered principle. The full exercise of the right to defense should be based on substantive court hearings. If remote hearings are merely a formalistic process, defendants have no opportunity to present arguments or a defense in such hearings. For the trial-centered litigation system reform, regardless of the technological approach taken, it is crucial to ensure the protection of the right to defense, particularly by strengthening the right to cross-examination during hearings.<sup>23</sup> Even if the application scope of remote hearings is strictly limited, it does not mean that the court hearings in restricted cases are treated as mere formalities or disregarded. It is important to note that according to the requirements of the *Online Litigation* Rules of the People's Courts if there are substantive disputes between the prosecution and the defense regarding a remote hearing case, the entire case must be handled offline. To ease the pressure in case handling and avoid the shift from online hearings to offline handling, judges usually make more preparations before remote hearings. This to some extent exacerbates the judge's substantive reliance on case files before the trial. To improve the efficiency of remote hearings, the prosecution typically uploads all case files to the storage space of the smart court through a cloud-based system. Due to the non-ritualized setting of remote hearings, it is challenging to conduct comprehensive investigations and verifications to the same extent as in traditional courts. Judges often accelerate the pace of online court hearings. The specific details of cases are reviewed by repeatedly reading case files before or after the hearings. In essence, this approach makes it difficult to truly implement the reform of substantive court hearings. It weakens the effectiveness of cross-examination in court in uncovering the truth and contradicts the keynote of ensuring effective defense for the defendant.

## C. Changes in judicial settings weaken the quality and effectiveness of defense arguments

With information technology as a medium, criminal remote hearings use various hardware and software systems to shift the entire court hearing onto a screen, replacing the traditional physical court with an online trial. This represents a shift in judicial fields. Although the screen can hold several square split screens simultaneously and show all parties participating in the trial at the

<sup>&</sup>lt;sup>23</sup> Wei Xiaona, "The Trial-centralism Reform in Technism Approach: Mirror and Expectation," *Studies in Law and Business* 4 (2022): 46.

same time, it is difficult to make the inherent pattern of the prosecution, the defense, and the judge in the virtual field exactly equivalent to that in a physical courtroom. As a result, the firsthand experience of justice is significantly diminished, and it is hard to achieve the immersive experience that criminal litigation should provide for litigant participants. The courtroom is the most critical gateway to upholding fairness and justice. This specific setting is a symbol of solemnity, representing the rigorous and meticulous style of judicial adjudication in China. Due to the need to present the images of multiple participants at the same time, it is challenging for online litigation to completely restore the offline court scene. For example, in physical courtrooms, the national emblem situated above and behind the judge is sometimes not fully visible in online split-screen setups. This diminishes the solemnity of criminal proceedings, as neither the judge nor the prosecution and defense can tangibly experience the gravitas and solemnity of justice. For example, the national emblem in the physical court, which is located behind the judge, sometimes cannot be fully displayed on the split screen. This actually undermines the solemnity of criminal litigation, as both the judge and the prosecution and defense sides are unable to truly feel the gravity and solemnity of justice. The removal of the judicial ceremony may easily make the defense feel that their rights have not been adequately respected and question the public authority's contempt for the subject status and basic rights of the defendant. This may cause the defendant to lack trust in the judicial organ, thereby impacting the effectiveness of the defense. At the same time, criminal remote hearings undermine the principle of directness and verbalism, adversely affecting the ability of the prosecuted to defend themselves. The principle of directness and verbalism generally includes the content of two aspects: First, all parties to the litigation should be present and personally attend the trial, and the judge must have direct access to and review the evidence; Second, litigation participants should present their arguments, accusations and defense, and evidence in the form of oral statements.<sup>24</sup> Due to the use of remote technology, remote criminal hearings unavoidably lack physical presence. Additionally, there may be deviations in the perception of the authenticity of investigation findings. At least, compared to traditional litigation, the judge's acceptance of defense arguments may vary emotionally. When hearing cases, they do not rely solely on the statements of the parties during the trial. Like traditional Chinese medicine practitioners, they sometimes employ a combination of methods to "inspect, listen, smell, inquire, and palpate." As early as the Western Zhou Dynasty, the principle of "Five Hearings" was used in judicial judgment. That is, analyze

<sup>&</sup>lt;sup>24</sup> Chen Ruihua, *Criminal Evidence Law* (Beijing: Peking University Press, 4<sup>th</sup> edition, 2021), 66.

whether the parties' confession is true or not by observing their expressions.<sup>25</sup> Once remote trials are implemented, facial expressions and intuitive perceptions based on the five senses will inevitably differ from the judicial cognition formed in the physical environment. In addition, it is not easy for the defense to capture the demeanor changes of the judge and the facial expressions and actions of the prosecution. Accordingly, remote hearings do not provide a conducive environment for the defendant to express their emotions, making it difficult for the defense counsel to empathize. The defense counsel also finds it challenging to detect the defendant's demeanor during online proceedings, which inevitably causes confusion in selecting defense strategies and affects the effectiveness of the defense.

Furthermore, if the defendant is detained in a detention center and the trial is conducted via video link from the detention center, it will be difficult to ensure effective communication between the defense counsel and the defendant regarding defense strategies during the trial. During remote hearings, the defendant and the defense counsel are on two separate screens. There is no reasonable private space available for any online consultation between the two parties. In terms of the scope of cases applicable to remote hearings in online criminal litigation, once a guilty plea or punishment acceptance is involved, if the prosecution proposes an adverse change to the sentencing proposal previously made in court, it will inevitably undermine the defendant's reasonable expectation and anticipated interests in relation to the public authority. If the defendant is not voluntarily pleading guilty and wishes to withdraw his previous statement, or if the defendant has objections to the charges and penalties pointed out by the procuratorial organ in the sentencing proposal, there will be a need for substantive assistance from the defense counsel. However, for such circumstances, online litigation regulations do not provide defense counsels and defendants with a channel for confidential communication during remote hearings. This poses challenges to effective defense in specific circumstances.26

## III. Reflection on the Root Cause: Deep Logic of Diminishing the Right to Defense in Online Criminal Litigation

After clarifying the circumstances where online criminal litigation may hinder the right to defense of the prosecuted, now it is necessary to delve deeper into the underlying reasons for the conflict between the right to defense and online criminal litigation. To what extent does technological power influence the exercise of various litigation rights in the construction of smart justice? What

<sup>&</sup>lt;sup>25</sup> The so-called "Five Hearings" refer to *Ci Ting* (Words Hearing), *Se Ting* (Expression Hearing), *Qi Ting* (Breath Hearing), *Er Ting* (Ear Hearing) and *MuTing* (Eye Hearing). See Zhu Yong, *Chinese Legal History* (Beijing: Law Press • China, 3<sup>rd</sup> edition, 2014), 28.

<sup>&</sup>lt;sup>26</sup> Fu Jingyu, "The Risks of Effective Defense in Online Criminal Litigation and Its Coping Strategies," Seek Truth from Facts 1 (2023): 86.

substantial impact does it exert on the anticipated effect of defense?

### A. Impact of pragmatic stance on the value orientation of procedural justice

Undoubtedly, in judicial practice, online criminal litigation has also played an effective role in improving efficiency and easing the pressure on judicial authorities to handle cases. Additionally, it has also reduced the time costs associated with travel for defense counsels and other litigation participants. However, in practice, the application scope of online criminal litigation under the Online Litigation Rules of the People's Courts has never been significantly expanded, nor have substantial reform attempts been made to the operational rules governing this form of litigation. To some extent, it continues to be seen as a shift of the trial of criminal cases to a "remote" setting. The original intention of using such technological means is to view online technology as a medium or tool to facilitate the trial of cases, thereby improving the convenience and speed of handling the backlog of cases. This first broad approach to court technology is a form of process improvement. It involves grafting new technology onto old working practices, while it fundamentally maintains the traditional mode of the original criminal litigation.<sup>27</sup> The extreme praise for the value of technological tools reflects the current pragmatic approach in judicial practice towards criminal proceedings.<sup>28</sup> From a pragmatic standpoint, as long as the case is settled, the case facts in the criminal litigation are clarified, the defendant's criminal liability is confirmed, social conflicts are swiftly resolved, and the mission of litigation is considered fulfilled. Judges can then free themselves from the professional constraints of hearing cases. Since technology is viewed as a tool, the online format of remote hearings is merely for the convenience of case trials. Looking back on the process of online criminal litigation from its inception to widespread adoption in practice, its convenience and speed have been fully recognized, much like the temporal and spatial transcending characteristics of online meetings. Criminal proceedings inherently possess procedural inertia. Leveraging this inertia, the pragmatic tendency will continue to play an important part in the selection of judicial procedures at present and even in the future. The pragmatic stance itself is opposed to the value orientation of procedural justice to some extent. With the current digital technology, it is challenging to fully reconcile the two. To ensure procedural fairness and protect the effective exercise of the defendant's right to defense, it is essential to take more support measures in the process of online litigation. The fundamental goal of online litigation is to simplify complex and cumbersome procedural details and achieve swift court hearings. The pragmatic stance emphasizes

<sup>&</sup>lt;sup>27</sup> Richard Susskind, *Online Courts and the Future of Justice*, translated by He Guangyue (Beijing: Peking University Press, 2021), 33.

<sup>&</sup>lt;sup>28</sup> Wang Lusheng, "Practical Observation and Prospects of Online Criminal Procedure System," *Journal of Southwest Minzu University (Humanities and Social Science)* 12 (2021): 79.

result-oriented thinking and focuses on the speed of judicial decisions, while procedural justice prefers process-oriented thinking and values the appearance of justice and procedural fairness in the trial process. Therefore, the insufficient protection of the defendant's effective defense is just a manifestation of challenges in the application of online litigation. The core issue behind it lies in the tension between the pragmatic stance inherent in the instrumental value of technology and the value basis of procedural justice.

### B. Diminishing subjectivity of litigation participants in the context of technological advancement

It is a key feature of the modern rule of law to highlight the participation of all parties in legal proceedings, so as to ensure that justice is perceived visibly by all litigation participants. Moreover, we should not regard the operation of judicial proceedings as a mechanical application of rules. The development of online criminal litigation has aggravated the rigid judicial mechanism<sup>29</sup> to some extent, making various procedures in the litigation process a formalized application that lacks necessary humanistic care. The online mode of judicial trials, coupled with AI assistance for procedural operation, can indeed lead to efficient and expedient judicial rulings. However, relying on technical manipulation of procedures cannot measure the emotional resonance of litigation participants, thus it is difficult to understand the emotions and psychological states of the parties. Compared to traditional litigation modes. there might be a weakening of humanistic care.<sup>30</sup> In the process of using technology to assist judicial trials, it is crucial to inject new elements of empathy into the system to ensure that litigation participants as human beings cannot be replaced. It is important to note that the fundamental characteristics of individuals as the subjects of litigation cannot be replaced by technology. The use of technology is merely to offer convenience for the dominant subjects of litigation. Since online criminal litigation has prompted participants to compromise the ceremonial aspects of a physical space for the efficiency and convenience of a virtual space, it is crucial to strengthen care for the subjects of litigation, especially care for the interests and basic psychological states of defendants, within the limits allowed by practice.

Currently, the capacity and impact of judicial technology may challenge the

<sup>&</sup>lt;sup>29</sup>Judicial mechanism, also known as mechanistic judicial formalism, is characterized by judicial rigidity and lack of flexibility. Although judicial officers adhere to legal principles, they cannot exercise discretion within the permissible limits of the law based on the specific circumstances of the case. In this sense, the meanings of mechanical judicature and rigid judicature are almost the same. They both show a lack of flexibility to adapt to the case, to local conditions and to changing circumstances. They are also manifested in an overly rigid interpretation of laws, judicial interpretations, relevant normative documents, and the specific facts and evidence of individual cases, leading to a departure from substantive justice in handling cases. See Zhang Jianwei, "On the Phenomenon of Judicial Mechanism and Its Causes," *Law-based Society* 1 (2023): 71.

<sup>&</sup>lt;sup>30</sup> Ma Changshan, Law Towards a Digital Society (Beijing: Law Press • China, 1st edition, 2021), 209.

subject status of litigation participants. It possibly tames their ability to navigate established paradigms. Online criminal litigation pursues a kind of technical governance. It is a type of network-based justice realized in the "network scenario," and it represents how State power operates in the judicial process.<sup>31</sup> It should not be ignored that in some special circumstances, technology may impede the exercise of fundamental rights of the subjects of litigation under the guise of "technological neutrality." For example, in remote criminal hearings, all procedures may comply with legal norms, yet to some extent, the defense effectiveness of the prosecuted is weakened. For another example, under the guidance of smart courts, subject to the invisibility of technical operation, not all smart governance is fully visible to the public. Considering the inherent invisibility of technology and its application in judicial activities which predominantly represents power operation in national governance, it is necessary to supervise smart justice from the perspective of reasonable interaction between law and technology and prevent as much as possible the result not conducive to the legitimate rights and interests of the subjects of litigation, especially the implicit obstruction to the effective defense of the prosecuted. Has technology really lost its stance of objective neutrality? This is definitely a question worth asking. The answer is no. In fact, it is the inherent rationality of technological neutrality that obscures the objective real effect. The diminishing subjectivity of litigation participants and the emphasis on the formal consistency brought by technology easily result in limited defense in online criminal litigation, making it difficult to truly achieve "functional equivalence." C. The State's pursuit of discovering truth in the "power-rights" pattern

Traditionally, China has long been influenced by the State-centered concept, in stark contrast to the individual-centered judicial culture in the common law system. As a result, various aspects of Chinese criminal justice bear a profound imprint on the dominance of state authority. In terms of legal procedures, one viewpoint is that procedures should be subordinate to the goal of resolving disputes, while another viewpoint holds that the law should obey and serve the implementation of State policy.<sup>32</sup> Although the judicial procedural framework established in the Chinese criminal procedural law incorporates positive elements of the party-centered principle in the common law system, it still retains a strong characteristic of the power-centered principle, consistent with the investigatory model advocated by the latter viewpoint. The power-centered structure is typically accompanied by substantive realism. They both require judges to actively lead the case proceedings, actively ascertain the

<sup>&</sup>lt;sup>31</sup> Yang Jiwen, "The Construction of Online Litigation Scene Theory," *Law and Social Development* 3 (2023): 180 -183.

<sup>&</sup>lt;sup>32</sup> Mirjan R. Damaska, *The Faces of Justice and State Authority: A Comparative Approach to the Legal Process*, translated by Zheng Ge (Beijing: China University of Political Science and Law Press, 1<sup>st</sup> edition, 2004), 131.

truth of the case, and emphasize that the State should prosecute crimes based on factual accuracy and fairness. In the "power-rights" pattern, sometimes judicial power operation may fundamentally neglect the need to safeguard the rights of the parties involved or fail to incorporate considerations of the basic rights of the parties into the judicial power operation process.<sup>33</sup> In criminal proceedings, the public authority places significant emphasis on the goals of discovering the truth and establishing the facts. Online criminal litigation uses the inherent advantage of technology and often focuses on quickly uncovering the truth during the trial process. The online mode must ensure procedural efficiency while emphasizing the discovery of truth. Also, it must take specific and detailed procedures into account. Some people believe that we should also objectively assess the impact of remote hearings on the discovery of truth, and not exaggerate the actual effect of courtroom interaction on conviction and sentencing.<sup>34</sup> The State will not weaken the steadfast pursuit of objective truth in the power-centered principle merely because of the introduction of remote screens in the court trial process. Since many value objectives need to be taken into account in online trials, and discovering the truth and punishing crimes are the top priorities of the State prosecution doctrine, the State will certainly utilize technological advantages and instrumental rationality to reinforce the power-centered principle. In contrast, the protection of human rights and fundamental rights of the subjects of litigation is likely to be appropriately coordinated and compromised amidst various considerations. The right to defense, as a part of fundamental rights, is inevitably limited in its exercise during remote hearings. To address the balancing of multiple interests in online criminal litigation, it is essential to properly coordinate the tension between "power" and "rights." This will facilitate the construction of a fair and rational network discourse system.

## IV. Countermeasures: Paths to Protect the Right to Defense in Online Criminal Litigation

To realize effective defense of the prosecuted in online criminal litigation, we should not only start from the lack and negligence of legal norms, but should start from the internal logic, grasp the spiritual essence of the conflict between technology empowerment and rights protection, and then put forward specific solutions.

### A. Re-examining the functional role of online criminal litigation

As a new attempt to digitize trial forms, online criminal litigation, primarily conducted through remote hearings, has posed challenges to the effective defense of the prosecuted in practice. It struggles to match the effectiveness of

<sup>&</sup>lt;sup>33</sup> Chu Fumin, "Empirical Studies on the Operation of Judicial Power and the Protection of Parties' Litigation Rights," *Evidence Science* 1 (2016): 46.

<sup>&</sup>lt;sup>34</sup> Cui Yongcun, "On the Institutional Regulation of Remote Criminal Trial," *Chinese Journal of Law* 2 (2023): 119.

the original form of litigation and its functional role is not very clear. Only by reflecting on the nature and function of online criminal litigation, can it be promoted to overcome challenges and become mature and rational. Frankly speaking, a fair, reasonable, and effective litigation procedure must not only satisfy the ultimate pursuit of litigation, meet the expectations of accurate conviction and sentencing in criminal cases, but also take all participants in the litigation into account, so that social conflicts can be eliminated. In view of the current form of online criminal litigation, some people believe that its functional role should be divided into three levels in a hierarchical structure: primary level, intermediate level, and high level. At the primary level, the emphasis is on optimizing the allocation of resources and improving litigation efficiency. At the intermediate level, technology is applied to balance the interests of all parties in individual cases, aiming to achieve fairness in case adjudication. As for the third level, that is, the high level, the functions of online courts are expanded to realize the modernization of justice.<sup>35</sup> Through analysis, it can be found that from the three levels, it is difficult to provide theoretical explanations for the assertion that the defendant's exercise of the right to defense was diminished during remote hearings. In my opinion, in current online criminal litigation, the State can utilize powerful technological means and use technology as a practical tool to realize active justice. Especially, judges can demonstrate their initiative and wisdom. By utilizing modern judicial technologies, including digital technology, they can efficiently resolve cases and avoid being perceived as stereotypical figures who passively preside over court hearings.<sup>36</sup> If online criminal litigation is simply positioned as a technological tool to deal with cases quickly, apparently it ignores the ultimate purpose behind the technology, and the beneficiaries of the development of science and technology. Moreover, it fails to consider the humanistic care behind technical rationality. If online criminal litigation is viewed from this functional perspective, the participation of the defense in remote access to case files, remote meetings, and even remote court hearings may be subject to technical constraints imposed by the public authority. This could significantly hinder the defendant from effectively defending against potential infringements of their rights. To fundamentally change this situation, online criminal litigation should be endowed with a new functional significance. It should be recognized that the establishment of procedures always serves the entity, that is, to realize the fundamental value of punishing crimes and protecting human rights. Similarly, the form of online litigation is just a strategy to determine guilt and resolve conflicts as quickly as possible. It is a way to eliminate physical barriers while quickly assisting in the handling of criminal

<sup>&</sup>lt;sup>35</sup> Guo Fenglu, "On the Functional Orientation of Online Litigation," *Journal of Law Application* 5 (2023): 81-84.

<sup>&</sup>lt;sup>36</sup> Hu Ming, "On the View of Active Legal Supervision in Digital Age," *China Legal Science* 1 (2023): 112.

cases. In other words, the embedding of technology essentially still serves people and the fundamental concept of criminal litigation, but it is more flexible and fast in terms of the operation mode. Only by fully understanding the essential attribute of its functional role, can we start from the existing institutional framework to refine the specific measures to protect the right to defense of the prosecuted in the context of smart justice.

## B. Value balance between the pursuit of truth and the protection of human rights in the context of smart justice

In fact, the fundamental difference between traditional criminal litigation and online remote hearings lies in that the latter is not restricted by the physical field, allowing participants to attend without being physically present. Remote trials do not possess the solemn rituals and face-to-face presence characteristic of physical courtroom settings. In this context, continuing to uphold the traditional goal of vigorously pursuing the truth seems to collide somewhat with the current new circumstances. It is worth noting that current remote criminal hearings have their specific scope of application, and the final sentencing for the defendant tends to be relatively minor. As for serious criminal cases, the special form of remote hearings is typically not allowed in practice. Based on this, for certain types of cases, the traditional goal of discovering the truth conflicts with the online form of remote hearings. If the pursuit of truth must be elevated to a very high-value level, it may to some extent infringe upon the rights and interests of the defendant, especially their human rights. In traditional criminal litigation, the pursuit of truth often implies a focus on punishing crimes, which sometimes fails to protect human rights. The pursuit of the factual truth of the case aims to serve the deterrent and preventive functions of punishment, thus preventing similar cases from occurring again in the future. The imposition of punishment on offenders is intended to deter potential groups from committing crimes. As mentioned earlier, expedited criminal procedures are primarily conducted in the form of remote hearings. This implies that these cases mainly involve minor offenses where the defendant often pleads guilty. In such cases, defense counsels play a very limited role in online hearings, even serving merely as witnesses. Furthermore, there isn't a high necessity for substantive examination. The focus should be put on ascertaining whether the defendant voluntarily pleads guilty and accepts punishment during the hearings. Therefore, in remote court hearings, what we should prioritize is whether the judge can clearly perceive the defendant's facial expressions, emotions, as well as the tone and voice in their statements through the video feed, so as to assess the voluntariness of their guilty plea and punishment acceptance.<sup>37</sup> In this scenario, remote hearings should focus on whether the technology can accurately convey

<sup>&</sup>lt;sup>37</sup> Bian Jianlin and Li Yanling, "From'Tool Value First' to 'Procedural Justice First': Development Direction of Criminal Online Trials," *Social Sciences in Yunnan* 3 (2023): 117.

the defendant's true intentions and emotions, whether it can achieve the same function as the physical court, and whether it can truly protect the rights and interests of the defendant. In the context of smart justice, the weakening effect of case fact-finding may appropriately diminish the demand for the doctrine of ex officio inquiry. However, categorizing criminal cases suitable for remote hearings in advance actually reduces the risk of obscuring the truth significantly. Although the pursuit of truth is a consistent duty requirement of the judge, the procedural protection for the human rights of the prosecuted must never be overlooked. If it is challenging to reconcile the two value pursuits in individual cases of remote hearings, the trial should be transferred to an offline physical courtroom to safeguard human rights. Only by being based on this original intention can the defendant's right to defense can be upheld, and online criminal litigation can better utilize its auxiliary efficiency in expediting the process, thus ensuring smooth operation in the digital age.

### C. Strategy choice: protection of the right to defense

Regarding the effectiveness of exercising the right to defense for the defendant in remote hearings, it is urgent to take countermeasures in judicial practice to alleviate the problem in addition to considering the change of function orientation and balancing of interests. In terms of online criminal litigation, it is crucial not only to focus on the technical operation of online trials, but also to consider the critical role of proof and cross-examination during the hearings. In the details of institutional norms, there should be a greater emphasis on protecting the rights and interests of the defendant, thus balancing the prosecution-defense relationship in online litigation.

### 1. Providing the defense with adequate technological support to bridge the digital divide

To avoid the imbalance in the prosecution-defense relationship caused by a technological monopoly, technology should enable online criminal litigation to meet practical needs for the convenience of the public. At the same time, the public authority should provide technological support to strengthen the defense's position in technology control, which is often disadvantaged. In shaping virtual courtrooms, technology should always consider the user experience of litigation participants such as the defendant, the victim, and the defense. It should not use the innate superiority of technology control to artificially create digital barriers for subjects of non-public authorities, making remote procedures cumbersome and technically challenging. Therefore, the judicial access threshold and corresponding standards for technological products should be subject to rigorous scientific verification. A neutral third-party evaluation body should be required to supervise it in a timely manner to prevent the prosecution from exploiting technological biases that could undermine the effective operation of the right to defense. To address the issue of the defense counsel's online access to case files, one possible approach is to strengthen the

prosecution's digital disclosure obligation, thus bridging the gap with the traditional scope of access to case files and ensuring that the defense has a thorough understanding of the case information. In the context of smart justice, the prosecution should be required to take the initiative to disclose evidence materials favorable to the defense in the institutional design and explain the evidence materials and evidence basis derived from AI analysis. For the algorithmic analysis of the existing materials by the defense, expert assistance can be introduced to help narrow the power disparity between the prosecution and defense. Additionally, before the defense uses the remote mode of online litigation, the judiciary should inform the defense about how to log into the online device and the specific procedures of online hearings accurately and comprehensively, including details such as the buttons to be used, how to speak or question in court, and technical operation methods for courtroom investigations or debates as needed during the hearings. Before the opening of a court session, to enhance the effectiveness of remote hearings, and improve the proficiency of the defense in technical operation, the judge's assistant may inform the defense counsel in advance about considerations for remote hearings, assist the defense in simulating the online hearings, test the network environment, and ask the defense about the specific difficulties in technical operation, to solve problems as far as possible prior to the hearings. The Online Litigation Rules of the People's Courts stipulates that courts are obliged to inform parties of specific operational methods when conducting remote hearings. However, it does not specify the consequences for violating this obligation, nor does it provide remedies for the defense. Additionally, there are no explicit punitive measures outlined for the judiciary failing to fulfill their duty to inform or neglecting it. In view of this, the rules for online criminal litigation should provide a technical bias in favor of the defense. When the public authority fails to fulfill its obligation to make technical explanations, the defense should have the right to seek procedural remedies. This would be considered a reasonable ground for appeal, and lead to invalidating online litigation proceedings that were flawed previously, while also holding accountable the relevant parties. From a technical perspective, the effectiveness of remote hearings in smart courts varies across different regions. Besides, online platforms and device performance may not be consistent. In fact, this indirectly increases the costs for the defense to adapt to various technical conditions. Therefore, in the context of smart justice, smart courts should make every effort to coordinate and establish unified technical standards for online criminal litigation and set up a unified platform for the defense's simulation of remote hearings. As long as the defense can show the identity of the defender in the criminal case, they are allowed to simulate the online hearings prior to the opening of a court session. This allows them to be familiar with the technical operation norms, to try to bridge the digital divide caused by the gap in technological capabilities between the defense and

the prosecution.

## 2. Strengthening the defense's cross-examination ability in online criminal litigation

Appropriate measures should be taken to strengthen the defense's ability to cross-examine effectively in virtual settings. Specifically, in online criminal litigation, measures should be taken to assist the defense in checking the accuracy of the special evidence that has been processed using technologies such as scanning or photography during the online review. For instance, the judiciary can provide the defense with enough time to verify the evidence materials uploaded on the platform by means of a pre-trial conference. This grants the defense the right to fully question any discrepancies arising from the technological processing of the evidence during the pre-trial conference. If the defense believes that scanned evidence is unclear, difficult to identify, or significantly different from the original material, they may raise objections at the pre-trial conference, and ask the prosecution to make a reasonable explanation. The main purpose of the pre-trial conference is to allow both the prosecution and the defense to present preliminary arguments in the form of evidence by presenting evidence related to the case. Especially in the case of remote hearings, the judge can hold a pre-trial conference before the formal trial via video conferencing to ask whether the prosecution and the defense have objections to the form of evidence uploaded on the system platform. The focus should be put on the defense's reasonable doubts about the technological processing of evidence. As for different types of contested evidence, it is necessary to adopt different handling methods. For instance, there is little difference in the presentation of audio-visual information, electronic data, etc., between online display and offline review. Unless there are specific needs, the authentication process can be streamlined. For physical evidence, it is necessary to clarify uncertainties about the authenticity through its physical form, external features, and location status. For documentary evidence, the authenticity of the original documents needs to be verified. If there are doubts about the reliability of such evidence, it may be necessary to request offline identification or ask the court to conduct an investigation based on its authority. Regarding the diminished cross-examination capabilities resulting from insufficient technical expertise on the part of the defense, the responsibility scope of the expert assistant can be expanded to assist the defense in accurately assessing the actual circumstances of physical evidence after it is digitized. The expert assistant can provide opinions to the defense for identifying evidence and trying to help the defense overcome any negative impact of technology. If the witness testifies online, it's important to ensure the smoothness, security, and effectiveness of their testimony from multiple aspects. First, to avoid the risk of leakage of witness biometric information, the State should raise the entry threshold for third-party technology service platforms, strengthen the regulation of their qualifications,

and establish supervision and punishment mechanisms for them. In case of any leakage of online court hearings or the witness' identity information, strict legal penalties and regulatory measures should be imposed on such actions. Second, for the lack of a sense of ceremony in online testimony, corresponding procedures may be set up to require the witness to swear an oath in front of a virtual national emblem with online video technology before remote criminal hearings, and the whole process is recorded and videotaped, to strengthen the sense of awe of the witness to testify. Third, technological means should be utilized to ensure that the witness appears on the same large screen only during testimony or cross-examination. In other periods, they should wait in a virtual conference room isolated from the courtroom to protect the integrity of their testimony from interference. When questioning the witness, it is important to use technical measures to ensure the confidentiality of their face and voice. Only by ensuring that each cross-examination step in online litigation is fully implemented, can the judge properly focus on the court hearings, without overlooking objective facts presented during the hearings due to file transfer issues.

#### 3. Providing appropriate privacy for online communication between the defendant and the defense

Some argue that online criminal litigation hinders the opportunity for private consultations between the defendant and the defense counsel, effectively "separating" these two interdependent parties. This separation undermines the trust relationship that should align their interests, thereby reducing the defense counsel's capacity to defend in remote hearings and leaving the defendant in a more isolated and vulnerable position during online litigation.<sup>38</sup> In this regard, in the context of smart justice, the smart court should set up a virtual meeting room for the defendant and the defense counsel to exchange the facts and defense strategies of the case before the formal remote trial. The defendant and defense counsel may use the means of online meetings provided by the court to express their true views on the case and discuss defense strategies to maximize their interests. The public authority should ensure that during the virtual online meeting, the network video connection is smooth, the audio quality is good, and the whole process is not monitored, recorded, or videotaped.<sup>39</sup> The virtual meeting room is only designed for the convenience of communication between the defense counsel and the defendant. It should be sacrosanct. Under no circumstances should any technological means be used to pry into the content of their conversation. This is to ensure the privacy and security of the defense

<sup>&</sup>lt;sup>38</sup> Cui Yongcun, "On the Institutional Regulation of Remote Criminal Trial," *Chinese Journal of Law* 2 (2023): 132.

<sup>&</sup>lt;sup>39</sup> Gao Tong, "Conflicts and Coordination between Online Litigation and Criminal Procedure: A Perspective from the Criminal Trial Stage," *Nankai Journal (Philosophy, Literature and Social Science Edition)* 1 (2022): 31.

counsel's meeting with the defendant. Where the prosecution uses technological advantages to collect verbal evidence during the virtual meeting between the defense counsel and the defendant, such evidence should be excluded on the grounds of illegal acquisition. Additionally, the parties involved should be held accountable. During the hearing, if the defendant feels the need to communicate privately with the defense counsel, the judge may temporarily suspend the online hearing. The defendant may apply to the court to have a private conversation with his defense counsel in a virtual meeting room. The judge should grant the request and provide technical support for the online meeting. The defendant can consult with the defense counsel in a virtual meeting room, and the counsel explains legal implications and provides legal advice to the defendant. After the online meeting is completed, both parties exit the virtual meeting room and inform the judicial staff online to proceed with the online litigation. This practice will effectively protect the effectiveness of the defense and reflect the proper emphasis on the rights of the defendant in online criminal litigation.

#### Conclusion

Undoubtedly, the right to defense is a crucial right in criminal proceedings. Having this right not only enables the prosecuted to fully and effectively participate in the decision-making process of the litigation but also ensures that specialized agencies handle cases according to due process, thereby avoiding errors induced by procedural violations and effectively safeguarding judicial credibility. While the Chinese Constitution and Criminal Procedure Law establish the principle that the defendant has the right to defense, there are still obstacles to exercising this right in judicial practice. The advent of the digital age and the increasing prevalence of online criminal litigation pose new challenges to the effective exercising of the defendant's right to defense. With the integration of litigation procedures and technology, we need to consider the impacts from two perspectives. On the one hand, remote hearings transcend the constraints of time and space and reduce costs, addressing the demands of modern society. But on the other hand, we should also consider the challenge that technologically-enabled instrumentalism poses to the fundamental rights of the subjects of litigation. Indeed, in the context of smart justice, the integration of science and technology into litigation procedures can bring about changes in the judicial field, but it will never fundamentally overturn the entire legal structure. We should harness the responsiveness of the law, take a positive response attitude to address periodic issues arising in online criminal litigation, and give priority to safeguarding the defendant's right to defense during remote hearings, so as to constantly alleviate the collision between the integration of science and technology and justice and the fundamental rights of the subjects of litigation, and allow online criminal litigation to meet the reasonable needs of future development.

(Translated by SHEN Jinjun)