

## Research on Legal Issues of Asynchronous Trials

Haiping Tan\*

*School of Law, China Jiliang University, Hangzhou, Zhejiang, China*

*\*Corresponding Author.*

**Abstract:** The synchronous development and interactive use of information network technology and judicial practice have become an irreversible trend and a sign of the evolution of the technology-society-law complex, and are also the products of the accumulation of legal practice. This article, from the perspective of the existing rules of asynchronous trial in the Internet court of our country, through sorting out the basis of asynchronous trial mode in the current network environment, takes this as the entry point, connects the legitimacy issues, procedural law connection issues, judicial openness issues, and trial distortion risks faced by asynchronous trial in our civil litigation procedures, explores the roots of the corresponding problems and risks, and provides some useful insights into how to improve the asynchronous trial mode of our court practice.

**Keywords:** Internet Court; Online Trial; Asynchronous Trial; Intelligent Justice.

### 1. Introduction

On April 2, 2018, the Hangzhou Internet Court held a press conference to officially launch the world's first asynchronous trial mode and released the "Regulations on Asynchronous Trial of Internet-Related Cases (Trial)" (hereinafter referred to as the "Asynchronous Trial Regulations"). The COVID-19 pandemic posed significant challenges to offline court trials across China, prompting various courts in the country to emulate the asynchronous trial mode and introduce relevant measures and implementation standards. The "Asynchronous Trial Regulations" define "asynchronous trial" as a trial mode where each trial phase of internet-related cases is conducted on the online litigation platform of the Internet court, with judges, plaintiffs, defendants, and other litigation participants completing the litigation asynchronously within a prescribed time frame

by logging into the platform at their chosen times. On March 28, 2022, the Shanghai High People's Court formulated and issued the "Several Provisions on Online Asynchronous Litigation (Trial)", which explains "asynchronous trial" as a litigation mode where, with the consent of all parties, the people's court designates parties to log into the online litigation platform within a certain period and conduct mediation, evidence exchange, inquiry, trial, and other litigation activities asynchronously under the condition of information symmetry.

In short, asynchronous trial allows both parties to participate in litigation activities at different times, locations, and paces, with each phase of the litigation completed asynchronously within a prescribed time frame by logging into the platform at their chosen times. Its most prominent feature is the asynchronous and non-simultaneous nature of the trial.

### 1.1 Development and Current Status of Asynchronous Trial in Chinese Courts

#### 1.1.1 Regulatory status

Initially, the Hangzhou Internet Court issued the specialized "Regulations on Asynchronous Trial of Internet-Related Cases (Trial)" in March 2018, which first proposed the concept of "asynchronous trial" and detailed its definition, scope of application, procedure initiation, and trial process. Subsequently, the Guangzhou Internet Court released the "Regulations on Online Trial of the Guangzhou Internet Court (Trial)" in October 2019, which included a special chapter on "Online Interactive Trial" as a trial method alongside "Online Trial", "Online Joint Trial", and "Online Demonstration Trial". Lastly, the Beijing Internet Court issued the "Regulations on Electronic Litigation Trial of the Beijing Internet Court (Trial)" in February 2020, which stipulated "Non-Simultaneous Trial" as a supplement to "Simultaneous Trial". Considering the basic characteristics of asynchronous trial, namely "asynchronicity" and "non-simultaneity", both "Online Interactive

Trial" and "Non-Simultaneous Trial" can be uniformly categorized under "Asynchronous Trial".

On May 18, 2021, the Supreme People's Court issued the "Rules for Online Litigation in People's Courts", comprising 39 articles that cover the legal effect, basic principles, applicable conditions, scope of application, and online procedural rules for major litigation phases from filing to execution. These rules represent the first judicial interpretation issued by the Supreme People's Court to guide online litigation work in courts nationwide.

The "Rules for Online Litigation in People's Courts" establish the "Asynchronous Trial" mechanism at the judicial interpretation level. Article 20, in particular, reflects the intention of the "Asynchronous Trial" mechanism:

Firstly, it clarifies the meaning of "asynchronicity" and "non-simultaneity" in trials, as well as the applicable objects and conditions for asynchronous trials. This not only affirms and confirms the early practice of asynchronous trial modes in Internet courts but also provides a legal basis for courts at all levels to conduct asynchronous trials.

Secondly, it expands the scope of application of asynchronous trial methods from trial procedures to mediation procedures and from trial procedures to pre-trial preparation procedures such as evidence exchange and investigation inquiries. This differs from Internet courts, which only apply asynchronous trials to trial procedures, representing a development and extension of Internet courts' practices.

#### 1.1.2 Practical status

The Hangzhou Internet Court pioneered the asynchronous trial mode, breaking through time and space constraints. Parties can complete litigation by logging into the platform asynchronously, which greatly facilitates individuals who cannot attend synchronous trials due to objective difficulties such as being in different countries, busy work schedules, or physical inconvenience. This mode, absorbed and improved upon by the Rules for Online Litigation in People's Courts, has had a significant impact on the transformation and upgrading of judicial services.

Since the Hangzhou Internet Court began exploring the asynchronous trial mode, by February 15, 2020, it had accepted 359 cases, of which 168 were tried online, 96 were conducted using the asynchronous trial mode on the

Hangzhou Internet Court's litigation platform, and 32 were concluded [1]. For cases affected by the pandemic or production and life needs where parties and judges could not attend online trials on time, the Hangzhou Internet Court ruled to convert them to the asynchronous trial mode for trial. Additionally, the Guangzhou Internet Court also conducted some cases using remote asynchronous trials. Furthermore, to avoid the impact of the COVID-19 pandemic on judicial efficiency, some non-Internet courts have also explored asynchronous evidence verification, asynchronous mediation, and asynchronous trial practices. For example, the Zhejiang court system launched the "Phoenix Financial Intelligent Trial" platform, leveraging an intelligent asynchronous trial mode to break time and space constraints and allowing parties to participate in trials using their fragmented time. This enabled the trial of financial cases in Zhejiang to transition from managing one case at a time to managing multiple cases simultaneously, achieving more efficient "multi-case joint trials" and significantly enhancing trial efficiency [2].

#### 1.2 Research Progress on Asynchronous Trial

The asynchronous trial mode, as a Chinese solution in the field of smart justice under the construction of law-based and digital China, not only provides Chinese wisdom for digital rule of law but also offers a reference for the interactive development of information technology and judicial litigation in various countries. Driven by the needs of judicial practice and the impact of the pandemic, the asynchronous trial mode has emerged. Due to its significant improvement in judicial trial efficiency and conservation of judicial resources, the practical community has given it a certain degree of recognition. However, the theoretical community has raised questions about the asynchronous trial mode as it breaks through traditional procedural law principles. The main concern is that it violates the direct and verbal principle of procedural law. The asynchronous trial conducted by the Internet court dilutes the "principle of direct and verbal trial," yet it is also believed to improve litigation efficiency and reduce litigation costs. Therefore, in cases suitable for asynchronous trial procedures, this dilution has a certain degree of legitimacy [3].

Some scholars argue that asynchronous trials violate the requirements of trial-centeredness [4].

Some suggest restricting them to the pre-trial preparation stage, while others propose applying them to simple civil cases [5]. The latter view is actually adhered to in the current practice of remote asynchronous trials.

There are also other criticisms of remote asynchronous trials. For example, some scholars believe that asynchronous trials violate the principle of adversarial proceedings in civil litigation [6]. Some scholars argue that the "interactive dialog box" style of communication in remote asynchronous trials violates the minimum requirements of the verbal principle, and the disorder of "asynchrony" also violates the statutory order of initial statements in court debates and investigations, resulting in the inability to effectively apply litigation responsibilities such as the burden of proof [7].

Based on the viewpoints of the aforementioned scholars, it can be generally summarized that the theoretical community questions the incompatibility between asynchronous trial and the principle of direct and verbal trial. The above discussions highlight the existing issues of the asynchronous trial mode from the macro perspective of principled values. In this paper, the author examines the legal issues of asynchronous trial in Chinese courts from a micro perspective, focusing on the foundation of the asynchronous trial mode. The paper further explores the existing problems, risks, and their causes, and ultimately provides suggestions for improving these issues based on China's actual situation. The aim is to bridge the gap between the theoretical and practical communities and offer insights for optimizing the judicial practice of asynchronous trial.

## 2. The Foundation of Asynchronous Trial

### 2.1 Legal Basis for Asynchronous Trial

The people's courts conduct online trials based on information network technology, which is not only a necessity driven by objective technological development but also a scientifically reasonable choice. It possesses both theoretical legitimacy and practical scientificity. In the post-pandemic era, with the further application of information technology in the judicial work of people's courts, the orderly promotion of asynchronous trials for certain cases has become a trend. It does not violate the principle of procedural fairness and can comprehensively protect the litigation rights of

the parties involved. The legal basis is as follows:

Essentially, the asynchronous trial mode refers to a trial conducted over a network where the time intervals for each litigant's responses are extended, meaning they are not synchronized or simultaneous. More precisely, compared to conventional trial modes, asynchronous trial is more like a mode where parties are allowed to speak with a delay. Additionally, according to the procedural regulations on asynchronous trial by the Hangzhou Internet Court, when procedural participants express their opinions, they not only do so with a delay but primarily through written form. However, the legal issues of delayed expression and written representation can be addressed through virtual reality technology and audio technology. In fact, there is no inherent dependency between delayed expression and remote trial, and conventional trial modes also involve delayed expression and remote trial.

Furthermore, the legal basis for asynchronous trial is embodied in the following three points: Firstly, the purpose of law is to ensure justice and efficiency, and asynchronous trial can enhance trial efficiency, reducing time and costs. It also safeguards evidence and procedures during the trial process, thereby promoting judicial fairness and efficiency. Secondly, the consent of both parties is a prerequisite for initiating asynchronous trial. Upon application by the parties or proposal by the judge and with the parties' consent, the trial can be converted from asynchronous to synchronous, fully respecting the parties' right to procedural choice. Both the initiation and conversion of the trial process fully respect the autonomy of both parties. Thirdly, asynchronous trial is not merely a procedural stage in the litigation process; it is not simply a statement by the parties or written preparation before the trial. It has the finality of dispute resolution, allowing the parties to obtain a complete ruling on the dispute through the asynchronous trial method.

### 2.2 Legal Scope for Asynchronous Trial

The legal scope for asynchronous trial lies in its practical legal basis: Firstly, on March 30, 2018, the Hangzhou Internet Court issued the "Regulations for Asynchronous Trial of Internet-Related Cases (Trial)," which mainly stipulate that asynchronous trial is applicable to civil cases with clear facts, definite legal

relationships, and suitability for online trial. It is not applicable to cases where the ordinary procedure is applied or where the parties do not consent. If all parties voluntarily apply for asynchronous trial, the judge decides whether to initiate it. The judge may propose the asynchronous trial procedure to the parties based on the case circumstances and technical conditions. If all parties agree or one party agrees and the other fails to express an opinion within the prescribed time, this trial method can be applied. If neither party selects it, asynchronous trial cannot be initiated [8].

Secondly, issued on May 18, 2021, and effective from August 1, 2021, the "Rules for Online Litigation in People's Courts" is the first judicial interpretation issued by the Supreme People's Court to guide online litigation work in courts nationwide. Article 21 of the Online Litigation Rules stipulates that, with the consent of all parties, litigation activities such as mediation, exchange of evidence, investigation and inquiry, as well as trials, including court hearings, can be conducted asynchronously by each party logging into the litigation platform separately. In cases tried under the small claims procedure or the simplified civil or administrative procedure, where synchronous online hearings are inconvenient, all parties agree to asynchronous trial, and after evidence exchange or investigation and inquiry, there are no disputes over the main facts and evidence of the case, asynchronous hearings can be conducted [9].

Moreover, the procedural innovation of asynchronous trial compared to traditional procedural law lies in its asynchronous and non-simultaneous expression mechanism. The operation of this mechanism in traditional trial methods is embodied in written trials, which are generally only applicable in a few cases involving legal disputes rather than factual disputes in appellate trials. In the asynchronous trial mode, the verbal communication conducted through the asynchronous and non-simultaneous expression mechanism, embedded in a digital format, is similar in nature to a written trial and can be compatible with the existing procedural law framework.

### **2.3 Demand and Conditions for Asynchronous Trial**

The practical reasons for courts to adopt asynchronous trial mainly lie in improved efficiency and reduced time costs.

Asynchronous trial allows judges to hear cases at different times and locations without requiring all parties and witnesses to be present simultaneously as in traditional trials. This approach can reduce the time and cost of hearings, while also allowing judges to schedule their time more flexibly, enhancing work efficiency.

The main reason for society to accept asynchronous trial is for convenience and time savings. Traditional hearings require parties and witnesses to be present, consuming significant time and effort. Asynchronous trial allows parties and witnesses to submit evidence and state their opinions at their own time and place without attending the hearing in court. This approach makes it more convenient for people to participate in litigation, reducing time and cost wastage and increasing efficiency. At the same time, asynchronous trial also allows people to participate in litigation more safely, avoiding the impact of factors such as the pandemic on hearings.

Since asynchronous trial refers to a method where the court hears cases in an asynchronous and non-simultaneous manner, meaning the judge and parties do not need to be present at the hearing simultaneously but communicate and conduct the trial through written materials, emails, video conferences, etc., the following conditions are required for asynchronous trial: Firstly, the court must have digital technology and equipment to support online trials and file transfers. Secondly, the judicial system must have a well-established electronic litigation platform and relevant laws and regulations to ensure the legality and fairness of asynchronous trial. Thirdly, the parties must have digital technology and equipment to participate in online trials and file transfers. Fourthly, the parties and lawyers must have sufficient digital literacy and skills to proficiently use the electronic litigation platform and related tools.

## **3. Issues and Risks of Asynchronous Trials**

### **3.1 The Legitimacy of Asynchronous Trials**

Asynchronous trial mode raises the following legitimacy issues. Firstly, compared to procedural law norms, the primary concern lies in the procedural legitimacy of the asynchronous trial mode. Doubts about the legitimacy of "non-synchronous" and "non-simultaneous" trials stem from adherence to traditional

procedural law principles. Scholars often base their arguments on the theory of direct trials and contend that asynchronous trials violate one or more fundamental principles of direct trials. For example, asynchronous trials violate the principle of concentrated trials by adopting a scattered trial method; they also contravene the principle of oral trials by using an interactive chat box format for human-computer dialogue; and their dual breakthroughs in time and space dilute the prerequisite requirements of trial-centeredness. In a direct trial, a tripartite relationship is formed between the judge and both parties, allowing for mutual restraint and supervision. However, in asynchronous trials, the interactive dialogue between the judge and the parties occurs outside of each other's view, weakening the supervisory and restraint effects. Secondly, compared to substantive law norms, the main concern lies in the legal legitimacy of the asynchronous trial mode. The asynchronous trial mode is an innovative approach by the Hangzhou Internet Court to integrate information and network technology into judicial trial practices, and it represents a Chinese solution for pursuing digital justice in the era of digital law. The legal foundation is not yet well-established and mature. Apart from relevant normative legal documents issued by the three major Internet courts and the judicial interpretation of the "Rules on Online Litigation Procedures of the People's Courts" issued by the Supreme People's Court, there is no higher-level legal source in the jurisprudential sense, nor a substantive legal foundation, thus rendering the legal legitimacy of asynchronous trials insufficient.

Thirdly, the communication channel is single and unstable. Due to computer maintenance or network failures, parties in asynchronous trials may be unable to communicate in real-time, express their litigation rights, or protect their interests, thereby affecting the progress and outcome of the case.

Fourthly, there are issues with the protection of litigation rights. Parties may feel unfairness due to the lack of face-to-face communication with the judge, raising doubts about the legitimacy of asynchronous trials. Furthermore, they are not given the opportunity for synchronous communication to present their views or prove their rights. This may lead to parties losing confidence and questioning the fairness and efficiency of the judiciary.

### **3.2 Integration of Asynchronous Trials with Procedural Law**

Asynchronous trials allow both parties to participate in litigation activities separately during their free time, at different times, locations, and asynchronously. All stages of the litigation can be completed within the prescribed time limit by logging into the platform at a time chosen by each party in a non-synchronous manner. Its most significant feature is the non-synchronicity and non-simultaneity of the trial. Tracing its development, we move from offline direct trials to online synchronous trials, and then to asynchronous trials; from offline to online; from face-to-face to screen-to-screen. The asynchronous trial mode breaks through the spatial dimension and then the temporal dimension of traditional procedural law, challenging the principle of direct and oral trials. Therefore, the integration of asynchronous trials with procedural law primarily faces issues in both temporal and spatial dimensions and the principle of direct and oral trials.

The asynchronous trial mode disrupts the temporal and spatial dimensions of traditional procedural law. The traditional judicial process framework is constrained and constructed by a two-dimensional model of time and space. In terms of the temporal dimension, traditional procedural law requires litigation participants to participate in hearings, cross-examinations, and other trial procedures within statutory periods, with the judge making a fair trial based on objective facts and legal norms. Asynchronous trials, however, evolved through online trials, breaking the simultaneity of traditional direct trials and providing litigation subjects with more flexible ways to participate. Parties can participate in litigation activities at different times, with each stage of the litigation completed within the prescribed time limit by logging into the platform in a non-synchronous manner. In terms of the spatial dimension, traditional procedural law requires all litigation participants to be present in a physical courtroom for trial procedures, emphasizing the personal experience and theatrical effect of the trial process. Asynchronous trials, on the other hand, move the courtroom scenario to a digital one, conducting litigation trials in a network scenario built through information technology, and its unique interactive chat box trial method is out of sync with traditional procedural law.

The asynchronous trial mode challenges the principle of direct and oral trials in procedural law. The principle of direct and oral trials combines the principles of direct trial and oral trial, meaning that the judge should center the trial on courtroom proceedings, directly examine various types of evidence through online trials, listen to the claims, arguments, and debates of both parties, and hear the oral statements of other litigation participants, so that the judge's inner conviction or free evaluation of evidence forms during the online trial, leading to a fair judgment.

The main difference between the asynchronous trial mode and the principle of direct and oral trials lies in whether the litigation materials on which the judge bases their decision are based on a review of written documents or on hearing the oral statements of the parties, and whether the evidentiary materials in the case are formed closest to the judge in court or outside the court. Asynchronous trials do deviate from the traditional understanding of the judge's personal experience and the oral nature of party statements. In direct trials, the judge and the parties form a triangular structure, allowing for mutual supervision. Asynchronous trials separate the interaction between the judge and one party from the view of the other party, weakening mutual supervision. Compared to oral trials, the "interactive chat box" communication method in asynchronous trials violates the basic requirements of the oral principle, and the use of machine language impacts the judicial personal experience pursued in civil litigation.

### 3.3 The Issue of Judicial Transparency in Asynchronous Trials

Ensuring trial openness in online litigation is an important criterion for Internet justice to demonstrate judicial fairness and maintain judicial credibility. Trial openness encompasses two aspects: openness to the parties and openness to the public. Asynchronous trials lack the temporal and spatial conditions and verbal foundation of concentrated trials, thus lacking the legal soil for judicial openness. Although the asynchronous trial mode can be open to the parties, it is difficult to achieve openness to the public, and its openness is only relative and narrow. This is mainly manifested in the following points:

The trial process is not continuous, and the

public may be unable to observe the entire trial process, which may lead to distrust in the trial outcome; trial information is not immediate, and the public may not be able to promptly learn about the latest developments in the case, potentially causing doubts about judicial fairness; the trial process is not transparent, and the public may not be able to understand the specific details of the trial, which may lead to suspicions about judicial fairness; the trial schedule is uncertain, and the public may not be able to arrange time in advance to observe the trial process, potentially leading to dissatisfaction with judicial openness.

Furthermore, trial openness refers to litigation conducted in a specific physical space and time frame, with the presence of the parties as the main participants, which has special spatiotemporal characteristics and limitations. Compared to real-time, interactive face-to-face trials, the physical space of the court disappears in asynchronous trials, allowing parties, litigation participants, and judges to participate in trials within more rational time intervals. This overturns the public's inherent understanding of judicial openness. Additionally, asynchronous trials require multiple communications and exchanges between the judge and the parties, demanding more time and effort, posing a challenge to judicial openness. Finally, asynchronous trials may involve private issues of the parties, business secrets, or national security. To protect the privacy of the parties and the security of important information, it is difficult for asynchronous trials to be open to the public at specific times.

### 3.4 The Risk of Trial Distortion in Asynchronous Trials

Due to the non-synchronous and non-simultaneous nature of asynchronous trials and the interactive chat box communication method, there is a certain risk to the authenticity of trial information.

The risk of identity authenticity: Instead of introducing an electronic signature system, participants are required to handwrite their signatures on a touchscreen. This method makes it difficult to ensure the authenticity of the signature, and in case of disputes, it is challenging to determine through identification methods whether the signature was made by the individual. The delayed expression characteristic of parties in asynchronous trials also easily leads

to uncertainty in party identification. In this mode, the person logging into the system each time may not be the same, non-party personnel can directly operate as parties, and the parties themselves can seek help from external social resources. It is difficult for the present parties to prove the consistency of identity before and after, and the true intentions of the parties are unclear, violating the preconditions for conducting traditional litigation procedures.

**The risk of evidence authenticity:** The presentation of evidence in asynchronous trials differs from previous judicial norms regarding the conditions set for evidence authenticity. In regular trial processes, to judge the authenticity of evidence, the original documents or objects can be examined. However, in asynchronous trials, due to the lack of objective conditions for on-site examination of the original documents or objects, it is impossible to authenticate the evidence.

### **3.5 Data Security Risks in Asynchronous Trials**

With the openness, interactivity, and distributed nature of the Internet, data security risks have become increasingly prominent. In the context of the Internet, data security risks also pose challenges to the asynchronous trial model. The primary difference between the asynchronous trial model and the synchronous trial model lies in the real-time nature of data transmission. In synchronous trials, both parties engage in immediate video or voice calls; whereas in asynchronous trials conducted by the Hangzhou Internet Court, communication between the parties takes place through non-real-time forms such as text, images, videos, etc., allowing both parties to present arguments, defenses, submit evidence, and make court statements without real-time interaction.

Therefore, compared to synchronous trials, asynchronous trials mainly present the following data security risks:

**Risks of Data Storage and Transmission:** In asynchronous trials, both judges and parties need to store and transmit documents, evidence, and other crucial information through online platforms. As network transmission may be subject to hacker attacks or data breaches, data faces risks during transmission and may also encounter issues such as data leakage, loss, or tampering during storage.

**Hardware and Software Security Risks:**

Asynchronous trials require users to purchase and use their own devices such as computers and mobile phones, resulting in less stringent control over hardware security compared to synchronous remote trials. Additionally, asynchronous trials necessitate the installation of corresponding software on users' computers or mobile phones, requiring users to ensure the security of the software themselves.

**Data Backup and Recovery Risks:** Asynchronous trials require users to upload case materials to the platform, and the platform's backup and recovery measures also impact data security.

**Challenges in Digital Evidence Examination:** In asynchronous trials, evidence submitted by parties may be subject to tampering, forgery, or deletion. Without rigorous digital evidence examination procedures, it is difficult to ensure the authenticity of the evidence.

Furthermore, with the networking of judicial trial processes, a vast amount of information is transmitted over the Internet in digital form. If the technical security of the entities transmitting and aggregating this information and their underlying infrastructure is not adequately ensured, there is an inevitable risk of information being leaked, maliciously tampered with, or attacked by data streams. Therefore, data security issues require significant attention and effective resolution.

## **4. Causes of Asynchronous Trial Issues and Risks**

### **4.1 Policy Leadership in Judicial Reform**

As an innovation in judicial reform practices, asynchronous trials represent the work achievements of judicial authorities and judicial workers actively responding to national judicial reform policies. In the absence of legitimacy, practitioners boldly experimented and carefully explored, forging their own path under the guidance of the state's macro policies. Macro policies serve as both a direction and a guide, shaping the development of asynchronous trials and connecting with their legitimacy issues, ultimately attributed to the policy leadership in judicial reform.

On the one hand, it is related to the policy leadership in the reform of simplifying and streamlining litigation procedures. The Committee has proposed promoting trial-centered litigation system reforms and

improving a diversified dispute resolution mechanism that is organically connected and coordinated. Subsequently, the Supreme People's Court issued the "Implementation Measures for the Pilot Reform of Simplifying and Streamlining Civil Litigation Procedures," requiring further promotion of the reform. In practice, asynchronous trials, as a new dispute resolution procedure, are mainly applied to cases heard under simplified procedures for small claims or civil and administrative cases. Asynchronous trials represent a technology-driven model for quick trials of simple cases and are a beneficial exploration of the pilot measures for simplifying and streamlining litigation procedures. The original intention of asynchronous trials was to address the difficulty of both parties being unable to attend court at the same time due to the impact of the epidemic or inconvenience in their daily lives, particularly for cross-border or long-distance cases, significantly reducing litigation costs for parties and optimizing the allocation of judicial resources.

On the other hand, it aligns with the policy leadership in digital judicial reform. The Communist Party issued the "Outline for Building a Law-Based Society (2020-2025)," which states, "We should promote the deep integration of technological innovations such as big data, artificial intelligence, and blockchain with judicial reforms, improve the 'Internet + litigation' model, strengthen the construction of litigation service network platforms, and comprehensively build a modern digital judicial service system that is efficient, diversified in dispute resolution, convenient for the people, smart and precise, open and interactive, and integrated and shared." The asynchronous trial model, as an innovative achievement of the "Internet + litigation" model in the digital era, is an important measure to promote the realization of a law-based China and echoes the policy orientation of digital judicial reform.

#### 4.2 Outdated Legal Scenarios

The issue of the connection between asynchronous trials and procedural law, that is, the digital scenarios established by the asynchronous trial model have disrupted the time, space, and direct verbal scenarios of existing procedural law. With the development of science and technology, legal evolution needs to strengthen its connection with the times.

Traditional legal proceedings, which must rely on offline physical courtroom scenarios, are somewhat lagging behind. There is an urgent need for the renewal and iteration of existing legal scenarios to promote the synchronized development of law and technology. Therefore, the root cause of the issue of the connection between asynchronous trials and procedural law lies in the outdated legal scenarios.

Professor Shu Guoying once used the terms "judicial public square" to "judicial theater" to describe the iterative evolution of judicial scenarios from pre-modern to modern times [10]. The existing judicial theater scenario, mediated by physical courtroom scenarios, emphasizes the judicial presence of judges, the ceremonial nature of trials, the centrality of court proceedings, and the pursuit of judicial fairness and justice. With changes in the times and technological advancements, the judicial theater scenario is inevitably somewhat outdated. Firstly, the judicial theater scenario incurs high litigation costs, making it difficult for the public to participate in litigation. Secondly, due to objective barriers such as the pandemic, litigants are unable to attend court to participate in trials, rendering the judicial justice of the judicial theater scenario unattainable. Thirdly, the judicial theater scenario is closed, excessively emphasizing ceremonial aspects while neglecting the importance of judicial accessibility. For judges, the judicial theater scenario is a relatively closed physical space, which is not conducive to judicial openness or judicial supervision. For parties involved, being in a relatively unfamiliar environment such as a courtroom can be restraining and uncomfortable, preventing them from experiencing judicial accessibility and thus not expressing genuine respect for the law [11].

In contrast, the digital judicial scenario represents an irresistible historical trend in the context of digital transformation, a requirement of the information and network era, and a necessary part of judicial reform that leverages technology to pursue digital justice in judicial trials. The digitization of justice facilitates more convenient litigation participation, simplifies and streamlines litigation procedures, and brings justice closer to the people, offering broad application prospects [12].

#### 4.3 Instrumental Rationality of Participating Entities



The issue of judicial openness in asynchronous trials is ultimately related to the instrumental rationality of participating entities. Instrumental rationality is an important concept in the critical theory of the Frankfurt School, with its most direct and significant origin in the concept of "rationality" proposed by Max Weber. Weber distinguished between two types of rationality: value rationality and instrumental rationality. Value rationality believes in the unconditional value of certain actions, emphasizing pure motives and choosing the right means to achieve one's intended purpose, regardless of the outcome. Instrumental rationality, on the other hand, is driven by the pursuit of utilitarian motives, where actions are guided by reason to achieve desired ends, with actors purely considering maximizing results while disregarding human emotions and spiritual values [13-15].

The core of instrumental rationality is the pursuit of efficiency, and the issue of judicial openness in asynchronous trials is caused by the instrumental rational pursuit of efficiency by various litigation participants. The instrumental rationality of courts lies in catering to the central policy orientation of simplifying and streamlining litigation procedures and digital judicial reform, while neglecting the foundational establishment of micro-level network technology, legal norms, and digital capabilities of judicial personnel, actively pursuing judicial efficiency and policy benefits. The instrumental rationality of judges lies in pursuing quick trials for simple cases, transitioning from managing one case at a time to managing multiple cases simultaneously, achieving multi-case joint trials to improve trial efficiency. The instrumental rationality of litigants lies in reducing litigation costs, lowering personal time and transportation costs, and using their fragmented and flexible time to improve the efficiency of rights protection. Furthermore, the pursuit of instrumental rationality by litigation participants at the expense of justice and value rationality makes them passive "tools" of digital justice and smart courts. Choosing the asynchronous trial model to participate in litigation without technical skills, inadequate laws and regulations, and unfamiliarity with tools and equipment also lays the groundwork for issues related to judicial openness [16,17].

#### **4.4 Unequal Distribution of Digital Judicial Resources**

The risks of identity authenticity, evidence authenticity, and data security in the asynchronous trial model, as well as issues of data security, stem from digital technology issues. The application of technology can make judicial trials more convenient and efficient. However, the unreasonable allocation of technological resources and imbalanced safeguards can lead to unequal distribution of digital judicial resources, bringing efficiency and convenience but also risks of distortion and data security. These problems are ultimately related to the unequal distribution of digital judicial resources, mainly manifested in the following aspects:

**Unequal digital devices and network bandwidth:** Digital justice relies on high-quality digital devices and network bandwidth support. However, in local courts, due to investment and technological constraints, high-quality digital devices and network bandwidth cannot be provided, leading to uneven data security guarantees and authentic information identification capabilities in digital justice [18].

**Uneven digital literacy among judges and legal professionals:** Digital justice requires judges and legal professionals to possess a certain level of digital literacy, including mastery of digital technology, document processing, use of video conferencing, etc. However, there are varying levels of digital literacy among judges and legal professionals in different regions or courts, resulting in difficulties in synchronizing the progress of digital judicial trials, which in turn affects data security guarantees and authentic information identification capabilities in digital justice [19].

**Different thresholds for accessing digital judicial resources:** Some regions or populations may be unable to access digital judicial resources due to cultural, educational, economic, or geographical reasons. This results in low inclusivity and fairness of digital judicial services, posing risks of trial distortion and data security in asynchronous trials [20].

**Asymmetric data and knowledge:** Digital justice requires massive amounts of data and knowledge support. However, due to incomplete information technology construction and insufficient knowledge accumulation in different regions or courts, there is an asymmetry in data and knowledge, affecting the accuracy and

security of digital justice.

Limited scope of application for asynchronous trials: In practice, as a new dispute resolution procedure, asynchronous trials are mainly applied to cases heard under small claims procedures or civil and administrative summary procedures. Asynchronous trials may not be suitable for cases with special characteristics, such as online commercial disputes, online infringement, and intellectual property rights.

## 5. Suggestions for Improving the Application of Asynchronous Trials in Chinese Courts

### 5.1 Summarizing Feedback from Litigation Participants

The legitimacy of asynchronous trials stems from judicial policy guidance. The formulation and introduction of laws, regulations, and policies represent a top-down legal activity from the central to local levels. The legitimacy of asynchronous trials directly involves the lawful rights and interests of litigation participants, who are also direct participants in this trial mode. Fully listening to and absorbing the opinions and suggestions of litigation participants is a democratic approach to resolving legitimacy issues from the bottom up, from local to central levels, and it is a solution with Chinese characteristics. Feedback from litigation participants should be summarized from the following aspects:

**Procedures and Systems:** Through feedback from litigation participants, improve litigation procedures and legal systems, formulate detailed legal provisions and procedural standards, and clarify the scope of application, procedures, and legal systems for asynchronous trials to ensure the legitimacy of procedural and institutional norms and guarantee the legitimacy of the asynchronous trial mode.

**Communication Mechanisms:** Through feedback, strengthen diverse exchanges to ensure smooth communication. Emphasize the integration of litigation intelligence and technological forces to create a diversified platform for cross-communication and transformation. Establish an effective communication mechanism, clarify communication channels, and appoint dedicated communication personnel to ensure timely communication and maintain the availability of rights and obligations.

**Protection of Litigation Rights:** Summarize the opinions and suggestions of litigation

participants to protect their litigation rights, establish mechanisms for online communication, consultation, and Q&A, promptly respond to their demands and questions, and ensure that relevant litigation rights and interests are fully protected.

**Participant Experience:** Feedback from litigation participants regarding the simplicity, intuitiveness, ease of operation, and efficiency of the asynchronous trial mode can be collected and summarized to identify the aspects that participants are most dissatisfied with and most expect improvement in, and then address these issues.

**Functional Improvement:** Feedback from litigation participants on lacking, needing strengthening, or requiring improvement functions in the asynchronous trial application can also be summarized. For example, participants can suggest that the application should support online consultation, online mediation, and online lawyer consultation.

**Safety and Security:** Feedback from litigation participants on safety and security aspects of the asynchronous trial application, such as information security, privacy protection, and identity authentication, should be addressed by enhancing security measures to improve the protection of participants' information security.

**Applicable Cases:** To determine the suitability of case types for the asynchronous trial application, it is necessary to understand feedback and usage by litigation participants and then screen case types and focus strategies based on their feedback.

In summary, summarizing feedback from litigation participants is a crucial path to improving the application of asynchronous trials. Only by strengthening interaction with litigation participants can we better help the asynchronous trial mode identify and resolve issues, improve satisfaction with judicial trials, and thereby promote the deep integration of AI and justice.

### 5.2 Appropriate Optimization of Online Litigation Rules

To address the issues of asynchronous trial mode in terms of time and space dimensions and its connection with the principle of direct verbal testimony in procedural law, the following methods are suggested to optimize online litigation rules:

**Optimization of the Time Dimension:** In the

asynchronous trial mode, the time dimension is a critical issue. To address the problems arising from time asynchrony, the following measures can be taken. Firstly, set clear litigation deadlines to ensure timely trial of cases, referring to traditional trial procedures. Secondly, stipulate deadlines for evidence submission, along with submission methods and format requirements, to avoid delays in case handling and ensure clarity of evidence. Thirdly, establish response deadlines to address the separation of time and space in the asynchronous trial mode, ensuring timely responses in information transmission for smooth case proceedings.

**Optimization of the Space Dimension:** In the asynchronous trial mode, the digital scene replaces the physical courtroom, relying more on online communication and document transmission than physical attendance. To address this, optimization can be pursued through the following. Firstly, design an interactive interface to facilitate real-time viewing of case status, operation times, additional materials, etc. Secondly, introduce blockchain technology to establish a fair and trustworthy electronic evidence storage mechanism, providing infrastructure for asynchronous trials.

**Optimization of the Principle of Direct Verbal Testimony:** The principle of direct verbal testimony requires oral statements from parties. However, in the context of online litigation, traditional verbal modes face digital transformation challenges. To address digital iteration, it is necessary to reconstruct the value rules of the principle, incorporating digital language into the direct verbal system or the broader principle of direct verbal testimony. In the asynchronous trial mode, both interactive communication frames and digital language serve as communication mediums, sharing the core essence of the expression mechanism with the principle of verbal expression. This forms the value basis for optimizing the principle of direct verbal testimony, aiming to restore the direct verbal effect of physical scenarios in asynchronous trials and enhance the discourse effectiveness of online litigation.

In summary, by optimizing online litigation rules, establishing reasonable communication between asynchronous trials and existing procedural laws, making optimizations based on existing legal norms, and ensuring the principles and rules of procedural law are implemented

through technological means and institutional designs of the online litigation platform, an organic connection between procedural law and online litigation rules can be established.

### **5.3 Diversified Resolution of Risks in Judicial Transparency**

The discontinuous trial process, delayed trial information, lack of transparency in the trial process, and uncertain trial times in China's asynchronous trial mode, coupled with the absence of the temporal and spatial conditions and verbal basis of concentrated trials, inevitably pose risks to judicial transparency. These can be addressed through the following aspects:

#### **Restricting the Scope of Asynchronous Trials:**

Firstly, regarding the scope of applicable cases, formulate relevant laws and regulations to clarify which types of cases are suitable for asynchronous trials, ensuring that the criteria considered in dividing the scope of trials comply with legal provisions and principles, and matching different trial rules to different types of cases. Secondly, regarding the scope of applicable procedures, reference can be made to the written preparation procedure in the Stuttgart model of German civil litigation, limiting asynchronous trials to the written preparation procedure stage or pre-trial preparation procedures to avoid judicial transparency issues in direct trials.

**Establishing Standards for Case Information Disclosure:** Formulate scientific and reasonable regulations and standards to strictly standardize the procedure for disclosing standardized documents, disclose necessary information such as evidence materials from all parties, and protect the right to know and the right to supervision of parties or other stakeholders.

**Developing Search Engine Inquiries:** Establish a search engine platform to provide inquiry services for asynchronous trial cases. Disclose case information through court websites, judicial department websites, and the National Court Disclosure Network, allowing parties to understand case progress and trial results online.

**Establishing a Litigation Archive Management System:** Establish an archive management system for asynchronous trials, strictly following legal procedures for registration, archiving, and filing to ensure the secure and lawful retention of trial information and procedural records, and allow both parties to access or copy them after the trial.

**Standardizing Disclosure Periods:** Courts can publish trial schedules, data information, trial results, etc., through announcing trial times and posting trial schedules on official websites, strictly regulating disclosure periods to allow public observation and supervision of trial processes, preventing missed disclosure deadlines due to time differences, and increasing participation and transparency in judicial disclosure.

**Strengthening Technical Review and Supervision:** Use technological means to supervise and review the asynchronous trial process to ensure its legality and compliance. Introduce third-party professional supervisory bodies to oversee the trial process, audit data information, and visually disclose non-compliant procedures and information, ensuring the fairness and openness of the trial process.

#### **5.4 Balancing and Ensuring Trial Technical Resources**

To address the issues of distortion in asynchronous trials and data security, the following aspects should be considered to balance and ensure trial technical resources:

**Increase investment in digital justice resources.** The government can increase investment in digital justice technologies and equipment to enhance the level of digital justice infrastructure, thereby lowering the barriers to using digital justice and enabling more people to equally benefit from it.

**Provide digital justice training.** To equip more people with the skills and knowledge of digital justice, the government can offer training programs to enhance the digital literacy of the public and legal professionals, enabling them to better utilize digital justice tools to solve problems.

**Promote digital justice public services.** The government can establish digital justice public service platforms to promote the use of digital justice tools, benefiting more people. Through these platforms, people can independently inquire about legal information, understand their rights and obligations, and submit legal documents online, thereby achieving equality and sharing of digital justice services.

**Expand digital justice application scenarios.** Digital justice can be applied not only to small claims procedures or civil and administrative summary procedures but also in other areas such as online commercial disputes, network

infringements, and intellectual property rights. This not only addresses the issue of uneven distribution of digital justice resources but also expands the scope of its use, enhancing its social influence.

**Strengthen information security.** Enhance the research and application of information security technologies, including data encryption, firewalls, intrusion detection, and security auditing, to ensure that data is not leaked or tampered with. Additionally, courts should establish a comprehensive information security management system, including data backup and recovery, data storage and access permissions management, to promptly restore and repair data in case of leaks or damage. Furthermore, courts should strengthen information security training and supervision for staff, improving their awareness and skills in information security to prevent security incidents caused by negligence or deliberate actions.

**Reshape standards for identity and evidence authenticity.** Firstly, given the asynchronous and non-simultaneous activities of parties in asynchronous trials, which can lead to uncertainty in party identification, a unified national online identity verification system for parties should be established and implemented to address the challenges posed by existing party identification norms in asynchronous trials. Secondly, regarding the definition of evidence authenticity, electronic data evidence differs from traditional original evidence forms. Therefore, it is necessary to provide a functionalist interpretation of existing norms to offer practical and targeted standards for the implementation of asynchronous trials, guiding the specific practice of this trial mode based on norms.

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