

# The Normative Structure of Adjudication Rules for Generative Artificial Intelligence

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## Abstract

From the perspective of Hart's theory of the rule of law, the rise of generative artificial intelligence has exposed deficiencies in the secondary rules of the existing legal system. This paper examines the judicial challenges arising from the rule dilemma, explores how multidimensional jurisprudence supports rule reconstruction, and demonstrates the integrated logic of authority, institutional rationality, and moral values in designing AI adjudication rules. It proposes pathways for achieving rule standardization and institutionalization within the context of cyber information law, aiming to establish a generative AI adjudication framework that embodies legitimacy, practicality, and value legitimacy.

## Introduction

The current applications of generative artificial intelligence (AIGC) are continuously emerging, giving rise to a series of new legal disputes and adjudication challenges. For example, the use of AIGC to generate images has sparked controversies over originality and copyright ownership. Its inherent nature as a human-machine collaboration creates a direct conflict with the current legal requirement for originality to be an expression dominated by human intellectual input and given form (Abbott & Rothman 2023). Similarly, incidents of infringing personal rights by using AI for face-swapping or voice cloning without permission have become frequent. However, current Chinese legislation has yet to regulate the nature of such rights, leading to uncertainty in judicial rulings.

Beyond content generation, the infiltration of AI into the judicial process itself—such as AI-assisted sentencing systems and evidence verification—presents deeper normative challenges. Judicial practice remains divided on whether AI face-swapping constitutes an infringement of portrait rights or personal information rights, while practices such as voice cloning can only be broadly categorized under the protection of personality rights. In addition, in disputes arising from content platforms erroneously classifying users' original

content as 'AI-generated' and imposing penalties accordingly, adherence to the 'burden of proof' principle would place users at a disadvantage. They would struggle to demonstrate the illegitimacy of the platform's algorithmic decisions, thereby facing an unfavorable evidentiary position. The above practices indicate that generative AI is challenging the existing legal framework, with typical situations encompassing the legal recognition of intellectual achievements, new forms of infringement on personal rights, and disputes over the legality and legitimacy of algorithmic decisions (Zhang 2024).

## The Dilemma of Judicial Rules from the Perspective of Hart's Rule of Law Theory

Hart (2012) once pointed out that a society with only primary rules would face serious defects such as uncertainty, stasis, and inefficiency. To overcome these defects, the legal system needs to introduce secondary rules, namely: to address 'uncertainty,' recognition rules are introduced to identify the sources of validity of legal rules; to address 'stasis,' change rules are introduced to prescribe the ways rules can be created and abolished; to address 'inefficiency,' adjudication rules are introduced to authorize specific institutions to make authoritative decisions on the application of rules.<sup>6</sup> In terms of adjudication practices related to generative AI, the current rule system is in trouble precisely because of the imperfection of secondary rules:

### Unclear recognition standards (uncertainty)

The absence of clear legal recognition rules has plunged the public into a state of high uncertainty when confronting the use of generative artificial intelligence. This not only directly undermines legal predictability, making it difficult for ordinary users to determine their rights over generated content, but also obscures whether their actions cross the line

into infringement. Consequently, it fosters significant apprehension and risk-averse behavior in practical applications. Simultaneously, judicial authorities grappling with disputes involving these emerging technologies face the challenge of ambiguous adjudicative grounds due to the absence of unified standards and clear value guidance. They must balance technological innovation with rights protection while seeking reasonable interpretive pathways in selecting and applying rules, significantly increasing the uncertainty and complexity of judicial practice.

### **Absence of Rule Evolution Mechanism (Static Nature)**

The current legal system generally exhibits pronounced static characteristics. Due to the absence of a dynamic updating mechanism that keeps pace with the times, legislation often lags behind technological advancements. As emerging technologies continuously emerge, legal norms struggle to respond in a timely manner, creating a disconnect between institutional inertia and practical demands. Under these circumstances, judicial practice can only struggle to cope by analogical application or broad interpretation of existing rules. However, this remedial approach is not only inefficient but also prone to generating uncertainty in legal application. Consequently, the supply of rules consistently lags behind technological progress, struggling to fill the legal gaps and rights vacuums that emerge in the rapidly evolving digital society.

### **Deviation in Judicial Standards (Inefficiency)**

Faced with the complex disputes arising from the rapid advancement of artificial intelligence technology, judges in judicial practice often have to exercise their discretionary power based solely on personal experience and subjective judgment due to the lack of clear, systematic legal norms and unified adjudication guidelines. This approach, dominated by individual judgment, easily leads to inconsistent rulings in similar cases, resulting in fragmented and unstable judicial standards. The consequences not only undermine the uniformity, authority, and predictability of legal application but also erode public trust in judicial rulings. At a deeper level, this uncertainty may further weaken judicial credibility, destabilize the foundational stability of the legal order, and consequently impact the operational effectiveness and legitimacy of the entire social governance system. In short, the rise of generative AI has highlighted the flaws in the secondary rules of the existing legal system: the lack of universally accepted recognition rules creates uncertainty in the application of law; the absence of institutionalized channels for rule changes slows the law's ability to respond to new issues; and the lack of clear adjudication rules leads

to inconsistent standards in judicial practice. These rule dilemmas call for a reflection on and reconstruction of the current normative structure.

## **Authority, Rule Discourse, and Moral Context: The Theoretical Basis for AI Referee Rule Generation**

To address the dilemma of rules in generative AI adjudication, it is necessary to integrate multi-dimensional theoretical perspectives based on jurisprudence and clarify the legitimacy basis and conditions for the emergence of new adjudication rules.

### **Rule Authority and Service Function:**

Joseph Raz(1986)'s theory of authority emphasizes that the legitimacy of law lies in its 'service function'—compliance with the law helps people better achieve what they have sufficient reasons to do. According to Raz's concept of 'service-oriented authority,' legitimate authority must, on the whole, enable people to act according to correct reasons; otherwise, such authority is defective. In short, 'following the law should, in general, better enable people to act according to reason than acting on their own.'

This theory provides important insights for constructing adjudication rules in the AI era, particularly in scenarios involving AI-assisted judicial decision-making. For instance, when courts utilize risk assessment algorithms (such as COMPAS in the US or similar recidivism prediction tools) to assist in sentencing, the "authority" of such decisions is challenged by the "black box" nature of the technology. If the algorithm cannot explain its reasoning due to trade secrecy or complexity, it fails Raz's service condition: it does not help the judge or the defendant act according to "reason," but rather forces blind obedience to a statistical correlation. Therefore, newly generated AI adjudication rules must be guided by the goal of enhancing their service function. As Raz states, the legitimacy of authority lies in its superior position compared to the individual (possessing greater capacity, information, and expertise) to assist people in making correct decisions. If the law in this domain cannot outperform individual judgment in avoiding risks or correcting errors, its claim to authority lacks a normal basis for justification.

### **The Rule Structure of Legal Practice**

Neil MacCormick(1994)'s categorization of rules directly inherits and elaborates Hart's theory of "primary rules" and "secondary rules", but his distinctive approach lies in his exposition from the perspective of law as an "institutional fact" and a "practice of justification": the authority of rules originates from the community's acceptance and use of them.

In the context of AI adjudication, this is vital for the admissibility of AI-generated evidence. For example, when deepfake technology challenges the authenticity of audio-visual evidence, the "rule" for admitting such evidence cannot be static. It relies on the widespread acceptance and practice of relevant normative schemes by the legal community (legislators, judges, lawyers, and forensic experts) regarding digital watermarking or blockchain verification. Only when these verification standards are accepted as a new "institutional fact," can they function as valid rules. McCormick(2009) further emphasized the variability in the application of legal rules. The task of adjudicators is to select the most appropriate method of application based on the nature of the rule and the specific circumstances of the case. When existing rules cannot cover entirely new technological scenarios, strict application is no longer a rational choice; adjudicators need a degree of creative leeway to fill normative gaps through legal reasoning. This flexibility does not mean judges act arbitrarily; rather, they must justify the reasonableness of their discretionary outcomes through argumentative practice. Consequently, McCormick's theory reveals that the effective generation of AI adjudication rules requires not only the formal enactment of new regulations through legislation, but also the integration of practical reason. This ensures that new rules are accepted within the legal community and serve as a shared basis for reasoning. Only in this manner can AI adjudication rules truly take root in the practice of the rule of law and exert a stabilizing influence.

### **The Moral Background of Legal Principles**

Ronald Dworkin(1986) critiqued the purely rule-based model of law by emphasizing its moral foundations. He argued that law encompasses not only explicit rules but also "background rights" rooted in moral principles. In hard cases, judges frequently invoke such principles, which originate not from codified law but from the broader moral and political ideals underpinning the legal system. Dworkin rejected the strict separation of law and morality posited by legal positivists. For instance, intellectual property issues around AI-generated content engage ideals of rewarding creative labor; AI voice or face cloning implicates personal dignity and autonomy; and algorithmic governance raises concerns of procedural justice and transparency. Such values, implicit in traditional legal principles, must be reinterpreted and rebalanced in light of new technological realities. Therefore, constructing AI adjudication rules requires conscious engagement with the moral background of legal principles. We must avoid both mechanical application of outdated rules and overriding fundamental rights in the name of technical efficiency. As Dworkin insisted, the truth of legal propositions depends on political morality, not social facts alone. New AI rules should be integrated into the moral

structure of the legal order, ensuring alignment with the foundational principles of a society governed by law. Only when new rules represent the most morally appropriate extension of existing principles can they achieve public acceptance and genuine legitimacy.

### **The Comprehensive Normative View**

It is worth mentioning that Julius Stone's theory of comprehensive jurisprudence resonates with the previously discussed need for theoretical integration. He criticized legal positivism, analytical positivism, and the natural law school for their tendencies to separate the value, factual, and formal elements of law, advocating instead for a unified jurisprudence that integrates logic, justice, and social facts. Stone emphasized that legal reasoning is neither purely formal logic nor merely subjective value judgment, but an organic fusion of logical rules, social context, and moral justice(Bo 2006).

This perspective offers insightful guidance for reconstructing the normative structure of adjudication rules in the AI era: we need to balance the logical consistency of formal rules, the practical considerations of technology and social facts, and the value objectives of law (such as justice and fairness). Specifically, it is necessary both to use deductive reasoning to ensure the certainty and predictability of rule application and to address the social impacts and risks brought by AI technology, thereby maintaining the justice character of the law through value-based deliberation.

### **The Normative Logic of Judicial Adjudication Rule Reconstruction**

In summary, Hart's theory of the structure of rules provides a fundamental framework for analyzing the dilemma of AI adjudication, Raz's theory of authority emphasizes the functional requirements for the legitimacy of new rules, McCormick's theory of legal discourse highlights that the evolution of rules must be grounded in practical reason, Dworkin's theory of principles ensures that moral values are incorporated into rule-making, and Stone's integrative jurisprudence calls for the unification of logic, facts, and values. The integration of these theories in contemporary expressions indicates that the generation of generative AI adjudication rules relies on a combination of authority (legitimacy and reasons for obedience), institutionality (the practice-based foundation for rule evolution), and morality (the value orientation of rules).

### **The Principle of Adaptability in Regulatory Systems**

The tension between stability and evolution constitutes an inherent contradiction that modern rule of law must con-

front. A system relying solely on static primary rules, while formally stable, may lose its regulatory efficacy in the context of rapid social and technological evolution, becoming detached from reality. Conversely, a system subject to arbitrary change would undermine the “predictability” emphasized by Raz, thereby eroding the core virtue of the rule of law. The significance of the principle of adaptability lies precisely here: it does not encourage arbitrary legal change, but rather requires the institutionalized operation of secondary rules—particularly the effective articulation between rules and adjudicative principles—to drive structured, controlled renewal of the legal system within its principles.

Therefore, the core requirement of the rule of law lies in maintaining legal stability while rationally responding to evolving social realities. As Joseph Raz observed, the rule of law to the legal system is like sharpness to a knife—it is an essential attribute enabling law to effectively fulfill its core functions. This metaphor reveals that law is not an end in itself, but rather a tool for guiding social behavior, maintaining order, and achieving justice. The legitimacy of legal authority stems precisely from its capacity to serve as a reliable guide for conduct. As McCormick emphasized in his institutional theory, the evolution of legal rules should be grounded in practical reason and accomplished through institutionalized processes of legal discourse. The emergence of new rules is not a top-down technical command but a rational response formed by the legal community in addressing new realities. The emergence of generative artificial intelligence provides a new practical arena for this theory: as technologically generated content and decisions increasingly intervene in human social order, upholding the rule of law does not mean rigidly clinging to existing norms. Instead, it requires necessary adjustments to rules within established frameworks through procedural and argumentative means.

However, such adjustments should not degenerate into pragmatic expediency. Dworkin's theory of integrity offers a crucial warning: the legitimacy of law derives not only from functional rationality but also from its alignment with moral principles and values of justice. The design of new adjudication rules must institutionally embody respect for fairness, accountability, and human dignity, ensuring that rule updates maintain equilibrium between technical rationality and moral rationality. In this sense, reconstructing adjudication rules does not constitute a departure from the rule of law principle but rather its necessary extension into the digital age. It precisely reflects the spirit of integrative jurisprudence advocated by Julius Stone—achieving a new balance among the logical structure of law, social facts, and value concepts. Legal logic must evolve alongside technological progress, societal changes should enter the legal system through institutionalized pathways, and the entire process must be guided by the values of justice and fairness. Only thus can the rule of law maintain its enduring vitality,

practical efficacy, and ultimate authority amidst the transformative forces unleashed by generative artificial intelligence.

Taking AI-assisted sentencing as a case study: The legal system must adapt to the “social fact” (Stone) that algorithms can process criminal data faster than humans. However, adaptability does not mean uncritical acceptance. Applying Raz, if the AI system (e.g., a recidivism predictor) is opaque, it cannot provide “exclusionary reasons” for the judge's decision. Therefore, the “adaptive” rule must be a secondary rule of procedure: No algorithmic output may be used as the sole basis for detention unless its logic is explainable. This rule adapts to technology while preserving the “service function” of judicial authority.

## **Standardization and Systematization of Judicial Rules**

New AI adjudication rules should feature standardized and systematized structures to ensure legal predictability and social stability (Re 2019). This demand for rule standardization directly addresses the dilemma revealed by Hart: establishing clear secondary rules for adjudicating AI disputes to overcome potential uncertainties in the primary rule system. Consider the standardization of AI-generated evidence. Currently, judges rely on subjective discretion regarding deepfakes. A standardized rule structure would establish a “Rule of Recognition” (Hart) for digital evidence—for instance, requiring cryptographic signatures for admissibility. As McCormick observes, this process of collective expectation formation exemplifies law as an “institutional fact.” When the legal community agrees that “Evidence X requires Certification Y,” this institutional fact reduces uncertainty. Legislation clarifying the legal status, rights attribution, and liability for infringement of AI-generated content enables individuals to clearly identify their rights and obligations during use and creation, thereby reducing transactional and compliance risks stemming from legal uncertainty (Xu 2024).

However, such standardization must never be a purely mechanical operation. It must be guided by Dworkin's concept of “integrality,” ensuring that the clarity and certainty of rules do not become detached from the value structure of the legal system. In other words, the standardization of rules should be one of “principle coherence”—pursuing logical consistency while ensuring that new rules and the existing legal landscape together form a harmonious, coherent, and morally legitimate whole. At the judicial level, unified adjudication standards help prevent significant divergences among different regions and courts when handling similar AI disputes. Ultimately, this approach resonates with Julius Stone's call for legal integration: standardized rules provide essential logic and predictability, while their grounding in

practical reason and value principles ensures they can continually respond to new facts and challenges arising from technological change.

### Human Rights-Oriented Principles in Judicial Rule Construction

The reconstruction of intelligent adjudication rules necessitates the deep integration of human rights protection and technological governance, infusing the humanistic concern of the rule of law into the AI governance system. The ethical foundation of this requirement traces back to Ronald Dworkin's "right proposition" theory. Dworkin asserts that the validity of any legal proposition hinges on whether it best embodies the moral principles and values of justice recognized by the social community.

In the context of AI personality rights (e.g., voice cloning), a purely utilitarian rule might permit unauthorized cloning if it benefits the economy. However, Dworkin's "rights as trumps" argument prevents this. The legal system must recognize that the "background right" to personal dignity includes the integrity of one's biometric data. Therefore, in designing AI decision-making rules, law must adopt the rights proposition as its value coordinate. This integration not only responds to the ethical dimension of law but also constitutes a functional requirement for maintaining the authority of the rule of law.

### Reconstructing Judicial Adjudication Rules in the Context of Cyber Information Law

Based on the above theoretical analysis, it is necessary to start from the structure of legal rules and systematically reconstruct the system of judicial rules related to generative AI. This reconstruction is not merely a list of policies, but a contemporary practice of the integrated jurisprudence of Hart, Raz, MacCormick, and Stone.

#### Establishment of a Legally Recognized Mechanism

To address Hart's "uncertainty," we must establish clear "recognition criteria" for AI legal rules. Through legislation or authoritative judicial interpretations, the law must define the boundaries of "works" and "evidence."

- **Copyright and Authorship:** In copyright law, explicitly stipulate that AI-generated content meeting originality requirements may be recognized as works only when human dominance is proven. This aligns with the "institutional fact" (MacCormick) that copyright is a reward for human agency.

- **Personality Rights:** Supplement and refine provisions on the scope of legal protection, encompassing new objects such as virtual avatars and synthesized voices.

- **Liability:** In product liability and tort law, clarify the legal status of generative AI product/service providers. At the same time, the legislative process must fully incorporate judicial practice experience and academic research findings (Yang 2025). For instance, the "human-centered" principle developed in China's judicial practice acts as a proto-rule of recognition, clarifying humanity's leading role in the creative process.

### Establishing a Flexible and Efficient Rule Update Mechanism

To address Hart's "stasis," we must leverage MacCormick's insight that law is a dynamic practice.

- **Administrative Agency Authority:** Granting administrative agencies the authority to promptly issue guiding norms helps overcome legislative lag. Leveraging their policy coordination capabilities, they can formulate practical regulatory solutions (e.g., the Interim Measures for the Administration of Generative AI Services). This reflects Raz's view that authority should possess superior expertise to serve the subjects of law.

- **Judicial Precedent Guidance:** Regular publication of key rulings on typical AI cases by the highest judicial authorities establishes uniform judicial standards. For instance, the Beijing Internet Court has pioneered judicial review by addressing new rights recognition issues. This transforms specific "discursive practices" (MacCormick) into generalizable rules.

- **Judicial Interpretations:** These can swiftly address novel legal issues without altering the legal text itself, combining flexibility with authority (Zhang, Zhou, and Liu 2025).

Standardization of Judicial Rules, Technical Rationality, and Acceptability (Raz's Service & Stone's Integration) To address Hart's "inefficiency," the adjudication process itself must be reconstructed to satisfy Raz's condition of legitimacy and Stone's call for comprehensive integration.

- **Enhancing Technical Rationality (The Razian Requirement):** AI cases involve complex algorithmic models. If judges rely on "black box" data, they cannot provide

valid reasons for their rulings. Therefore, introducing independent technical investigators or expert assistants is not just a procedural convenience; it is a condition for the legitimacy of judicial authority. Strictly reviewing the reliability of evidence involving algorithm evaluations ensures that judicial independence is not supplanted by technical authority (Zhang 2024).

- **Ensuring Acceptability (The Dworkinian Requirement):** Courts should provide thorough explanations in their rulings regarding the legal basis and value considerations. When applying new regulations to AI, detailed justification (reasoning from principles) is required.

- **Platform Accountability:** In scenarios involving public trust—such as disputes where platforms erroneously classify content as “AI-generated”—platforms must provide reasonable explanations (algorithmic transparency). This requirement forces technical power to submit to the “service function” of the rule of law.

Through these measures, we form a reflexive legal norm system: the law can self-adjust based on technological feedback (MacCormick’s practice), maintain logical structure (Hart’s rules), and uphold justice (Dworkin’s integrity).

### **Standardization of Judicial Rules, Technical Rationality, and Acceptability**

To ensure judicial rulings in artificial intelligence cases are both scientifically sound and publicly credible, it is imperative to standardize and institutionalize the adjudication process and criteria. On one hand, the technical rationality of decision-making must be strengthened. AI cases typically involve highly complex issues such as algorithmic models and data processing workflows, which often exceed judges’ general knowledge. If judges rely solely on partial evidence provided by parties, factual determinations are highly susceptible to bias. Introducing independent technical investigators or expert assistants can provide judges with objective technical explanations and professional assessments, helping them achieve a reasonable interpretation of technical facts during adjudication. Strictly reviewing the reliability of evidence involving algorithm evaluations and data analysis enables judges to maintain legal rationality when confronting technical facts, avoiding blind trust in “black box” algorithm conclusions and ensuring judicial independence is

not supplanted by technical authority (Zhang 2024). Promoting judges’ training in fundamental AI principles and case studies enhances judicial personnel’s technical literacy. This enables judges to accurately identify technical risks during adjudication, organize evidentiary chains, and appropriately utilize expert opinions.

On the other hand, emphasis should be placed on the acceptability of judicial conclusions. Courts should provide thorough explanations in their rulings regarding the legal basis and reasoning process applied when addressing novel AI issues, clearly articulating discretionary standards and value considerations. Particularly when applying new regulations lacking explicit statutory provisions, detailed justification of the legal basis must be provided (e.g., which principles, doctrines, or international precedents were referenced). Furthermore, in scenarios involving public trust—such as disputes arising when content platforms erroneously classify user-generated content as “AI-generated” and impose penalties accordingly—platforms as algorithmic controllers must provide reasonable explanations for their automated review conclusions when users cannot furnish evidence of human creation (e.g., original drafts). Otherwise, such actions lack factual basis, and the platform shall bear liability for breach of contract.

Through the above restructuring measures, it is expected to form a reflexive legal norm system: the law can self-adjust and self-improve based on technological and social feedback, achieving a dynamic balance of rules. This generative AI adjudication rule structure will be based on clearly acknowledged rules, supported by flexible transformation mechanisms, and safeguarded by reasonable and fair adjudication standards, thereby comprehensively enhancing the adaptability and guiding capacity of cyber information law to digital technological innovation.

### **Conclusion**

The rapid advancement of generative artificial intelligence is challenging the framework of existing legal systems and the cognitive foundations of judicial adjudication. This paper began with Hart’s theory of rules to reveal the normative dilemma faced by current legal systems. Drawing on Raz’s theory of authority and MacCormick’s institutional rationality, it elucidated the functional logic for rule reconstruction. Further supported by Dworkin’s moral theory and Stone’s integrative jurisprudence, it argued that new adjudication rules should center on human rights protection and moral values.

This constructs a three-dimensional logic for reconstructing generative AI adjudication rules: maintaining stability through adaptability, ensuring rationality through standardization, and realizing the humanistic return of the rule of

law through human rights orientation. By applying these theories to concrete scenarios—such as the transparency requirements for AI sentencing aids and the recognition rules for digital evidence—we demonstrate that true modernization of the rule of law should not passively respond to societal issues but proactively guide technological development through normative rationality and humanistic concern.

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