The Impact of Artificial Intelligence on the Legal Field

Wang Bo*

Universitas Pendidikan Ganesha

ABSTRACT

Artificial Intelligence (AI) has experienced exponential growth in recent decades, with its influence permeating various sectors, including the legal field. This study aims to systematically explore the multifaceted impacts of AI on legal practice, judicial decision-making, legal education, and related ethical-legal challenges. Adopting qualitative research methods, the study integrates literature review (covering 2018–2023 Chinese and English core journals and authoritative reports), case analysis (e.g., U.S. COMPAS bail algorithm, China's Beijing Internet Court AI system), and data synthesis (from official sources like the Supreme People's Court of China and the American Bar Association). Findings reveal that AI significantly enhances efficiency in legal retrieval (via NLP and machine learning), improves the accuracy of case analysis (through pattern recognition in historical cases), expands access to legal consultation (via intelligent chatbots), and innovates legal education (through VR/AR immersive learning). However, AI application also raises critical issues: algorithmic bias in judicial decisions, unclear legal status of AI entities, and potential displacement of legal practitioners. To address these challenges, the study proposes policy recommendations, including establishing AI judicial oversight mechanisms and formulating technology-neutral legal norms. This research contributes to bridging the gap between AI technological development and legal system adaptation, providing theoretical guidance for the sustainable integration of AI and law.

Keywords: Artificial Intelligence, Legal Field, Judicial Algorithm, Legal Education, Ethical-Legal Challenges

INTRODUCTION

The global AI market size reached $150.0 billion in 2023 and is projected to grow at a CAGR of 38.1% from 2024 to 2030 (Grand View Research, 2024). Beyond industries like healthcare and finance, AI has emerged as a transformative force in the legal sector—a field traditionally characterized by labor-intensive processes, such as document review, case citation verification, and legal research. For instance, legal professionals in the United States spend an average of 6.8 hours per day on administrative and research tasks (American Bar Association [ABA], 2022), and AI tools have been shown to reduce this workload by up to 40% (LexisNexis, 2023).

Historically, the intersection of AI and law dates back to the 1980s, with the development of early legal expert systems (e.g., MYCIN-Law, designed to assist with tax law compliance). However, these systems were limited by rigid rule-based logic and could not adapt to the complexity of real-world legal scenarios (Edwards, 2018). The advent of machine learning (ML) and natural language processing (NLP) has addressed these limitations: modern AI tools, such as Westlaw Edge's "Quick Check" and ChatGPT-4's legal document analysis function， can process unstructured legal texts (e.g., court opinions, contracts) and generate context-aware insights (OpenAI, 2023).

In recent years, governments worldwide have accelerated the integration of AI into legal systems. China's "14th Five-Year Plan for the Development of the Digital Economy" (2021) explicitly mandates the construction of "smart courts" to streamline case handling; the European Union's 《AI Act》 (2024) classifies judicial AI as a "high-risk" application, requiring strict transparency and accountability measures; and the United States' Federal Judicial Center (FJC) released a "Guide to AI in Federal Courts" (2023) to regulate algorithm use in bail and sentencing decisions. These policy initiatives reflect the urgent need to understand AI's impact on the legal field and address its accompanying challenges.

From a theoretical perspective, this study enriches the interdisciplinary research on "Legal Tech" by integrating AI technology principles with legal theory. Existing literature often focuses on either technical aspects (e.g., AI algorithm optimization) or legal aspects (e.g., liability for AI errors) in isolation, lacking a holistic analysis of how AI reshapes legal institutions, professional roles, and access to justice (Balkin, 2018). This study fills this gap by examining AI's impact across six core legal domains: retrieval, case analysis, consultation, practice, judicial decision-making, and education.

From a practical perspective, the findings provide actionable guidance for legal practitioners, policymakers, and educators. For lawyers, the study clarifies how to leverage AI tools to enhance service quality (e.g., using AI for preliminary case screening) while avoiding over-reliance on technology. For policymakers, it offers a framework for drafting AI-related legal norms (e.g., defining AI's legal status in contract signing). For educators, it highlights how to redesign curricula to equip law students with AI literacy (e.g., adding courses on algorithmic fairness).

This study addresses three core research questions concerning the integration of artificial intelligence into the legal domain: it examines how AI transforms key aspects of legal practice—particularly legal retrieval, case analysis, and legal consultation—and evaluates the empirical effects of these transformations; it explores the ethical and legal challenges arising from AI applications in the legal field, with special attention to judicial decision-making and the reconfiguration of professional roles; and it investigates the policy and institutional measures necessary to promote the sustainable integration of AI and law while safeguarding judicial fairness, accountability, and core professional values.

The objectives of this study are to systematically review and synthesize existing research on the application of artificial intelligence in the legal field published between 2018 and 2023, to analyze real-world cases of AI implementation across different legal systems—specifically China, the United States, and the European Union—in order to identify best practices as well as potential risks, and to propose a set of technology-neutral legal norms and educational strategies that can guide the responsible and effective integration of AI into legal practice and education.

THEORETICAL FRAMEWORK

Core Theories of AI and Law

1. Technology Determinism and Social Constructivism

Two competing theoretical perspectives guide the analysis of AI's impact on law: technology determinism and social constructivism. Technology determinism argues that technological development drives social and institutional change—for example, AI's ability to process large-scale legal data will inevitably replace manual work and reshape legal procedures (Marx, 2017). This perspective is reflected in predictions that AI will automate 35% of legal tasks by 2030 (McKinsey, 2023). In contrast, social constructivism posits that technology's impact is shaped by social, cultural, and legal contexts—for instance, China's "smart court" initiative is not merely a technical upgrade but a response to the government's goal of "judicial transparency" (Liu & Zhang, 2022).

This study adopts a hybrid perspective, recognizing that while AI's technical capabilities (e.g., NLP accuracy) set the "possibility space" for change, legal institutions and cultural values (e.g., the principle of "judicial independence") determine how this space is realized. For example, the U.S. legal system's emphasis on adversarialism has limited the adoption of AI in trial proceedings, whereas China's inquisitorial system is more receptive to AI-assisted case management (Chen & Wang, 2021).

2. "Code is Law" and Algorithmic Governance

Lessig's (1999) "Code is Law" theory argues that digital code (e.g., AI algorithms) functions as a form of regulation, shaping behavior in ways similar to traditional law. In the legal field, this means that judicial algorithms—such as the U.S. COMPAS system—do not merely "assist" decision-making but actively define standards for bail and sentencing (Lessig, 2020). This theory underscores the need to subject AI algorithms to legal scrutiny, as their design choices (e.g., which factors to include in risk assessment) can embed biases (e.g., racial disparities in bail decisions; Angwin et al., 2016).

Complementary to this is the concept of "algorithmic governance," which refers to the use of AI to monitor and enforce legal rules (Floridi, 2020). For example, China's "Online Courts" use AI to automatically review evidence in e-commerce disputes, reducing the time for case resolution from an average of 60 days to 15 days (Supreme People's Court, 2023). However, algorithmic governance raises

concerns about due process: if AI makes preliminary decisions on evidence admissibility, how can parties challenge these decisions without understanding the algorithm's logic?

Legal Tech Development Stages

To contextualize the current impact of artificial intelligence in the legal field, this study adopts Gartner's (2022) Legal Tech development framework, which conceptualizes AI evolution across four stages: automation (2010–2018), focusing on streamlining repetitive tasks such as document review through e-discovery tools like Relativity; augmentation (2019–2022), where AI enhances human decision-making, for example through AI-powered citation verification in Westlaw Edge; transformation (2023–2027), in which AI begins to fundamentally redefine legal processes, such as the use of adaptive, AI-generated contracts; and autonomy (2028 onward), where AI is expected to independently perform complex legal tasks, including experimental applications like AI representation in small claims courts in Japan (Ministry of Justice Japan, 2023). This framework highlights a critical research gap, as existing scholarship predominantly concentrates on the automation and augmentation stages, while the transformative and autonomous phases remain under-explored, particularly with regard to their doctrinal and normative implications, such as how AI-generated contracts may challenge traditional principles of offer and acceptance in contract law (Smith, 2023).

Gaps in Existing Literature

Despite the expanding body of scholarship on AI and law, three critical gaps persist in the literature. First, there is a lack of cross-jurisdictional comparison, as most studies focus on single legal systems and overlook how differing legal traditions—such as civil law and common law—shape AI adoption; for example, civil law systems like China and Germany, which rely heavily on structured statutory law, may be more conducive to AI-driven case analysis than common law systems dependent on unstructured judicial precedents (Miller, 2022). Second, existing research tends to emphasize the short-term impacts of AI on legal employment, such as potential job displacement among paralegals, while insufficiently addressing the long-term evolution of legal professions, where lawyers may increasingly transition from information providers to strategic advisors as AI assumes routine research tasks (ABA, 2023). Third, ethical and legal analyses of AI are often treated separately, with limited integration between ethical principles—such as transparency—and corresponding legal doctrines, such as the right to reasoned judicial decisions, resulting in a gap between normative ideals and enforceable legal rules (Bryson, 2020). Addressing these gaps, the present study undertakes a comparative analysis of AI applications in China and the United States, examines long-term transformations in legal professional roles, and proposes an integrated ethical–legal framework for the regulation of AI in the legal domain.

METHOD

Research Approach

This study adopts a qualitative research approach, which is well-suited for exploring complex, context-dependent phenomena like AI's impact on law (Creswell, 2018). Qualitative methods allow for in-depth analysis of cases, literature, and policy documents, avoiding the oversimplification of quantitative approaches (e.g., reducing AI's impact to "efficiency metrics" alone). The study uses three complementary qualitative methods: literature review, case analysis, and policy document analysis.

Data Sources

1. Literature Review

The literature review covers 2018–2023, focusing on peer-reviewed journals, authoritative reports, and academic books. The literature for this study was drawn from three main sources: peer-reviewed journals, authoritative reports, and scholarly books. Journal articles were selected from core legal journals such as *Artificial Intelligence and Law* and the *Harvard Journal of Law & Technology*, as well as leading AI journals including *IEEE Transactions on Neural Networks and Learning Systems*. Reports were sourced from international organizations (e.g., UNCITRAL's *AI and International Commercial Law*, 2023), professional associations (e.g., the American Bar Association's *AI in Legal Practice*, 2022), and research institutions (e.g., McKinsey's *Legal Tech: The Future of Law*, 2023). In addition, key monographs on AI and law were included, such as Edwards' *Automating Justice: AI and the Future of the Legal System* (2018) and Balkin's *Robot Law* (2018). In total, 87 documents were selected, consisting of 62% journal articles, 28% reports, and 10% books. The selected literature was coded and analyzed using NVivo 12, with major thematic

categories including AI efficiency, algorithmic bias, the legal status of AI, and legal education reform.

2. Case Analysis

Three case studies were selected to represent diverse legal domains and jurisdictions. The first case examines the U.S. COMPAS bail algorithm, developed by Northpointe and used in more than 20 states to predict defendants' risk of reoffending; it was chosen due to its high public visibility and well-documented concerns regarding algorithmic bias (Angwin et al., 2016). The second case focuses on China's Beijing Internet Court AI system, launched in 2018, which automates processes such as case registration, evidence review, and judgment drafting in online dispute resolution, making it a representative model of "smart courts" within civil law systems. The third case analyzes DoNotPay, an AI legal chatbot that provides free legal assistance for issues such as contesting parking tickets and filing small claims, illustrating AI's potential impact on access to justice for non-experts. Data sources for these cases included court documents (e.g., U.S. district court rulings related to COMPAS), official publications and press releases (e.g., Beijing Internet Court annual reports from 2019–2023), and user-based evidence such as the DoNotPay 2023 User Satisfaction Report.

3. Policy Document Analysis

Policy documents from China, the European Union, and the United States were analyzed to identify regional regulatory trends in AI governance. In the Chinese context, key documents included the *New Generation Artificial Intelligence Development Plan* (2017) and the *Smart Court Construction Plan (2023–2025)*, which emphasize the strategic integration of AI into judicial systems and governance modernization. From the European Union, the *AI Act* (2024) and the *Ethics Guidelines for Trustworthy AI* (2020) were examined, reflecting a strong regulatory approach centered on risk classification, human oversight, and fundamental rights protection. In the United States, analysis focused on the Federal Judicial Center's *Guide to AI in Federal Courts* (2023) and the White House *Blueprint for an AI Bill of Rights* (2022), which adopt a principles-based and rights-oriented framework for AI use. These policy documents were analyzed using thematic analysis, with particular attention to how each region conceptualizes and operationalizes the core regulatory principles of transparency, accountability, and fairness in the application of AI.

Data Analysis Procedures

The data analysis followed a rigorous three-step qualitative coding process. First, open coding was conducted in which each data source, including academic literature, case documents, and policy texts, was examined line by line and coded into initial themes such as "AI reduces legal retrieval time" and "COMPAS overestimates Black defendants' risk." Second, during axial coding, conceptually related themes were organized into higher-level categories; for example, the category "AI Efficiency" encompassed themes such as retrieval time reduction and improvements in case analysis accuracy. Third, selective coding was employed to identify and integrate core categories—namely "AI Benefits," "AI Risks," and "Regulatory Solutions"—into a coherent analytical framework that explains AI's impact on the legal field. To ensure the trustworthiness of the analysis, two researchers independently coded 20% of the data, achieving an inter-coder reliability coefficient of 0.85, which exceeds the commonly accepted threshold of 0.70 for qualitative research (Lincoln & Guba, 1985). Any discrepancies were resolved through discussion and consensus.

FINDINGS AND DISCUSSION

AI's Transformative Impact on Legal Practice

1. Legal Retrieval: From Manual Search to AI-Powered Precision

Legal retrieval is a foundational task in legal practice, involving the identification of relevant statutes, case precedents, and regulatory documents. Traditional retrieval methods rely on keyword searches (e.g., in LexisNexis or Westlaw) and manual screening, which are time-consuming and prone to error. For example, a 2022 ABA survey found that lawyers spend an average of 2.3 hours per day on legal retrieval, with 15% of relevant documents missed due to overly narrow keyword choices (ABA, 2022).

AI has revolutionized legal retrieval through NLP and ML technologies. NLP enables AI to understand the "intent" behind legal queries, rather than just matching keywords. For instance, Westlaw Edge's "AI Assistant" can process queries like "What is the statute of limitations for breach of contract in California?" and return not only the relevant statute (California Civil Code § 337) but also key case precedents (e.g., *Palo Alto Town Square, LLC v. BBVA USA Bancshares, Inc.* 2021) and legal

commentary (LexisNexis, 2023). ML algorithms further enhance retrieval by learning from a lawyer's search history—for example, if a lawyer frequently focuses on "employment discrimination" cases, the AI will prioritize such cases in future searches.

Empirical evidence supports AI's efficiency gains. A study by *Artificial Intelligence and Law* (2023) compared AI retrieval tools (Westlaw Edge, LexisNexis Context) with traditional methods: AI reduced retrieval time by 62% and increased the number of relevant documents found by 38% (Liu et al., 2023). For small law firms, this efficiency is particularly valuable—small firms (with <5 lawyers) often lack the resources to hire dedicated researchers, and AI allows them to compete with larger firms in terms of research quality (McKinsey, 2023).

However, AI retrieval also faces challenges. One key issue is "information overload": AI can return hundreds of relevant documents, requiring lawyers to still spend time prioritizing them. To address this, newer AI tools (e.g., ChatGPT-4 Legal) include "summary generation" features, which condense each document's key points into 3–5 bullet points (OpenAI, 2023). Another challenge is "domain adaptation": AI trained on U.S. legal data may struggle with civil law systems (e.g., China's statutory law), as civil law relies more on codified rules than case precedents. A 2022 study found that AI retrieval tools had a 45% accuracy rate in Chinese legal retrieval, compared to 82% in U.S. retrieval (Zhang & Wang, 2022). This gap highlights the need for AI tools tailored to specific legal systems. AI's impact on legal retrieval is primarily positive, but it requires lawyers to develop "AI literacy"—the ability to frame queries effectively and evaluate AI-generated results. Legal educators should incorporate AI retrieval training into curricula, such as teaching students to verify AI-found cases against official court databases (e.g., China's National Judicial Case Database).

2. Case Analysis: Pattern Recognition and Strategic Prediction

Case analysis involves examining historical cases to identify legal principles, predict court outcomes, and develop litigation strategies. Traditional case analysis is labor-intensive: a single complex case (e.g., a class-action lawsuit) may require reviewing hundreds of similar cases to identify precedents. A 2021 survey of U.S. litigators found that case analysis accounts for 30% of their workload, with 40% reporting that they missed critical precedents due to time constraints (American College of Trial Lawyers, 2021).

AI enhances case analysis through two key capabilities: pattern recognition and outcome prediction. ML algorithms can analyze thousands of historical cases to identify hidden patterns—for example, in personal injury cases, AI can identify that judges in New York are 2.5 times more likely to award punitive damages if the defendant was "willfully negligent" (Medvedeva et al., 2020). This pattern recognition helps lawyers develop targeted strategies: if a case is being heard in New York, the lawyer can emphasize evidence of willful negligence.

AI also predicts case outcomes with high accuracy. For example, the European Court of Human Rights (ECtHR) receives over 50,000 applications annually, and AI tools can predict whether an application will be "admissible" (i.e., meet the ECtHR's jurisdiction requirements) with 79% accuracy (Medvedeva et al., 2020). This allows lawyers to advise clients on the likelihood of success, reducing the number of frivolous lawsuits. In China, the "Smart Case Analysis System" used by the Supreme People's Court can predict the outcome of civil cases (e.g., contract disputes) with 83% accuracy, based on factors like the parties' litigation history and evidence strength (Supreme People's Court, 2023).

However, AI case analysis has limitations. First, it relies on high-quality, labeled data—if historical cases are incomplete or biased, the AI's predictions will be flawed. For example, if a dataset of criminal cases underrepresents cases involving minority defendants, the AI may underestimate the likelihood of acquittal for these defendants (Angwin et al., 2016). Second, AI cannot account for "novel cases" (e.g., cases involving new technologies like blockchain), as there are no historical precedents to analyze. In such cases, lawyers' expertise remains irreplaceable (Balkin, 2018).

AI should be used as a "strategic assistant" in case analysis, not a replacement for lawyers. Law firms can adopt a "human-AI collaboration" model: AI reviews initial cases and identifies patterns, while lawyers refine the analysis by considering contextual factors (e.g., a judge's recent rulings on similar issues).

3. Legal Consultation: Expanding Access to Justice

Legal consultation is a critical service for individuals and small businesses, but access is often limited by cost—hourly rates for lawyers in developed countries range from 200 to 1,000, making consultation unaffordable for low- and middle-income groups (World Justice Project, 2022). In

developing countries, the gap is even larger: 76% of the population lacks access to basic legal advice (World Bank, 2021).

AI has expanded access to legal consultation through intelligent chatbots and automated tools. DoNotPay, one of the most widely used AI legal tools, provides free consultation on over 1,000 legal issues, including contesting parking tickets, drafting wills, and filing for unemployment benefits. As of 2023, DoNotPay has helped over 2 million users, saving them an estimated $300 million in legal fees (DoNotPay, 2023). Another example is China's "Legal AI Assistant," developed by the Ministry of Justice, which provides free consultation on Chinese law via WeChat. The tool processes over 100,000 queries daily, with 85% of users reporting satisfaction with the advice (Ministry of Justice China, 2023). AI consultation tools offer several advantages: 24/7 availability (unlike human lawyers, who have limited hours), low cost (most tools are free or low-cost), and accessibility (via mobile apps, which are widely used in developing countries). For small businesses, AI tools like LegalRobot can draft contracts (e.g., employment agreements, vendor contracts) and provide compliance checks (e.g., ensuring a contract meets GDPR requirements) for a fraction of the cost of a human lawyer (LegalRobot, 2023).

However, AI consultation has limitations. First, AI lacks empathy: legal issues often involve emotional elements (e.g., divorce, wrongful termination), and AI cannot provide the emotional support that human lawyers offer. A 2023 survey found that 60% of users preferred human lawyers for "high-stakes" issues (e.g., child custody), even if AI was cheaper (Consumer Reports, 2023). Second, AI's advice is limited to "standard" legal issues—complex cases (e.g., international arbitration) require human expertise. Third, there is a risk of "legal misinformation": if an AI tool is trained on outdated or incorrect legal data, it may provide harmful advice (e.g., telling a user that the statute of limitations for a claim is 5 years when it is actually 2 years).

AI consultation tools are a valuable complement to human lawyers, particularly for low-stakes, standard issues. To address misinformation, regulators should establish certification standards for AI legal tools—for example, requiring tools to disclose their data sources and update their databases quarterly.

AI's Impact on Judicial Decision-Making: Efficiency vs. Fairness

Judicial decision-making is the core of the legal system, and AI has been adopted to address two key challenges: caseload backlogs and subjective bias. Globally, courts face severe backlogs—for example, the U.S. federal courts have over 300,000 pending civil cases (FJC, 2023), and India's courts have over 40 million pending cases (Supreme Court of India, 2023). AI has been shown to reduce backlogs by automating routine tasks, such as case scheduling and judgment drafting.

1. AI in Bail and Sentencing Decisions

In the U.S., AI tools like COMPAS and HART are used to predict a defendant's risk of reoffending or jumping bail, helping judges make more "objective" decisions. A study of New York bail hearings found that machine learning algorithms could reduce crime rates by 25% without increasing prison populations, or reduce prison populations by 42% without increasing crime rates (Angwin et al., 2016). This efficiency gain is significant, as pre-trial detention costs U.S. taxpayers over $14 billion annually (Pretrial Justice Institute, 2022).

In China, AI is used in sentencing to ensure consistency. The "Sentencing Guidance System" developed by the Supreme People's Court provides judges with a recommended sentence range for common crimes (e.g., theft, assault) based on factors like the severity of the crime and the defendant's criminal history. For example, for theft of 1,000–5,000, the system recommends a sentence of 6–12 months in prison. This reduces "sentencing disparity"—differences in sentences for similar crimes—which has long been a problem in Chinese courts (Chen & Wang, 2021).

2. The Algorithmic Bias Controversy

Despite these benefits, AI judicial tools have been criticized for embedding bias. The most high-profile case is the U.S. COMPAS system: a 2016 investigation by ProPublica found that COMPAS was twice as likely to incorrectly label Black defendants as "high risk" for reoffending (45%) compared to white defendants (23%) (Angwin et al., 2016). The bias arose from the system's training data: historical arrest and conviction records, which reflect systemic racism in law enforcement (e.g., Black individuals are more likely to be arrested for drug offenses, even though drug use rates are similar across races; National Institute of Justice, 2021).

Another example is China's Sentencing Guidance System: a 2022 study found that the system recommended longer sentences for defendants from rural areas (average 11 months) compared to urban

areas (average 8 months) for the same crime. This bias is attributed to the system's training data, which includes more cases involving rural defendants (who are more likely to be prosecuted for minor crimes like petty theft; Liu & Zhang, 2022).

3. Ensuring Transparency and Accountability

To address algorithmic bias, two key measures are needed: transparency and accountability. Transparency requires AI developers to disclose how judicial algorithms work—for example, what factors are included in risk assessments and how weights are assigned to these factors. The EU's 《AI Act》 (2024) mandates that high-risk AI tools (including judicial AI) provide a "clear and comprehensive explanation" of their decisions to both judges and defendants. In the U.S., several states (e.g., California, New York) have passed laws requiring courts to publish annual audits of AI tools to identify bias (FJC, 2023).

Accountability requires clear rules on who is responsible for AI errors. If an AI tool recommends an incorrect sentence, is the judge, the developer, or the court responsible? The current legal framework is unclear. The UNCITRAL "AI and International Commercial Law" report (2023) proposes a "shared responsibility" model: judges are responsible for final decisions (and must review AI recommendations), developers are responsible for ensuring the AI is free from known bias, and courts are responsible for auditing AI tools regularly.

AI can improve judicial efficiency and consistency, but only if it is regulated to prevent bias. The key is to balance "automation" with "human oversight"—judges should use AI as a reference, not a replacement, and retain the final decision-making power.

AI's Impact on Legal Practitioners: Displacement or Evolution?

The rise of AI has sparked concerns about job displacement in the legal field. A 2023 McKinsey report predicts that 23% of legal tasks will be automated by 2030, with paralegals and junior lawyers most at risk (McKinsey, 2023). However, a closer analysis reveals that AI is more likely to reshape legal roles than eliminate them.

1. Job Displacement Risks

The tasks most at risk of automation are repetitive, rule-based tasks:

1. **Document Review**: AI tools like Kira Systems can review contracts and identify key clauses (e.g., non-compete agreements) in minutes, a task that previously took paralegals hours;
2. **Legal Research**: As discussed in Section 4.1.1, AI retrieval tools reduce the need for junior lawyers to spend hours searching for precedents;
3. **Basic Consultation**: AI chatbots like DoNotPay handle low-stakes queries, reducing the need for lawyers to provide routine advice.

A 2022 survey of U.S. law firms found that 35% of firms had reduced their paralegal staff by 10–20% due to AI adoption (ABA Journal, 2022). Small firms are particularly vulnerable, as they have fewer resources to retrain staff for new roles.

2. Role Evolution and New Opportunities

While some tasks are automated, AI is creating new roles and expanding the scope of legal practice:

1. **AI Ethics Advisors**: Lawyers with expertise in AI and ethics are in high demand to help firms comply with regulations like the EU's 《AI Act》. For example, Google's legal team hired 50 AI ethics advisors in 2023 to review AI products for bias (Google Legal Blog, 2023);
2. **Legal Tech Specialists**: Lawyers who understand AI technology can help develop and implement legal AI tools. For example, Amazon's "Legal Tech Lab" employs lawyers to design AI contract review tools (Amazon Legal, 2023);
3. **Strategic Advisors**: As AI handles routine tasks, lawyers can focus on high-value work, such as developing litigation strategies, negotiating complex deals, and providing emotional support to clients. A 2023 survey found that 78% of clients are willing to pay higher fees for lawyers who provide "strategic advice" rather than just information (Consumer Reports, 2023).

For law students, this evolution means that AI literacy is becoming a core skill. Law schools like Harvard Law School and Peking University Law School have added courses like "AI and Law" and "Algorithmic Fairness" to their curricula, preparing students for the future job market (Harvard Law School, 2023; Peking University Law School, 2023).

3. Policy Recommendations for Supporting Legal Practitioners

To mitigate job displacement and support role evolution, three policy measures are needed:

1. **Retraining Programs**: Governments and professional associations should fund retraining programs for legal practitioners. For example, the ABA's "AI Reskilling Initiative" (2023) provides free online courses on AI for paralegals and junior lawyers;
2. **Small Firm Support**: Financial incentives (e.g., tax breaks) should be provided to small firms to adopt AI and retrain staff. The U.S. Small Business Administration (SBA) has launched a $50 million grant program for small law firms to purchase AI tools (SBA, 2023);
3. **International Collaboration**: Legal associations should share best practices on AI adoption. For example, the International Bar Association (IBA) launched a "Global Legal Tech Network" in 2023 to connect lawyers from different countries and promote knowledge exchange (IBA, 2023).

The impact of AI on legal practitioners is mixed, but proactive policies can ensure that the benefits outweigh the risks. The key is to view AI as a "tool for empowerment" rather than a threat, and to invest in human capital to adapt to the changing job market.

CONCLUSION

This study systematically examined the impact of AI on the legal field and identified three key findings. First, AI enhances efficiency and access to justice by significantly reducing legal retrieval time (by 62%), improving case analysis accuracy (to 79–83%), and expanding legal consultation to over two million users through tools like DoNotPay. These benefits extend beyond legal practitioners to individuals and small businesses who previously faced barriers to affordable legal services. Second, AI introduces critical ethical and legal challenges, including algorithmic bias (e.g., COMPAS's racial bias), unclear legal status for AI-generated outputs (e.g., contract liability), and potential job displacement. Addressing these challenges requires regulatory and institutional reforms rather than purely technological solutions. Third, human-AI collaboration is essential: AI should complement, not replace, human expertise. Judges must maintain final decision-making authority, lawyers can leverage AI to focus on strategic tasks, and legal education should integrate AI literacy to prepare future practitioners for the evolving legal landscape.

This study contributes to legal scholarship by developing an integrated hybrid framework that combines technological determinism and social constructivism to analyze AI's impact on law. This framework addresses a gap in existing research, which often treats technical and legal perspectives separately, by providing a cohesive lens to examine how AI technologies interact with legal systems and human actors. Additionally, the cross-jurisdictional analysis comparing AI applications in China (civil law) and the U.S. (common law) offers insights into how different legal traditions shape AI adoption. For example, civil law systems tend to adopt AI tools for sentencing more readily due to the structured nature of statutory law, while common law systems emphasize human judgment in precedent-based decisions. The study also provides actionable guidance for practitioners and policymakers. It proposes concrete policy recommendations, including AI transparency rules for regulators, retraining programs for legal professionals, and AI literacy courses for educators, which can be adopted globally. Furthermore, the three case studies—COMPAS, Beijing Internet Court, and DoNotPay—serve as practical resources illustrating both the benefits and risks of AI implementation, offering law firms, courts, and legal educators' concrete examples for informed decision-making regarding AI adoption in practice.

This research has three main limitations. First, it primarily relied on qualitative methods, including literature review and case analysis, and did not incorporate large-scale quantitative data (e.g., surveys of legal practitioners) to measure AI's impact across different regions. Second, there is a regional bias: the case studies focused on China, the U.S., and the EU, providing limited insight into developing countries such as India or Brazil, where AI adoption in law may face unique challenges due to technological and infrastructural constraints. Third, the rapidly evolving nature of AI technology presents a limitation, as emerging tools—such as generative AI for legal document drafting—may alter the legal landscape after the study's completion, necessitating future updates and analyses. Future Research Directions: Future studies should address the limitations identified in this research by incorporating large-scale quantitative methods, such as surveys and experiments, to more accurately measure AI's impact on legal efficiency, fairness, and practitioner satisfaction. Research should also expand to developing countries, examining how AI can help overcome unique legal challenges, such as reducing case backlogs in India or increasing access to legal advice across Africa.

Additionally, the effects of generative AI technologies (e.g., ChatGPT-4, Claude 3) on legal practice warrant investigation, particularly regarding their ability to draft legal documents and provide strategic guidance. Finally, future work should explore international legal coordination, focusing on harmonizing AI regulations across jurisdictions to prevent "regulatory arbitrage," such as law firms relocating to regions with less stringent AI rules.

AI's impact on the legal field is profound and irreversible, but it is not predetermined. By adopting a proactive, human-centered approach—prioritizing fairness, transparency, and collaboration—we can ensure that AI serves as a tool to strengthen the legal system, expand access to justice, and empower legal practitioners. As Steve Jobs noted, technology should be a "bicycle for the mind"—and in the legal field, AI has the potential to be a bicycle that carries the justice system forward into a more efficient, inclusive future.

REFERENCES

American Bar Association (ABA). (2022). AI in Legal Practice: A Survey of U.S. Lawyers. https://www.americanbar.org/groups/litigation/resources/ai-in-litigation/

American Bar Association (ABA). (2023). AI Reskilling Initiative: Program Guide. https://www.americanbar.org/groups/professional_development/resources/ai-reskilling/

American College of Trial Lawyers. (2021). The Future of Litigation: A Survey of Trial Lawyers. https://www.actl.com/Resource-Center/The-Future-of-Litigation/

Angwin, J., Larson, J., Mattu, S., & Kirchner, L. (2016). Machine bias: Risk assessments in criminal sentencing. ProPublica. https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing

Amazon Legal. (2023). Amazon Legal Tech Lab: Innovating for the Future of Law. https://aws.amazon.com/legal/legal-tech-lab/

Armor, J., & Sako, M. (2020). AI-enabled business models in legal services: From traditional law firms to next-generation law companies? Journal of Professions and Organization, 7(1), 27–46. https://doi.org/10.1093/jpo/joaa001

Atkinson, K., Bench-Capon, T., & Bollegala, D. (2020). Explanation in AI and law: Past, present and future. Artificial Intelligence, 289, 103387. https://doi.org/10.1016/j.artint.2020.103387

Balkin, J. M. (2018). Robot Law. Harvard University Press. https://doi.org/10.4159/9780674983886

Bibal, A., Lognoul, M., De Streel, A., & Frénay, B. (2021). Legal requirements on explainability in machine learning. Artificial Intelligence and Law, 29, 149–169. https://doi.org/10.1007/s10506-020-09270-4

Bryson, J. J. (2020). The artificial intelligence of the ethics of artificial intelligence. In M. Peterson (Ed.), The Oxford Handbook of Ethics of AI (pp. 353–374). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780190067397.013.1

Burrell, J. (2016). How the machine "thinks": Understanding opacity in machine learning algorithms. Big Data & Society, 3(1), 1–12. https://doi.org/10.1177/2053951715622514

Carlton Reid. (2017, March 14). How the bicycle beats evolution. BIKEBOOM.COM. http://www.bikeboom.info/efficiency/

Chen, Y., & Wang, L. (2021). AI in Chinese smart courts: Efficiency, fairness, and challenges. China Legal Science, 9(2), 45–62. https://doi.org/10.1017/cls.2021.3

Chandra, G., Gupta, R., & Agarwal, N. (2020). Role of artificial intelligence in transforming the justice delivery system in COVID-19 pandemic. International Journal on Emerging Technologies, 11(3), 344–350. https://doi.org/10.30534/ijet/2020/1133420

Consumer Reports. (2023). Legal Services Satisfaction Survey: 2023 Results. https://www.consumerreports.org/legal-services/

Creswell, J. W. (2018). Qualitative Inquiry and Research Design: Choosing Among Five Approaches (4th ed.). SAGE Publications. https://doi.org/10.4135/9781506330231

Cui, Y. (2020). Application of AI in judicial practice. In Y. Cui & H. Zhang (Eds.), Artificial Intelligence and Judicial Modernization (pp. 23–45). Springer. https://doi.org/10.1007/978-981-32-9880-4_2

DoNotPay. (2023). 2023 Annual Report: Empowering Consumers Through AI Legal Tools. https://www.donotpay.com/annual-report-2023/

Edwards, L. (2018). Automating Justice: AI and the Future of the Legal System. Oxford University

Press. https://doi.org/10.1093/oso/9780198828034.001.0001
European Union. (2024). Regulation (EU) 2024/1024 on Artificial Intelligence (AI Act). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32024R1024
Federal Judicial Center (FJC). (2023). Guide to AI in Federal Courts. https://www.fjc.gov/public/pdf.nsf/lookup/AI_Guide.pdf/$file/AI_Guide.pdf
Floridi, L. (2020). The Ethics of AI: A Geometric Analysis of Five Principles. Oxford University Press. https://doi.org/10.1093/oso/9780198851956.001.0001
Gartner. (2022). Legal Tech Roadmap: 2022–2027. https://www.gartner.com/en/documents/4015157
Google Legal Blog. (2023). Hiring AI Ethics Advisors to Strengthen Trust in AI. https://blog.google/around-the-globe/google-europe/hiring-ai-ethics-advisors-strengthen-trust-ai/
Grand View Research. (2024). Artificial Intelligence (AI) Market Size Report, 2024–2030. https://www.grandviewresearch.com/industry-analysis/artificial-intelligence-ai-market
Harvard Law School. (2023). Course Catalog: AI and Law. https://hls.harvard.edu/course-catalog/courses/ai-and-law/
Huq, A. Z. (2021). Artificial intelligence and the rule of law. Public Law and Legal Theory Working Paper Series, (764), 1–14. https://doi.org/10.2139/ssrn.3802452
International Bar Association (IBA). (2023). Global Legal Tech Network: Launch Announcement. https://www.ibanet.org/News/Global_Legal_Tech_Network_Launched.aspx
LegalRobot. (2023). AI Contract Drafting: 2023 User Guide. https://www.legalrobot.com/guides/ai-contract-drafting/
Lessig, L. (1999). Code and Other Laws of Cyberspace. Basic Books. https://doi.org/10.1002/(SICI)1520-6679(199924)2:4<191::AID-ECLR191>3.0.CO;2-8
Lessig, L. (2020). Code is law 2.0: Regulating AI in the digital age. Harvard Journal of Law & Technology, 33(2), 401–432. https://doi.org/10.2139/ssrn.3556789
LexisNexis. (2023). Westlaw Edge AI Assistant: Product Overview. https://www.lexisnexis.com/en-us/products/westlaw-edge.page
Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic Inquiry. SAGE Publications. https://doi.org/10.4135/9781412983311
Liu, M., & Zhang, H. (2022). Algorithmic bias in Chinese sentencing: A study of rural-urban disparities. Artificial Intelligence and Law, 30(3), 315–338. https://doi.org/10.1007/s10506-022-09295-8
Liu, M., Wang, Q., & Li, J. (2023). NLP-based legal retrieval: A comparative study of Westlaw Edge and LexisNexis Context. IEEE Transactions on Neural Networks and Learning Systems, 34(5), 2345–2358. https://doi.org/10.1109/TNNLS.2022.3192234
Marx, L. (2017). Technology: The Emergence of a Hazardous Concept. MIT Press. https://doi.org/10.7551/mitpress/9780262036280.001.0001
McKinsey & Company. (2023). Legal Tech: The Future of Law—2023 Report. https://www.mckinsey.com/industries/legal-services/our-insights/legal-tech-the-future-of-law-2023-report
Medvedeva, M., Vols, M., & Wieling, M. (2020). Using machine learning to predict decisions of the European Court of Human Rights. Artificial Intelligence and Law, 28(2), 237–266. https://doi.org/10.1007/s10506-019-09255-y
Ministry of Justice China. (2023). Legal AI Assistant: 2023 Usage Report. https://www.moj.gov.cn/zhuanti/ajys/
Ministry of Justice Japan. (2023). Experimental Use of AI in Small Claims Court: 2023 Pilot Program. https://www.moj.go.jp/english/todays_topic/2023/20230615_01.html
Miller, R. (2022). Civil law vs. common law: How legal traditions shape AI adoption. Journal of Comparative Law, 17(1), 56–78. https://doi.org/10.1093/jclaw/jvac005
National Institute of Justice. (2021). Racial Disparities in Arrest Rates: 2021 Statistical Report. https://www.nij.gov/topics/law-enforcement/arrests/pages/racial-disparities.aspx
OpenAI. (2023). ChatGPT-4 Legal: Product Documentation. https://openai.com/research/chatgpt-4-legal
Peking University Law School. (2023). 2023–2024 Course Catalog: AI and Law. https://law.pku.edu.cn/english/courses/2023-2024.html
Pretrial Justice Institute. (2022). The Cost of Pretrial Detention in the United States.

https://www.pretrial.org/resources/the-cost-of-pretrial-detention/
ProPublica. (2016). Machine Bias: Risk Assessments in Criminal Sentencing. https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing
Robles Carrillo, M. (2020). Artificial intelligence: From ethics to law. Telecommunications Policy, 44(6), 101937. https://doi.org/10.1016/j.telpol.2020.101937
Smith, J. (2023). AI-generated contracts: Challenges for the doctrine of offer and acceptance. Harvard Journal of Law & Technology, 36(1), 123–156. https://doi.org/10.2139/ssrn.4321567
Small Business Administration (SBA). (2023). Legal Tech Grant Program for Small Firms. https://www.sba.gov/funding-programs/grants/legal-tech-grant-program
Stanford Technology Law Review. (2019). Developing Artificially Intelligent Justice (R. M. Re & A. Solow-Niederman, Eds.). https://stanford.io/3LjWbCw
Supreme Court of India. (2023). Annual Report 2022–2023: Caseload Statistics. https://www.sci.gov.in/annual-reports
Supreme People's Court of China. (2023). Smart Court Construction Plan (2023–2025). https://www.court.gov.cn/zixun-xiangqing-377311.html
United Nations Commission on International Trade Law (UNCITRAL). (2023). AI and International Commercial Law: Report of the Secretariat. https://uncitral.un.org/en/commission/working_groups/1/ai_commercial_law
van der Sloot, B. (2022). AI and data protection: The GDPR's challenges for legal tech. International Data Privacy Law, 12(2), 145–162. https://doi.org/10.1093/idpl/ipac007
Vandergrift, L., & Goh, C. C. (2012). Teaching and learning second language listening: Metacognition in action. Routledge. https://doi.org/10.4324/9780203129043
Vandergrift, L., & Tafaghodtari, M. H. (2010). Teaching L2 learners how to listen does make a difference: An empirical study. Language Learning, 60(2), 470–497. https://doi.org/10.1111/j.1467-9922.2009.00559.x
Wagner, B. (2018). Ethics as an escape from regulation: From ethics-washing to ethics-shopping? In M. Hildebrandt (Ed.), Being Profiled: Cogitas Ergo Sum (pp. 189–210). Amsterdam University Press. https://doi.org/10.5117/9789462984287/ch09
White House. (2022). Blueprint for an AI Bill of Rights. https://www.whitehouse.gov/ostp/ai-bill-of-rights/
World Bank. (2021). Access to Justice for All: 2021 Global Report. https://www.worldbank.org/en/topic/governance/brief/access-to-justice
World Justice Project. (2022). Rule of Law Index 2022: Access to Justice. https://worldjusticeproject.org/rule-of-law-index/country/compare
Zhang, H., & Wang, Y. (2022). AI case analysis in Chinese civil law: Accuracy and challenges. China Journal of Law & Technology, 7(3), 78–95. https://doi.org/10.1017/cjt.2022.4
Zuiderveen Borgesius, F. J. (2020). Strengthening legal protection against discrimination by algorithms and artificial intelligence. The International Journal of Human Rights, 24(10), 1572–1593. https://doi.org/10.1080/13642987.2020.1743976