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Regulating AI in Legal Practice: Challenges and Opportunities

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ABSTRACT

The integration of Artificial Intelligence (AI) in legal practice is transforming the legal profession by enhancing efficiency and accessibility while presenting significant ethical and regulatory challenges. AI applications such as predictive analytics, automated document drafting, and AI-driven legal research hold immense potential to reduce administrative burdens, streamline case management, and improve access to justice. However, issues such as algorithmic bias, lack of transparency, and data privacy concerns raise critical questions about fairness and accountability in AI-driven decision-making. This study aims to analyze the dual landscape of challenges and opportunities associated with AI adoption in legal practice, emphasizing the need for balanced regulatory frameworks. A systematic review of existing literature was conducted to identify the obstacles and benefits of AI integration. Key challenges include algorithmic biases, inadequate legal frameworks, and the digital divide among legal professionals, while opportunities range from cost reduction to improved dispute resolution processes. The findings contribute to ongoing discussions on AI governance by proposing actionable strategies such as fairness audits, explainable AI practices, and targeted training programs for legal professionals.

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1. Introduction

The advent of artificial intelligence (AI) has fundamentally altered how legal professionals approach their work, offering tools that automate mundane tasks, analyze complex datasets, and even predict legal outcomes. As the legal sector increasingly integrates AI-driven technologies, such as contract review algorithms, predictive analytics, and virtual legal assistants, these advancements promise greater efficiency and accessibility in legal practice. However, this rapid adoption of AI also introduces

significant concerns regarding ethical implications, legal accountability, and the potential for systemic biases. Understanding these challenges is vital to crafting a balanced regulatory framework that fosters innovation while safeguarding fundamental legal principles.

The urgency to address AI regulation in legal practice stems from the sector's pivotal role in upholding justice and societal trust. Unlike other industries, legal decisions often affect individual rights and freedoms, making transparency and fairness non-negotiable. Without robust regulations, there is a risk of unintentional errors or malicious misuse of AI, leading to

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inequitable outcomes or breaches of confidentiality [1]-[4]. For example, biases embedded in AI algorithms could perpetuate discrimination in sentencing recommendations or legal advice. As AI continues to evolve, clear regulatory standards could exacerbate such risks, leaving stakeholders ill-equipped to address the complexities of AI governance [5]-[8].

Despite these challenges, the integration of AI into legal practice presents unparalleled opportunities to enhance legal service delivery. From reducing the cost of legal representation to improving access to justice for underserved communities, AI technologies hold immense transformative potential. A thoughtfully regulated AI landscape could encourage innovation by providing developers and legal professionals with clear guidelines and benchmarks. Furthermore, fostering collaboration among policymakers, technologists, and legal practitioners could pave the way for the creation of ethical AI solutions tailored to the sector's unique demands [9]-[11].

This paper explores the duality of challenges and opportunities associated with regulating AI in legal practice. By analyzing existing regulatory frameworks, identifying gaps, and proposing actionable strategies, it aims to contribute to the ongoing discourse on AI governance. The findings and recommendations presented here highlight the importance of aligning AI regulations with legal ethics and underscore the need for forward-thinking approaches to ensure that technological advancements remain a force for good within the legal profession.

Some publications related to the discourse we discuss in this article can be seen in Table 1.

Table 1. Related publication

Study	Relevant	Main Contribution
AI Adoption in Colombian Legal Practice: Challenges and Opportunities [12]	The study is highly relevant to our study as it provides a focused examination of how AI is being integrated into a specific legal system, highlighting both the potential benefits and the challenges that accompany this transformation. The Colombian context offers a valuable case study of early-stage AI adoption, addressing universal concerns such as underdeveloped infrastructure, the digital divide, algorithmic bias, and data privacy. By examining Colombia's experiences, our research gains a comparative perspective that	The main contribution of the study lies in its in-depth exploration of how Colombia is navigating the integration of AI into its legal system, offering valuable insights into both the potential benefits and the challenges associated with this transition. By analyzing case studies from other jurisdictions and examining Colombia's legislative efforts, the study provides a framework for understanding how AI can optimize case management and decision-making processes to enhance efficiency and effectiveness in the judicial system.

	enhances its applicability to global discussions on regulating AI in legal practice.	
Assessing trustworthy AI: Technical and legal perspectives of fairness in AI [13]	The publication is highly pertinent to our study on regulating AI in legal practice, as it delves into the critical issue of ensuring fairness and non-discrimination within AI systems—a cornerstone of ethical legal practice. By examining state-of-the-art bias mitigation techniques and juxtaposing them with existing legal frameworks, particularly within the European Union's AI Act, the study illuminates the complexities of aligning technical solutions with legal mandates. This exploration underscores the necessity for clear, comprehensive regulations that not only address technical aspects of AI fairness but also adhere to legal standards, thereby safeguarding individual rights and upholding justice.	The main contribution of this study lies in its focused examination of fairness in AI systems, specifically in the context of non-discrimination and the legal challenges surrounding bias mitigation. By investigating state-of-the-art methods for addressing bias and contrasting them with legal requirements, particularly within the European Union's AI Act, the study provides critical insights into how AI can be regulated to ensure fairness and prevent discrimination. The paper's exploration of the complexities involved in defining fairness and the need for a comprehensive legal framework to address these issues directly contributes to our understanding of how AI systems should be regulated in legal practice.
Open government data from a legal perspective: An AI-driven systematic literature review [14]	The study provides valuable insights for our study by highlighting the multifaceted nature of legal frameworks and their impact on practice. Its exploration of how laws governing open government data (OGD) intersect with issues such as access, re-use, privacy, and copyright mirrors the complexity of	The main contribution of this study lies in its thorough analysis of the legal frameworks governing open government data (OGD), revealing the complexity and breadth of OGD law, which cannot be reduced to a single piece of legislation. By conducting an AI-driven systematic literature review, the study highlights the

	regulating AI in legal contexts, where multiple competing interests must be balanced. The study’s identification of topics, sources, and levels of OGD law as dimensions for assessing legal impact offers a structured approach that could inform our analysis of AI regulatory frameworks.	multiple dimensions of OGD law, including access to information, re-use, and the resolution of conflicting interests such as privacy and copyright. It emphasizes the need for a more nuanced understanding of how different sources and levels of law impact OGD practices and underscores the lack of clear empirical evidence regarding the most effective regulatory frameworks.
The law and practice of international organizations’ interactions with personal data protection domestic regulation [15]	The study is highly relevant to our study as it highlights the complexities of harmonizing legal frameworks across different jurisdictions and contexts. The interaction and tensions between domestic regulations, such as data protection laws, and international legal frameworks resonate with the challenges of regulating AI, where multiple stakeholders and legal systems must align to address issues like fairness, transparency, and accountability. The study’s exploration of pragmatic approaches that balance the fundamental rights to data protection with operational independence offers valuable insights into crafting flexible yet effective regulatory frameworks for AI in legal practice.	The main contribution of this study lies in its exploration of the complex interaction between domestic and international legal frameworks, particularly in the realm of personal data protection. By examining how states’ regional laws, like the EU General Data Protection Regulation, coexist with the regulations of International Organizations (IOs), the study sheds light on the tensions that arise when different legal systems overlap. It underscores the pragmatic approach needed to balance the protection of fundamental rights, such as personal data protection, with the operational independence required by IOs to fulfill their mandates. This research provides valuable insights into the challenges of harmonizing legal frameworks.

The Fundamental Rights Impact Assessment (FRIA) in the AI Act: Roots, legal obligations and key elements for a model template [16]	The study directly relevant to our study as it addresses the critical need to assess and safeguard fundamental rights within AI systems. The introduction of the FRIA as a tool for ensuring human-centric and trustworthy AI aligns with the broader objectives of regulating AI in legal contexts, where fairness, transparency, and accountability are paramount. This study’s exploration of methodological criteria and the development of a model template for FRIA offers actionable insights that can inform legal frameworks and policies for AI governance.	The main contribution of this study is its in-depth exploration of the Fundamental Rights Impact Assessment (FRIA) within the EU’s AI Act, addressing the legal and methodological challenges in ensuring that AI systems respect fundamental rights. By analyzing the context that led to the introduction of the FRIA, the study provides a critical framework for evaluating the impact of AI on human rights, filling existing gaps in both theoretical and practical approaches. The article offers a detailed proposal for a model template for the FRIA, which not only aligns with the AI Act’s provisions but also serves as a versatile tool for other regulatory bodies to ensure AI development remains human-centric.
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2. Method

Figure 1 are shown a systematic and well-structured approach to achieve research goals.

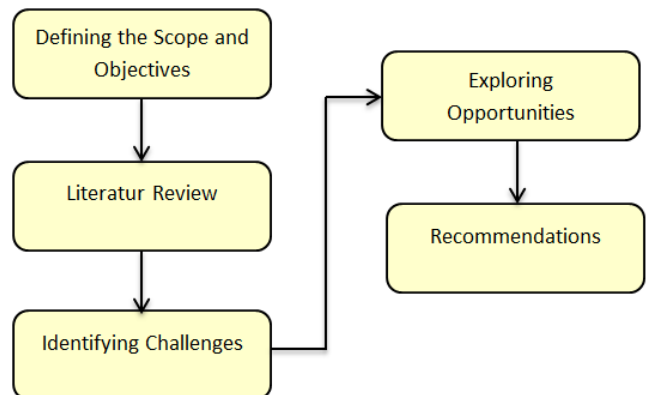


Figure 1 – Research steps

1. Defining the Scope and Objectives

- Clearly articulate the study's goals, such as identifying challenges, exploring opportunities, and recommending solutions for AI regulation in legal practice.
- Determine the focus and specify the legal areas impacted by AI.

2. Literature Review

- Conduct a comprehensive review of existing literature on AI applications in the legal field, regulatory frameworks, and ethical challenges.
- Analyze key studies related to AI fairness, transparency, and accountability, such as FRIA (Fundamental Rights Impact Assessment), and their applicability to legal practice.

3. Identifying Challenges

- Investigate the specific obstacles to regulating AI in legal practice, including algorithmic bias, data privacy concerns, lack of transparency, and accountability gaps.
- Analyze technical challenges, such as interpretability of AI models, and legal concerns, such as compliance with existing laws.
- Assess the readiness of existing infrastructure and workforce to support AI implementation in the legal field.

4. Exploring Opportunities

- Highlight the potential benefits of AI in legal practice, such as efficiency in case management, streamlined legal research, and enhanced decision-making.
- Identify innovative AI-driven tools (e.g., predictive analytics, contract review systems) and evaluate their transformative potential for the legal sector.
- Explore how AI can improve access to justice and reduce case backlogs.

5. Recommendations

- Provide actionable recommendations for governments, legal organizations, and technology developers.
- Suggest strategies for capacity building, such as training programs for legal professionals to understand and utilize AI responsibly.

	AI chatbots	protection frameworks
Inadequate legal frameworks for AI use	Predictive analytics for case outcomes	Establish comprehensive AI-specific legal frameworks
Digital divide among legal professionals	Democratization of legal services for underserved communities	Implement training programs for lawyers on AI technologies
Accountability issues in AI decisions	Improved dispute resolution via AI-driven mediation tools	Create liability frameworks for AI errors
Resistance to technological adoption	Cost reduction in repetitive legal processes	Conduct awareness campaigns highlighting AI's benefits
Potential misuse of AI tools	Enhanced due diligence capabilities	Enforce ethical guidelines for AI deployment in legal systems
Interoperability challenges with legacy systems	Integration of AI with legal databases for seamless operations	Incentivize modernization of legal IT infrastructure
Limited standardization across jurisdictions	Collaboration in cross-border legal cases	Promote harmonization of AI regulations globally

3. Result and Discussion

Table 2 shown the examples of challenges, opportunities, and recommended solutions for AI regulation in legal practice:

Table 2. The challenges, opportunities, and recommended solutions

Challenges	Opportunities	Recommended Solutions
Algorithmic bias in AI decision-making	Enhanced efficiency in legal research and case management	Develop and enforce fairness audits for AI systems
Lack of transparency in AI models	Automated contract analysis reducing processing time	Mandate explainable AI (XAI) practices for legal AI tools
Data privacy concerns	Improved accessibility to legal advice through	Align AI regulations with robust data

The integration of Artificial Intelligence (AI) in legal practice presents a dual landscape of challenges and opportunities that require careful consideration to ensure ethical, effective, and efficient outcomes. Algorithmic bias in AI decision-making remains a significant issue, as biased outputs can lead to unjust legal decisions. However, the potential for AI to enhance efficiency in legal research and case management offers a powerful incentive to address these biases. Implementing fairness audits for AI systems can mitigate these risks and build trust in AI-driven legal tools. Similarly, the lack of transparency in AI models, often referred to as the "black-box" problem, can hinder their adoption in legal settings. This challenge is counterbalanced by opportunities like automated contract analysis, which significantly reduces processing time. Mandating explainable AI (XAI) practices ensures that these systems remain transparent and understandable, fostering confidence among legal professionals and stakeholders.

Data privacy concerns and the absence of robust legal frameworks for AI are also pressing challenges. While AI-powered chatbots and predictive analytics offer improved accessibility to legal advice and insights into case outcomes, their benefits can only be fully realized if privacy risks are addressed. Aligning AI regulations with existing data protection frameworks, such as GDPR, and establishing AI-specific legal frameworks are critical steps. Additionally, the digital divide among legal professionals highlights the need for equitable access to AI tools, enabling legal services for underserved communities. Training programs designed to enhance AI literacy among lawyers can bridge this gap, ensuring that all practitioners, regardless of their technological background, can effectively leverage AI innovations in their work. Collectively, addressing these

challenges with targeted solutions will enable the legal sector to harness the transformative potential of AI responsibly and inclusively. Table 3 are shown the potential benefits of AI in legal practice:

Table 3. The potential benefits of AI

Benefit	Description	Impact on Legal Practice
Efficiency in Case Management	AI can organize and categorize case documents, schedule tasks, and monitor deadlines automatically.	Reduces administrative burden, saving time for legal professionals to focus on strategy.
Streamlined Legal Research	AI-powered tools can analyze vast legal databases to identify relevant precedents and statutes.	Accelerates research, ensuring lawyers have the most relevant information at hand.
Enhanced Decision-Making	AI systems provide predictive analytics to assess case outcomes based on historical data.	Helps lawyers and clients make informed decisions about litigation strategies.
Automated Document Drafting	AI tools can draft contracts, legal briefs, and standard documents with minimal human intervention.	Saves time and minimizes errors in repetitive legal drafting tasks.
Improved Client Communication	AI chatbots can provide initial legal advice and answer frequently asked questions efficiently.	Enhances accessibility to legal services for clients with basic queries.
AI-Powered Due Diligence	AI can review contracts, identify risks, and ensure compliance with regulations.	Streamlines processes, reducing time and costs in corporate transactions.
Cost-Effective Legal Solutions	AI reduces reliance on extensive human resources for basic legal tasks.	Makes legal services more affordable, especially for smaller firms or individuals.
Facilitated Dispute Resolution	AI-driven mediation platforms offer neutral assessments and potential resolutions for disputes.	Accelerates dispute resolution while reducing reliance on lengthy court processes.
Improved Accessibility	AI platforms democratize legal knowledge, providing basic legal insights to underserved populations.	Bridges the gap for those who cannot afford traditional legal representation.
Error Reduction	AI reduces the risk of oversight in contract reviews and compliance checks.	Improves accuracy and reliability in legal documentation and processes.

The integration of AI into legal practice offers a transformative approach to addressing some of the most pressing challenges in the field. By automating case management, AI reduces the administrative burden on legal professionals, enabling them to concentrate on strategic planning and client representation. AI-powered tools streamline legal research by analyzing vast databases, providing precise and timely access to relevant precedents and statutes. This ensures that lawyers can base their arguments on well-researched data, enhancing the quality of their work. Additionally, predictive analytics allow legal professionals and their clients to assess potential case outcomes, enabling informed decision-making that can save both time and resources. Automated document drafting further adds efficiency by minimizing human errors in repetitive tasks like contract creation and legal briefs.

To fully harness these benefits, certain recommendations should be considered. Legal organizations should prioritize the adoption of AI systems that emphasize transparency and explainability to foster trust among users and stakeholders. Comprehensive training programs should be implemented to familiarize legal professionals with AI tools and their applications. Regulators must develop clear guidelines that address concerns such as algorithmic bias and data privacy to ensure that AI systems are both ethical and compliant with existing legal standards. Additionally, collaborations between AI developers, legal experts, and policymakers can help refine AI technologies to better meet the specific needs of the legal sector. By adopting these strategies, the legal profession can maximize AI's potential to enhance efficiency, accessibility, and fairness, transforming the way legal services are delivered and consumed.

5. Conclusion

The integration of Artificial Intelligence (AI) into the legal profession represents a pivotal moment, blending innovation with the foundational principles of justice. This transformation offers significant advantages, from streamlining legal research and automating routine tasks to improving access to justice for underserved communities. However, these advancements come with critical challenges, including algorithmic bias, transparency issues, and data privacy concerns, which must be addressed to ensure equitable and ethical AI applications. By adopting explainable AI practices, aligning regulations with existing legal frameworks, and fostering collaboration among stakeholders, the legal sector can balance innovation with accountability. Through targeted training and the development of comprehensive policies, AI can be harnessed to create a more efficient, inclusive, and trustworthy legal system, underscoring its role as a force for positive change in the profession.

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