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Corporate Governance-Based Liability for Artificial Intelligence-Driven Intellectual Property Violations: Reconstructing Business Law Accountability in the Era of Generative Artificial Intelligence

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Abstract

The rapid development of generative artificial intelligence has significantly transformed contemporary business models, enabling corporations to automate creative processes, produce digital content at scale, and develop data-driven innovation strategies. While these technological advancements offer substantial economic benefits, they simultaneously raise complex legal challenges, particularly regarding the protection of intellectual property rights. Generative artificial intelligence systems are often trained on large-scale datasets that may contain copyrighted materials, patented technologies, or proprietary databases, thereby increasing the potential risk of intellectual property infringement. In many cases, the output produced by artificial intelligence systems may replicate or imitate protected works without the authorization of the original rights holders. This situation raises fundamental questions concerning legal responsibility, especially when artificial intelligence systems operate autonomously within corporate infrastructures.

This article examines the problem of corporate accountability when artificial intelligence systems deployed in business operations lead to intellectual property violations. Using a normative legal research method combined with a comparative legal approach, this study analyzes how existing legal frameworks address corporate liability in relation to artificial intelligence-driven intellectual property infringement. The analysis focuses on regulatory developments in the European Union, the United States, and Indonesia.

The findings indicate that traditional fault-based liability doctrines are insufficient to address the complex accountability challenges posed by artificial intelligence technologies. Therefore, this article proposes a governance-based liability model that integrates corporate governance principles, technological risk management, and compliance mechanisms. By emphasizing preventive accountability through algorithmic transparency, dataset auditing, and corporate oversight, this framework aims to reconstruct business law accountability in the era of generative artificial intelligence.

Keywords: Artificial Intelligence Governance; Corporate Liability; Intellectual Property Law; Business Law; Algorithmic Accountability; Generative Artificial Intelligence; Corporate Governance

INTRODUCTION

The emergence of generative artificial intelligence has significantly reshaped modern business practices by enabling corporations to automate decision-making processes and

produce creative outputs at scale.[1] AI technologies are increasingly embedded in corporate operations, including content production, product development, and data analytics.[2]

However, the widespread adoption of AI has introduced substantial legal risks, particularly in relation to intellectual property law. AI systems rely on large-scale datasets that often include copyrighted materials, patented inventions, and proprietary information.[2] The use of such data without proper authorization raises serious concerns regarding copyright infringement and misuse of protected works.[3]

Moreover, AI systems are capable of autonomously generating outputs that may replicate or resemble existing protected works. This creates significant legal uncertainty in determining responsibility, especially when outputs are produced without direct human intervention.[4]

Traditional liability frameworks, which rely on identifying human fault, are increasingly inadequate to address these challenges.[5]

Existing scholarship has primarily focused on individual liability, particularly the responsibility of developers and users.[7] However, this perspective overlooks the central role of corporations as the primary actors in developing, deploying, and benefiting from AI technologies.[6]

This article argues that corporate governance should serve as the primary framework for assigning legal responsibility in AI-driven intellectual property violations. It proposes a governance-based liability model that shifts accountability from individuals to corporate structures.

LITERATURE REVIEW

Scholarly discussions on artificial intelligence and intellectual property law have evolved significantly. Early studies focused on authorship and ownership, particularly whether AIgenerated works can be attributed to human creators.[7] These foundational debates highlight the conceptual limitations of traditional intellectual property doctrines when applied to machine-generated outputs.

Subsequent research examined liability attribution, often assigning responsibility to developers or users.[8] However, such approaches have been criticized for failing to account for organizational complexity.[9]

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[1] Klaus Schwab, *The Fourth Industrial Revolution* (Geneva: World Economic Forum, 2017); Hal R. Varian, "Artificial Intelligence, Economics, and Industrial Organization," *Journal of Economic Perspectives* (2019). [2] Viktor Mayer-Schönberger and Kenneth Cukier, *Big Data: A Revolution That Will Transform How We Live, Work, and Think* (London: John Murray, 2013).

[2] Daniel Gervais, "Artificial Intelligence and Intellectual Property: A Call for Policy Reform," *Journal of Intellectual Property Law & Practice* (2020).

[3] Andres Guadamuz, "Artificial Intelligence and Copyright," *WIPO Magazine* (2017).

[4] Harry Surden, "Artificial Intelligence and Law: An Overview," *Georgia State University Law Review* 35 (2019); Ryan Abbott, *The Reasonable Robot: Artificial Intelligence and the Law* (Cambridge: Cambridge University Press, 2020).

[5] Steven Shavell, *Foundations of Economic Analysis of Law* (Cambridge: Harvard University Press, 2004). [7] Ryan Calo, "Robotics and the Lessons of Cyberlaw," *California Law Review* 103, no. 3 (2015): 513–63; Joanna J. Bryson, Mihailis Diamantis, and Thomas Grant, "Of, for, and by the People: The Legal Lacuna of Synthetic Persons," *Artificial Intelligence and Law* (2017).

[6] Henry Hansmann and Reinier Kraakman, "The End of History for Corporate Law," *Georgetown Law Journal* 89 (2000): 439–68.

[7] Kalin Hristov, "Artificial Intelligence and the Copyright Dilemma," *IDEA: The Intellectual Property Law Review* (2017).

[8] Ryan Calo, Op.Cit., hal. 63.

Recent scholarship emphasizes governance, transparency, and accountability in AI systems.[10] These studies suggest that legal responsibility should be conceptualized as a systemic and organizational issue.

Despite these advances, integration between corporate governance theory and intellectual property law remains limited. This study addresses this gap by introducing a governancebased liability framework.

RESEARCH METHOD

This research employs a normative legal method combined with a comparative approach. It analyzes legal doctrines, regulatory frameworks, and scholarly literature related to AI and intellectual property law.[11]

Comparative analysis evaluates regulatory approaches across jurisdictions, enabling identification of best practices in addressing AI-related risks.[12]

AI-Driven Business Models and IP Risk Exposure

AI-driven business models rely on automation and large-scale data processing. Corporations utilize AI systems to generate content and innovate products. However, such practices create significant risks of IP infringement due to unauthorized data usage.[13]

AI-generated outputs may replicate existing works, raising concerns about originality, authorship, and ownership.[14] These risks should be treated as corporate operational risks rather than isolated technical errors.

Corporate Governance and Algorithmic Accountability

Corporate governance plays a critical role in managing technological risks. Effective governance mechanisms include dataset auditing, algorithmic transparency, compliance systems, and board oversight.[15]

These mechanisms allow corporations to monitor and mitigate risks associated with AI deployment. Governance must evolve to address algorithmic decision-making and systemic risk exposure.

Theoretical Model: Governance-Based Liability

This study proposes a governance-based corporate liability model, in which legal responsibility arises from failures in corporate governance rather than individual fault.[8]Under

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[9] Arthur Cockfield and Jason Pridmore, *Law and Technology in the Digital Age* (Toronto: University of Toronto Press, 2020).

[10] Frank Pasquale, *The Black Box Society: The Secret Algorithms That Control Money and Information* (Cambridge: Harvard University Press, 2015); Sandra Wachter, Brent Mittelstadt, and Luciano Floridi, "Why a Right to Explanation of Automated Decision-Making Does Not Exist in the GDPR," *International Data Privacy Law* 7, no. 2 (2017): 76–99.

[11] Steven Shavell, *Foundations of Economic Analysis of Law* (Cambridge: Harvard University Press, 2004); Louis Kaplow and Steven Shavell, *Fairness versus Welfare* (Cambridge: Harvard University Press, 2002).

[12] World Intellectual Property Organization, *WIPO Technology Trends 2020: Artificial Intelligence* (Geneva: WIPO, 2020).

[13] Pamela Samuelson, "Artificial Intelligence and Copyright Law," *Columbia Journal of Law & the Arts* (2020); Andres Guadamuz, "Artificial Intelligence and Copyright," *WIPO Magazine* (2017).

[14] Ryan Abbott, *The Reasonable Robot: Artificial Intelligence and the Law* (Cambridge: Cambridge University Press, 2020); Kalin Hristov, "Artificial Intelligence and the Copyright Dilemma," *IDEA: The Intellectual Property Law Review* (2017).

[15] Bryce Goodman and Seth Flaxman, "European Union Regulations on Algorithmic Decision-Making and a 'Right to Explanation'," *AI Magazine* 38, no. 3 (2017): 50–57; Mireille Hildebrandt, *Law for Computer Scientists and Other Folk* (Oxford: Oxford University Press, 2020).

this framework, liability is triggered when corporations fail to implement adequate mechanisms for managing AI-related risks, including data governance, compliance oversight, and algorithmic accountability.[16]

This model reflects a shift from individualistic liability frameworks toward an organizational approach that recognizes the structural nature of technological risk. By situating responsibility within corporate governance systems, the proposed framework aligns legal accountability with the realities of AI-driven business environments.

Model Structure:

AI Deployment → IP Risk Exposure → Governance Failure → Corporate Liability

This model emphasizes preventive accountability and aligns with risk governance theory.

Comparative Analysis

The European Union adopts a risk-based regulatory approach emphasizing accountability and compliance. The United States relies on sectoral and case-based approaches.[17] Indonesia is in an early stage of AI governance development, with evolving regulatory frameworks.

DISCUSSION

Reconstructing Corporate Liability for Artificial Intelligence-Driven Intellectual Property Violations

AI Disruption of Traditional IP Liability Structures

The development of **Generative Artificial Intelligence** has fundamentally transformed the paradigm of intellectual production, where the creation of works is no longer entirely controlled by human actors but increasingly driven by algorithmic systems trained on largescale datasets. In this context, intellectual property (IP) violations can no longer be understood solely as the result of intentional human conduct, but rather as the outcome of complex, probabilistic computational processes.[18]

The primary challenge lies in the **attribution of legal responsibility**, as the causal relationship between human action and AI-generated output becomes fragmented. Generative AI systems may produce outputs that replicate or closely resemble protected works without any direct intent from developers or users.[21] In such circumstances, traditional

fault-based liability frameworks are insufficient to determine who should be held legally responsible.[19]

Limitations of Traditional Liability Frameworks in Business Law

Within modern business law, two dominant approaches to liability prevail: **fault-based liability** and **strict liability**. However, both approaches reveal significant limitations when applied to AI-driven contexts.

Fault-based liability requires proof of intent or negligence. Yet, AI systems generate outputs through machine learning processes that are inherently unpredictable, making it difficult to establish individual fault.[20] Conversely, strict liability eliminates the need to prove

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[16] Mark A. Lemley, "IP in a World without Scarcity," *New York University Law Review* (2015).

[17] Ryan Calo.Op.Cit.hal 63.

[18] Harry Surden, "Artificial Intelligence and Law: An Overview," *Georgia State University Law Review* 35 (2019): 1305–38; Ryan Abbott, *The Reasonable Robot: Artificial Intelligence and the Law* (Cambridge: Cambridge University Press, 2020). [21] Samuelson. Op.Cit.

[19] Steven Shavell, *Foundations of Economic Analysis of Law* (Cambridge: Harvard University Press, 2004).

[20] Reuben Binns, "Fairness in Machine Learning: Lessons from Political Philosophy," *Proceedings of Machine Learning Research* (2018); Tal Zarsky, "The Trouble with Algorithmic Decisions," *Science, Technology, & Human Values* (2016).

fault but risks over-deterrence, potentially stifling innovation by imposing excessive burdens on corporations.[21]

Moreover, both frameworks fail to adequately consider the role of corporate organizational structures as central actors in AI deployment. In practice, AI is not an autonomous entity but an integral component of corporate strategy and operations.[22]

Corporations as Central Legal Actors in the AI Ecosystem

From a business law perspective, corporations function as legal entities capable of bearing rights and obligations, including liability arising from their operational activities.[23] Therefore, IP violations resulting from AI systems should be conceptualized as part of **corporate operational risk**, rather than isolated acts of individual wrongdoing.

Corporations exercise strategic control over the entire lifecycle of AI systems, including design, dataset selection, deployment, and commercialization of outputs. As such, they are the primary beneficiaries of AI technologies and are best positioned to manage associated risks.

This perspective aligns with the theory of **enterprise liability**, which holds that risks generated by business activities should be borne by the entity that benefits economically from those activities. In the context of AI, this implies that corporations must assume responsibility for IP violations arising from systems they develop or deploy.

Reconstructing Liability through a Corporate Governance Approach

To address the limitations of existing legal frameworks, this study proposes a reconstruction of liability grounded in corporate governance principles. Under this approach, legal responsibility is no longer based solely on individual fault but is instead anchored in the failure of corporate governance systems to effectively manage technological risks.[24]

This governance-based perspective shifts the focus of liability from isolated acts of misconduct to systemic organizational deficiencies. In the context of artificial intelligence, risks arise not merely from individual actions but from failures in institutional design, oversight, and compliance mechanisms. Accordingly, liability should be attributed to corporations that fail to implement adequate governance structures to anticipate, monitor, and mitigate AI-related risks.

Such an approach aligns legal accountability with the structural realities of AI-driven business models, where decision-making processes are embedded within complex sociotechnical systems. By integrating corporate governance into liability frameworks, this model provides a more comprehensive and forward-looking basis for regulating intellectual property risks in the digital economy.

This framework is conceptualized as:

Governance-Based Corporate Liability

Under this model, corporations incur liability when they fail to:

- conduct dataset audits
- ensure lawful data sourcing
- implement algorithmic transparency
- establish internal compliance mechanisms

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[21] Ryan Calo, Op.Cit.

[22] Frank Pasquale, *The Black Box Society: The Secret Algorithms That Control Money and Information* (Cambridge: Harvard University Press, 2015).

[23] Henry Hansmann and Reinier Kraakman, "The End of History for Corporate Law," *Georgetown Law Journal* 89 (2000): 439–68.

[24] Mireille Hildebrandt, *Law for Computer Scientists and Other Folk* (Oxford: Oxford University Press, 2020).

- exercise adequate oversight of AI systems

Accordingly, IP violations are interpreted as the consequence of **systemic governance failure**, rather than isolated technical errors.

Preventive Dimensions of Corporate Accountability

A key advantage of the governance-based liability approach lies in its emphasis on **preventive accountability**. Rather than focusing solely on ex post liability, this model requires corporations to actively prevent potential violations.

This includes:

1. **Dataset Auditing** Ensuring that training data does not infringe IP rights.
2. **Algorithmic Transparency**Providing sufficient information regarding how AI systems generate outputs.
3. **Internal Compliance Systems**Establishing dedicated units to oversee AI-related risks.
4. **Board-Level Oversight**Assigning responsibility for technological risk management to corporate leadership.

Through these mechanisms, corporate liability evolves into a forward-looking, risk-based governance system.

Alignment with Global Regulatory Trends

The governance-based liability approach reflects broader global regulatory developments. In the European Union, AI regulation emphasizes risk management and accountability, requiring organizations to implement structured governance frameworks.

In the United States, although regulation is more sectoral, there is a growing emphasis on governance standards and risk management in AI deployment.

Meanwhile, Indonesia remains at an early stage of AI regulatory development. However, governance-based approaches offer a promising pathway for future legal reforms in business law and intellectual property regulation.

Synthesis and Theoretical Implications

Based on the foregoing analysis, it can be concluded that AI-driven IP violations represent a systemic phenomenon that cannot be adequately addressed through traditional liability doctrines. A paradigm shift is required to accommodate the complexity of technological systems and corporate organizational structures.

The governance-based liability model proposed in this study contributes to legal scholarship by:

- shifting the focus from individual to organizational accountability
- integrating business law with technological governance
- emphasizing preventive and risk-based accountability

Accordingly, this framework offers both theoretical and practical relevance for the development of legal systems in the era of artificial intelligence.

CONCLUSION

The advancement of **Generative Artificial Intelligence** has fundamentally disrupted traditional legal frameworks governing intellectual property liability. Conventional faultbased liability models are no longer sufficient to address the complexity of AI-driven systems, where causation is distributed and outputs are generated autonomously. Intellectual property violations in this context must therefore be understood as systemic phenomena arising from the interaction between data, algorithms, and organizational structures, rather than as isolated acts of individual misconduct.

This study demonstrates that a **Corporate Governance**-based approach provides a more appropriate framework for assigning legal responsibility in AI-related intellectual

property violations. The proposed governance-based liability model reconceptualizes accountability by shifting the focus from individual fault to corporate governance failure. Under this framework, corporations emerge as the central actors responsible for managing technological risks and ensuring compliance with intellectual property law.

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