
THE BUSINESS
LAW REVIEW AT
GEORGETOWN

The Founding Edition

MAY 2026
VOLUME I, ISSUE I

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Business Law in the Age of Autonomous Decision-Making: Who is Liable When Algorithms Run the Company?

Muddathir Kehinde Jolaade

THESIS

As corporations increasingly rely on autonomous decision-making systems, existing business law frameworks struggle to assign liability for harmful outcomes. This article argues that traditionally, doctrines of corporate liability, agency law, and fiduciary duty must be adopted to account for algorithmic decision-makers to preserve accountability, protect stakeholders, and maintain public trust in corporate governance.

I. INTRODUCTION

Artificial intelligence is no longer a far-fetched concept confined to laboratories or futuristic speculation. Modern corporations now deploy algorithmic systems to make and support decisions that shape everyday economic life, including hiring, pricing, lending, fraud detection, supply chain planning, and compliance monitoring. These systems promise efficiency and consistency, but they also create new risks: discriminatory outcomes, unsafe business practices, consumer deception, and harm that occurs without a clear human decision-maker in the foreground. As autonomous decision-making becomes embedded in corporate operations, business law faces a growing challenge since its traditional liability frameworks are built on the assumption that corporate action can ultimately be traced to identifiable people exercising human judgment.¹ The problem is not merely that algorithms can cause harm but that they can obscure who, legally, made the decision.

This growing reliance on algorithmic decision systems complicates a central function of business law: ensuring accountability within corporate governance. Corporate liability doctrines typically work by connecting wrongful acts to the company through employees, officers, or agents. Agency law assumes that decision-making

¹ See Ryan Calo, *Artificial Intelligence Policy: A Primer and Roadmap*, 51 U.C. Davis L. Rev. 399, 401-03 (2017).

authority is delegated to individuals and that responsibility follows when the corporation benefits from or fails to supervise their conduct. Fiduciary duty principles similarly assume that corporate managers can be evaluated under standards of care, loyalty, and oversight grounded in human decision-making and judgment. Algorithmic systems disrupt these assumptions. They do not form intent, cannot owe fiduciary duties, and cannot be punished or deterred directly in the way the law traditionally treats human actors. And yet corporations increasingly treat algorithmic outputs as authoritative, operationalizing them without meaningful review, and sometimes deflecting blame by framing harm as the product of “the algorithm” rather than an accountable corporate choice.

II. AUTONOMOUS DECISION-MAKING IN MODERN CORPORATIONS

Autonomous decision-making in modern corporations refers to the increasing reliance on algorithmic systems that generate predictions and recommendations that directly shape business decisions. Unlike traditional software tools that assist employees with administrative tasks, contemporary machine learning systems are often used to guide decisions that determine opportunities, risks, and resource allocation at scale. In practice, algorithmic decision systems are now embedded across corporate operations, including hiring and performance screening, credit and insurance underwriting, pricing, advertising, targeting, fraud detection, customer service automation, and supply chain optimization. The result is that corporate decision-making is influenced not only by human managers but also by automated systems whose internal logic may be difficult to understand or explain.

A defining feature of algorithmic governance in corporate settings is its transformation of decision-making into a high-volume process. Corporate actors frequently rely on automated systems because they promise speed, consistency, and cost reduction. Yet these benefits often come with significant trade-offs. First, algorithmic systems can operate with limited transparency, particularly when they depend on complex models trained on large datasets. Second, even when a corporation maintains formal human “oversight,” meaningful review may be minimal because decision outputs are produced too quickly, too frequently, or with too much technical complexity for ordinary

employees to evaluate. Third, because these systems are frequently developed by specialized teams or external vendors, responsibility for the decision-making process can become fragmented across a chain of corporate actors, including executives who authorize adoption, engineers who design the system, compliance officials who monitor performance, and employees who implement algorithmic outputs.

This corporate reliance on automated decision systems matters because it reshapes how authority functions inside the firm. In traditional corporate governance, responsibility for major decisions can rest with managers, directors, and other identifiable employees who can be evaluated under legal standards of judgment and reasonableness. Autonomous systems complicate this structure by creating a practical shift in how corporate actions are formed: decisions become increasingly driven by statistical outputs rather than individualized reasoning. When harmful outcomes occur, such as discriminatory screening, unsafe product decisions, misleading consumer targeting, or financial harm, the corporation may argue that the harm was the unintended consequence of model behavior. As autonomous decision-making becomes more common, corporate law must confront how accountability should operate when algorithmic systems play a central role in corporate choices.²

III. EXISTING LEGAL FRAMEWORKS FOR CORPORATE LIABILITY

Corporate law has long relied on well-established doctrines to ensure that firms remain accountable for the harm they cause to third parties. Although corporations are artificial legal entities, the law treats them as acting through human agents. Responsibility is therefore assigned by attributing the conduct of employees, managers, and directors to the corporation itself. This structure reflects a foundational assumption: corporate decisions ultimately result from identifiable individuals exercising judgment, and liability can be assessed by evaluating the reasonableness of those individuals' actions.³

² See Ryan Calo, *Artificial Intelligence Policy: A Primer and Roadmap*, 51 U.C. Davis L. Rev. 399, 402-06 (2017).

³ See Stephen M. Bainbridge, *Corporate Law* 5-7 (4th ed. 2020).

Agency law provides the most basic mechanism for assigning responsibility. Under the doctrine of respondeat superior, corporations may be held liable for torts committed by employees acting within the scope of employment.⁴ The rule rests on both fairness and deterrence rationales: because firms benefit from employee conduct and control the conditions under which that conduct occurs, they must also bear the risks that accompany it. Courts routinely apply this framework to impose liability for negligence, fraud, and other harms arising from ordinary business operations. In each case, wrongdoing is traced back to identifiable actors whose conduct can be evaluated under familiar standards of intent, care, and supervision.⁵

Corporate governance doctrines reinforce this system of accountability at the managerial level. Directors and officers owe fiduciary duties of care and loyalty to the corporation and its stakeholders.⁶ The duty of care requires informed, prudent decision-making, while oversight obligations require boards to implement monitoring systems designed to detect and prevent misconduct. In *In re Caremark International Inc. Derivative Litigation*, the Delaware Court of Chancery emphasized that directors may be liable where they fail to establish reasonable reporting and compliance systems or consciously disregard known risks.⁷ These standards presuppose that corporate harm stems from failures of human judgment, whether through negligence, inattention, or disloyal conduct, and that courts can evaluate those failures using traditional legal concepts.

Together, agency law, respondeat superior, and fiduciary duty principles form the backbone of corporate accountability. They function effectively so long as corporate action can be traced to people whose intent, knowledge, and supervision can be examined. The rise of autonomous decision-making systems challenges these foundational assumptions by complicating the relationship between human judgment and corporate conduct and by raising questions

⁴ See Restatement (Third) of Agency § 7.07 (Am. L. Inst. 2006).

⁵ See Deborah A. DeMott, *When Is a Principal Charged with an Agent's Knowledge?* 13 *Duke J. Comp. & Int'l L.* 291, 296–99 (2003).

⁶ See Robert C. Clark, *Corporate Law* 123–41 (Little, Brown & Co. 1986).

⁷ *In re Caremark Int'l Inc. Derivative Litig.*, 698 A.2d 959, 970 (Del. Ch. 1996).

about whether existing doctrines remain adequate for assigning responsibility in increasingly automated environments.

IV. THE LIABILITY GAP: WHEN ALGORITHMS MAKE CORPORATE DECISIONS

The rapid adoption of autonomous decision-making systems exposes a fundamental mismatch between modern corporate practice and the legal doctrines traditionally used to assign responsibility. As discussed above, corporate liability frameworks assume that harmful outcomes can ultimately be traced to identifiable human actors whose intent, negligence, or failure of oversight can be evaluated by courts. Agency law asks whether an employee acted within the scope of employment. The fiduciary duty doctrine asks whether directors exercised reasonable care or loyalty. Oversight liability asks whether managers ignored red flags or failed to implement compliance systems. Each of these inquiries presumes that corporate action is the product of human judgment. When decisions are instead shaped by algorithmic outputs, these questions become significantly harder to answer.

Algorithmic systems complicate the attribution of fault because they do not fit comfortably within traditional categories of legal responsibility. Unlike employees or managers, algorithms do not possess intent, cannot exercise judgment in a normative sense, and cannot be deterred or punished through legal sanctions. Yet these systems may influence thousands or even millions of consequential business decisions, often with limited human intervention. For example, an automated hiring filter may screen out qualified applicants, a pricing model may produce discriminatory outcomes, or a risk-scoring system may deny credit to entire groups of consumers. In each case, the resulting harm may not stem from a discrete act by any one employee, but rather from data selection, model design, training processes, or optimization criteria embedded in the system over time. Responsibility is thus diffused across engineers, vendors, managers, and executives, making it difficult to identify a single actor whose conduct satisfies traditional standards of negligence or intent.

This diffusion of responsibility creates what scholars have described as an “accountability gap” in algorithmic governance. As Joshua

Kroll and his coauthors argue, automated systems increasingly govern important social and economic outcomes while obscuring meaningful reviews of how decisions are made or who controls them.⁸ Traditional transparency mechanisms, such as requiring explanations or documentation, may be insufficient when decision processes are technically complex or distributed across multiple organizational actors. Similarly, Ryan Calo observes that emerging forms of artificial intelligence challenge existing legal categories because they create harm that do not map neatly onto established doctrines of fault and control.⁹ Together, these insights suggest that corporate reliance on algorithmic systems risks undermining the very accountability mechanisms that corporate law is designed to enforce.

Allowing corporations to attribute harmful outcomes to “the algorithm” rather than to their own governance choices would erode a foundational principle of business law: that firms cannot escape liability simply by delegating decision-making authority.

Corporations choose whether to adopt automated systems, how those systems are designed, what data they rely upon, and how closely their outputs are monitored; these choices are managerial and strategic. Framing algorithmic outcomes as independent or accidental, therefore, obscures the fact that automation remains embedded within corporate control structures. If existing doctrines fail to recognize this reality, corporations may benefit from the efficiencies of automation while avoiding the legal consequences traditionally associated with risky or harmful conduct.

For these reasons, autonomous decision-making creates a liability gap in which harmful corporate outcomes may occur without a clear doctrinal pathway to assign responsibility. Traditional tools remain conceptually tied to human actors, while algorithmic governance diffuses causation and obscures faults. Bridging this gap requires either adapting existing doctrines or developing new frameworks that treat algorithmic systems as extensions of corporate action rather than as external or neutral technologies. The next section examines how courts and regulators have begun responding to this

⁸ See Joshua A. Kroll et al., *Accountable Algorithms*, 165 U. Pa. L. Rev. 633, 639–45 (2017).

⁹ See Ryan Calo, *Artificial Intelligence Policy: A Primer and Roadmap*, 51 U.C. Davis L. Rev. 399, 404–10 (2017).

challenge and considers emerging efforts to restore accountability in increasingly automated corporate environments.

V. EMERGING REGULATORY AND JUDICIAL RESPONSES

Although existing corporate liability doctrines struggle to address harms caused by autonomous decision-making, courts and regulators have begun to adopt traditional legal tools to confront the risks posed by algorithmic governance. Rather than treating automated systems as legally independent actors, emerging approaches increasingly view algorithmic harms as ordinary corporate conduct subject to familiar principles of consumer protection, anti-discrimination law, and managerial oversight. These responses suggest that, even in the absence of AI-specific liability doctrines, regulators are unwilling to permit corporations to evade responsibility simply because decisions are mediated through software rather than human judgment.

One important development has come through consumer protection enforcement. In the United States, the Federal Trade Commission (FTC) has repeatedly asserted that the use of algorithms does not shield firms from liability under existing unfair or deceptive practices statutes. The agency has warned that automated decision systems that produce discriminatory, biased, or misleading outcomes may violate longstanding consumer protection principles, particularly where companies fail to adequately test, monitor, or substantiate the claims made about their technology.¹⁰ By framing algorithmic harms as failures of reasonable corporate practices rather than as technical anomalies, the FTC effectively applies traditional negligence-style reasoning to automated systems, reinforcing the idea that firms remain accountable for the tools they deploy.

Courts have also begun addressing algorithmic decision-making through established anti-discrimination and employment law frameworks. When automated screening tools disproportionately exclude protected groups, judges generally analyze these systems

¹⁰ See Fed. Trade Comm'n, *Aiming for Truth, Fairness, and Equity in Your Company's Use of AI* (Apr. 19, 2021), <https://www.ftc.gov/business-guidance/blog/2021/04/aiming-truth-fairness-equity-your-companys-use-ai>.

under existing disparate impact doctrines rather than treating them as novel or as technologies exempt from scrutiny. In this way, liability turns not on whether a human personally intended discrimination, but on whether the corporation's chosen practices produced unlawful effects. This approach reflects an implicit recognition that adopting an automated system is itself a managerial decision subject to legal scrutiny. Algorithmic tools, like other business practices, must therefore comply with substantive legal standards regardless of their technological sophistication.

At the same time, policymakers have explored more proactive regulatory approaches aimed specifically at algorithmic accountability. In Europe, the European Union has enacted the Artificial Intelligence Act, which establishes risk-based obligations for organizations deploying high-risk AI systems.¹¹ The Act requires documentation, human oversight, risk management procedures, and auditability mechanisms designed to ensure that automated decisions remain reviewable and controllable. Although framed as technology regulation, these requirements mirror traditional corporate governance expectations by emphasizing supervision, monitoring, and institutional responsibility. Rather than attributing liability to algorithms themselves, the framework places compliance duties squarely on the organizations that design and deploy them.

Scholars similarly argue that algorithmic governance should be addressed through institutional accountability rather than anthropomorphizing machines. Joshua Kroll and his coauthors contend that meaningful accountability depends on structuring systems so that decisions remain contestable and reviewable within existing legal processes.¹² Their analysis suggests that the core issue is not the autonomy of algorithms but the adequacy of organizational controls surrounding their use. Together, these regulatory and scholarly responses signal an emerging consensus: autonomous systems should be treated as extensions of corporate action, not as independent sources of fault.

¹¹ See Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying Down Harmonized Rules on Artificial Intelligence (Artificial Intelligence Act), 2024 O.J. (L 1689) 1.

¹² See Joshua A. Kroll et al., *Accountable Algorithms*, 165 U. Pa. L. Rev. 633, 694–701 (2017).

Despite these developments, current responses remain fragmented. Enforcement actions are often reactive, and courts continue to rely on doctrines developed long before machine learning became widespread. While these tools provide partial solutions, they do not fully resolve the structural mismatch identified in the previous section. As a result, many commentators argue that more explicit adaptations of business law, particularly in the areas of fiduciary duties and corporate oversight, are necessary to ensure consistent accountability.

VI. PROPOSALS FOR ADAPTING BUSINESS LAW TO ALGORITHMIC GOVERNANCE

Existing legal frameworks need not be discarded to address the challenges posed by autonomous decision-making. Rather than creating entirely new categories of “algorithmic liability,” courts and lawmakers can adapt traditional doctrines to treat algorithmic systems as extensions of corporate action. Because corporations deliberately design, purchase, and deploy these tools to further their business objectives, responsibility should remain anchored to the firm itself. The central principle should be straightforward: when an algorithm decides for a corporation, the law should treat that decision as if the corporation made it directly.

First, agency principles can be clarified to explicitly encompass algorithmic systems as instruments of the firm. Traditional agency doctrine already holds corporations liable for the acts of employees and other agents acting within the scope of their authority.¹³ Courts could analogize automated systems to delegated decision-making mechanisms rather than independent actors. Just as a company cannot avoid liability by delegating decisions to a subordinate employee, it should not avoid liability by delegating decisions to software. Under this approach, algorithmic outputs would be attributed to the corporation whenever the system is integrated into business operations and used to guide corporate choices. Framing algorithms as tools of the principal preserves the deterrence and risk-allocation rationales underlying respondeat superior without requiring courts to grapple with questions of machine intent or personhood.

¹³ See Restatement (Third) of Agency § 7.07 (Am. L. Inst. 2006).

Second, the fiduciary duty doctrine should evolve to recognize algorithmic governance as a matter of managerial oversight. Directors and officers increasingly authorize the adoption of automated systems that shape core corporate functions, from hiring to pricing to risk management. These choices are not purely technical; they are strategic governance decisions that carry foreseeable legal and reputational risks. The duty of care should therefore encompass reasonable investigation, testing, and monitoring of algorithmic systems before and after deployment. Building on the oversight principles articulated in *In re Caremark International Inc. Derivative Litigation*, boards should be expected to implement compliance structures capable of detecting algorithmic bias, errors, or regulatory violations.¹⁴ A failure to establish such monitoring systems could constitute the same type of oversight failure traditionally recognized in compliance contexts such as accounting or safety regulation.

Third, regulators should encourage procedural accountability mechanisms that make automated decisions reviewable and contestable. Scholars have emphasized that meaningful accountability depends less on technical transparency and more on institutional design, specifically, whether organizations maintain documentation, audit trails, and human review processes that allow decisions to be explained and corrected.¹⁵ Requiring internal testing, impact assessments, and reporting structures would align algorithmic governance with existing compliance norms familiar in areas such as financial regulation and consumer protection. These requirements do not treat algorithms as legal subjects; instead, they reinforce the corporation's continuing responsibility for how such systems are used.

Finally, courts should resist arguments that automation diminishes corporate faults. Allowing firms to characterize harmful outcomes as “algorithmic errors” risks creating perverse incentives, enabling corporations to externalize risk while internalizing the benefits of efficiency. Business law has long rejected similar attempts to evade liability through delegation or organizational complexity. Whether a

¹⁴ See *In re Caremark Int'l Inc. Derivative Litig.*, 698 A.2d 959, 970–71 (Del. Ch. 1996).

¹⁵ See Joshua A. Kroll et al., *Accountable Algorithms*, 165 U. Pa. L. Rev. 633, 694–701 (2017).

decision is made by a manager, a committee, or a machine learning model, the decision remains a corporate act. Preserving this attribution principle ensures that the fundamental goals of corporate liability – deterrence, compensation, and responsible governance – will continue to function in an increasingly automated economy.

Taken together, these adaptations demonstrate that the challenge of algorithmic governance is not the absence of legal tools, but the need to apply existing doctrines with greater clarity and consistency. By treating automated systems as extensions of corporate authority and strengthening oversight expectations, business law can preserve accountability without resorting to speculative or technology-specific liability regimes. Such an approach maintains continuity with established principles while ensuring that corporations remain responsible for the consequences of the systems they choose to deploy.

VII. CONCLUSION

The rapid integration of autonomous decision-making systems into corporate operations marks a fundamental shift in how modern firms exercise power. Algorithms now influence decisions about hiring, pricing, lending, compliance, and risk management at a scale and speed that far exceeds traditional human processes. Yet the legal architecture of corporate responsibility has remained largely unchanged. Existing doctrines were developed on the assumption that corporate action could ultimately be traced to identifiable individuals whose intent, negligence, or failure of oversight could be evaluated by courts. As algorithmic governance becomes more prevalent, that assumption becomes increasingly strained.

This Article argues that the resulting mismatch produces a liability gap. When harmful outcomes arise from automated systems, responsibility can appear diffuse and difficult to assign. Corporations may characterize injury as the product of technical error rather than managerial choice, obscuring the fact that these systems are designed, adopted, and deployed through deliberate corporate decisions. If accepted, this framing risk will undermine core principles of business law by allowing firms to benefit from automation while avoiding accountability for its consequences. As scholars of algorithmic governance have warned, systems that

operate without meaningful institutional oversight threaten both fairness and legal reviewability.¹⁶

At the same time, the challenge of autonomous decision-making does not require abandoning traditional legal frameworks. Agency law, fiduciary duties, and oversight doctrines already provide tools that address algorithmic harm when properly applied. Treating automated systems as extensions of corporate authority rather than as independent actors preserves the foundational idea that corporations remain responsible for the risks they create. By clarifying attribution principles and strengthening monitoring expectations, courts and regulators can adapt existing doctrines to modern technological realities without inventing entirely new categories of liability.

Ultimately, business law has always evolved alongside changes in corporate organization and technology. Just as the law responded to the rise of complex managerial hierarchies and global enterprises, it must now respond to algorithmic governance. Ensuring that accountability keeps pace with automation is not merely a technical concern but a normative one: public trust in markets depends on the ability to identify who is responsible when corporate decisions cause harm. As algorithms increasingly “run the company,” the law must reaffirm a simple proposition: responsibility still runs through the corporation.

¹⁶ See Joshua A. Kroll et al., *Accountable Algorithms*, 165 U. Pa. L. Rev. 633, 639–45 (2017).

The Copywrongs of *Kadrey*: Analyzing Fair Use Doctrine with Generative AI Training

Divya Valipe

“Millions of copyrighted books, articles, essays, and poetry provide the ‘food’ for AI systems, endless meals for which there has been no bill.”

- Open letter from the Author’s Guild, 2023¹

I. INTRODUCTION

On June 25, 2025, United States District Court Judge Vince Chhabria of the Northern District of California issued summary judgment in *Kadrey v. Meta*, one of the first cases to address an increasingly relevant and controversial legal question: “Do generative artificial intelligence (AI) models infringe on copyright?”²

Large-language models (LLMs)—which are text-based generative AI models—are now commonplace. Whether it be OpenAI’s ChatGPT, Anthropic’s Claude, or Meta’s Llama, the LLM in the spotlight is *Kadrey*. Developers typically train these LLMs on copyrighted works, including books, often without the original creators’ permission.³ On face value, this training appears to violate the authors’ copyright, their exclusive right to reproduce and distribute their works.

However, not all uses of a copyrighted work infringe on an author’s copyright but instead constitute fair use. Fair use, a legal doctrine, permits “the unlicensed use of copyright-protected work” in select circumstances, limiting authors’ exclusive rights to their original

¹ Open Letter to Generative AI Leaders, Authors Guild (July 2023), <https://actionnetwork.org/petitions/authors-guildopen-letter-to-generative-ai-leaders/>

² See *Bartz et al. v. Anthropic PBC*, No. 3:24-cv-05417 (N.D. Cal. June 23, 2025) (concerning Anthropic’s downloading of plaintiffs’ books for both the creation of a central library and to train its LLM, Claude, and issuing summary judgment two days before *Kadrey*).

³ Matthew Sag, *Fairness and Fair Use in Generative AI*, 92 *Fordham L. Rev.* 1889, 1891 (2024).

works.⁴ Fair use is not freely given. Instead, each secondary (i.e., potentially infringing) use must be holistically assessed on four factors relating to its nature and impact.

In *Kadrey*, Judge Chhabria ruled in favor of Meta, which argued that training its Llama models on copyrighted materials constitutes fair use. In its evaluation of the four fair use factors, the Court found most of the factors in Meta’s favor, mainly due to the innovative nature of Llama as an LLM. However, this ruling is not the end of this issue. Not only must fair use be considered on a case-by-case basis, but the Court also found that “in many circumstances it will be illegal to duplicate copyright-protected works to train generative AI models without permission.”⁵ Thus, the reasoning behind *Kadrey’s* summary judgment is deserving of scrutiny, especially as it may shape future decisions on generative AI.

II. *KADREY V. META* AND FAIR USE

In 2023, 13 authors sued Meta for downloading their books from shadow libraries—online repositories that allow the free download of media, even if copyrighted—and using them to train its large language model, Llama.⁶

LLMs typically train on vast amounts of text, whether from articles, blog posts, books, etc., to learn the statistical relationships between words and then generate text by predicting the next word in sequences. Typically, model outputs do not match training data one-to-one.⁷ The better the training data, the better this process is able to output new creations. Model developers thus seek books to train with due to their valuable length, consistency, and higher quality

⁴ *Fair Use Index*, U.S. Copyright Off. (Aug. 2025), <https://www.copyright.gov/fair-use/>.

⁵ *Kadrey v. Meta Platforms, Inc.*, No. 3:23-cv-03417-VC (N.D. Cal. June 25, 2025).

⁶ Michelle Rademeyer & Nilofour Selvadurai, *Out from the Shadows: Developing Effective Copyright Laws for AI Training Datasets and Shadow Libraries*, J. Intell. Prop. L. & Prac. (2024), <https://doi.org/10.1093/jiplp/jpaf072>.

⁷ Injecting noise refers to model developers adding randomness during the training process, enabling the model to learn more generalizable features and produce different results, even with the same prompt. Matthew Sag, *Copyright Safety for Generative AI*, 61 Hous. L. Rev. 324–25 (2023), <https://houstonlawreview.org/article/92126-copyright-safety-for-generative-ai>.

writing.⁸ Meta initially tried to negotiate licensing deals with major book publishers to train Llama but eventually resorted to renting them from shadow libraries.

The plaintiffs, whose works were among those downloaded, sued for direct copyright infringement, arguing that Meta's reproduction of their books without permission was not a fair use.⁹ Importantly, however, upon adversarial prompting, Llama could only output minimal amounts of plaintiffs' works.¹⁰ The LLM, currently, cannot be "used to read or otherwise meaningfully access the plaintiffs' books."¹¹ Due to this, it only focuses on the training of Llama on copyrighted works rather than infringing outputs. With the presumption that the facts of the case are true, Meta argued that its downloading of texts from shadow libraries and training Llama on them was fair use.

Ultimately, on the basis of the four fair use factors, the Court, on summary judgment, found that Meta's use was fair, but not because it was personally approved. Instead, Judge Chhabria stated that "this ruling does not stand for the proposition that Meta's use of copyrighted materials to train its large language models is lawful. It stands only for the proposition that these plaintiffs made the wrong arguments and failed to develop a record in support of the right one."¹² His reasoning laid in his assessment of the four factors, including (in dicta) what he believes plaintiffs, now and in the future, should argue to win: market dilution.

A. The Four Fair Use Factors

The basis of copyright is explicitly enshrined in the Constitution, which gives Congress the right to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."¹³ By offering creators exclusive controls over copying their works, including the right to reproduce, transform, distribute,

⁸ *Kadrey*, No. 3:23-cv-03417-VC.

⁹ *Id.*

¹⁰ *Id.* Llama could only generate 50 words and punctuation marks from plaintiffs' works in 60% of tests.

¹¹ *Id.*

¹² *Id.*

¹³ U.S. Const. Art. I, § 8, Cl. 8.

or adapt the work, copyright law aims to maintain the incentive to create enriching works and ultimately benefit public knowledge.¹⁴ As such, the courts have reaffirmed that copyright is intended to be an engine of free expression and the public the primary beneficiary, even above the authors.¹⁵

To this end, copyright is not all-encompassing. From the start of copyright protection in the United States, the courts recognized that some fair use of copyrighted material is necessary to achieve copyright's purpose.¹⁶ In some circumstances, “[g]iving authors absolute control over all copying from their works would tend...to limit, rather than expand, public knowledge.”^{17, 18} Thus, in Section 107 of the Copyright Act of 1976, Congress codified the fair use limitation, stating that fair uses—such as news reporting, research, criticism, and teaching materials—did not infringe on copyright.¹⁸

In prior fair use cases involving emerging or disruptive technologies, courts ultimately tended to favor defendants, the alleged infringers, as long as their technologies did more than just regurgitate copyrighted material.¹⁹ However, there is no explicit standard for fair use, so each fair use inquiry must be case-by-case and fact-specific.²⁰ Congress set out four factors to determine whether a secondary use is a fair use; all the factors must be explored and weighed together, though the first and fourth tend to receive the most attention in fair use analyses.²¹

¹⁴ Celeste Shen, *Fair Use, Licensing, and Authors' Rights in the Age of Generative AI*, 22 Nw. J. Tech. & Intell. Prop. 164 (2024), <https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=1389&context=njtip>.

¹⁵ *Authors Guild, Inc. v. Google, Inc.*, 804 F.3d 202 (2d Cir. 2015) (“the ultimate, primary intended beneficiary is the public, whose access to knowledge copyright seeks to advance”).

¹⁶ See *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569 (1994).

¹⁷ *Authors Guild*, 804 F.3d at 202.

¹⁸ U.S.C. § 107.

¹⁹ See, e.g., *Authors Guild*, 804 F.3d at 202; Edward Lee, *Fair Use and the Origin of AI Training*, 63 Hous. L. Rev. 133 (2025), <https://houstonlawreview.org/article/147422-fair-use-and-the-origin-of-ai-training>.

²⁰ *Id.*

²¹ Celeste Shen, “Fair Use, Licensing, and Authors; Rights in the Age of Generative AI”, Nw. J. Tech. & Intell. Prop. Journal of Technology and Intellectual Property 22, no.1 (November 2024): 166, <https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=1389&context=njtip>.

The four statutory factors are the following:²²

- (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
- (2) the nature of the copyrighted work;
- (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- (4) the effect of the use upon the potential market for or value of the copyrighted work.

The first factor, the purpose and character of the use, considers whether the secondary use is transformative and commercial. To be transformative, a use must add something new, with a “further purpose or different character” to the original work, “altering the first with new expression, meaning, or message” to be distinct from it.²³ This must be balanced against the secondary use’s commercial nature, i.e., whether a work will be sold for profit. Generally, if a secondary use has a similar purpose to the original and is commercial, the first factor is unlikely to favor fair use.²⁴

The second factor considers whether the original work was expressive, i.e., a creative work like a novel, poem, or movie.²⁵

The third factor refers to the quantity and quality of the copyrighted work used. The more of the original used, especially the heart of the work, the less likely a finding of fair use.²⁶ However, the use of an entire work is not dispositive of the third factor.²⁷

The fourth factor evaluates market harm, specifically whether the secondary use can serve as a competing substitute for the original work or plausible derivatives (like movie adaptations, translations, sequels, etc.) and “deprive the rights holder of significant revenues.”²⁸ In weighing this factor, courts must consider the impact of widespread conduct of the secondary use.

²² 17 U.S.C. § 107.

²³ *Campbell*, 510 U.S. 569.

²⁴ *Andy Warhol Found. for the Visual Arts, Inc. v. Goldsmith*, 143 S. Ct. 1258 (2023).

²⁵ Fair Use Index, *supra* note 4.

²⁶ *Campbell*, 510 U.S. 569.

²⁷ Fair Use Index, *supra* note 4.

²⁸ *Authors Guild*, 804 F.3d at 202.

However, the public benefit of the use must also be considered and weighed against potential market harm.²⁹

B. *Kadrey's Summary Judgment Order*

In the *Kadrey* summary judgment order, factor two weighed in favor of the plaintiffs, while factors one, three, and four (reluctantly) were in favor of the defendants, resulting in a finding of fair use for Meta's actions, as established above.

The Court found Meta's use of copyrighted works was "highly transformative," given that its purpose was to train innovative LLMs, which differs from the purpose of the consumed works themselves.³⁰ The large difference between the secondary use and original work was enough to keep the first factor in Meta's favor despite the commercial nature of its use. Importantly, Judge Chhabria considered the downloading and training with the texts all as a single use; in doing so, he argued that "because Meta's ultimate use of the plaintiffs' books was transformative, so too was Meta's downloading of those books," though the downloading may be seen as piracy.³¹ This differs from Judge Alsup's opinion in *Bartz v. Anthropic*, a similar case to *Kadrey v. Meta*, which stated "piracy . . . is inherently, irredeemably infringing."³²

Factor two favored the plaintiffs due to the highly expressive nature of their works. Though LLMs learn only statistical relationships between words in the texts, these "relationships are the product of creative expression."³³

Factor three, however, went to Meta. Though Meta used the full works, the Court found that the amount Meta copied was reasonable due to its transformative purpose and the fact that more data (in this case, text) makes for better LLM training.

²⁹ *Google LLC v. Oracle Am., Inc.*, 141 S. Ct. 1163 (2021).

³⁰ *Kadrey*, 3:23-cv-03417-VC.

³¹ *Id.*

³² *Bartz*, No. 3:24-cv-05417.

³³ *Kadrey*, No. 3:23-cv-03417-VC.

The Court found factor four in favor of Meta due to, in its view, the plaintiffs' lack of argument for market dilution, a theory of *indirect* market substitution. Judge Chhabria stated that plaintiffs will not face harm from substantially infringing outputs from Llama since it cannot generate meaningful portions of their works. He also rejected plaintiffs' arguments that Meta's unauthorized copying precludes them from the market to license their works for AI training, as they are not legally entitled to this market.³⁴ However, he states the most cognizable harm is one of market dilution, where LLMs can enable the production of works that compete with the originals in, say, the same genre, even if the works do not directly substitute them (i.e. with a similar purpose and character); this will "flood the market" and severely harm the incentive to create.³⁵ This theory has, mainly, only been notably echoed before by the U.S. Copyright Office in a pre-publication report.³⁶ Unfortunately, to Judge Chhabria, plaintiffs barely mentioned and failed to present evidence for market dilution, and since he also found some public benefit in Llama's abilities, Meta won on factor four.

III. ANALYSIS

The Court's summary judgment ruling is inconsistent with the fair use doctrine in two notable parts of the ruling: its dismissal of Meta's piracy and its consideration of market dilution. The latter is especially significant as, if widely adopted by the courts, it would deviate from precedent and could turn the fourth factor against generative AI model developers.

A. *Transformative Use vs. Piracy*

Though the Court's finding of transformative use regarding training Llama is correct, its lack of differentiation between Meta

³⁴ Judge Chhabria, along with others, views this argument as circular: "[T]he use is unfair if there is a lost licensing opportunity, but there is only a lost licensing opportunity if the use is unfair." Mark Lemley & Bryan Casey, *Fair Learning*, 99 Tex. L. Rev. (2021), <https://texaslawreview.org/fair-learning/>.

³⁵ *Kadrey*, No. 3:23-cv-03417-VC.

³⁶ U.S. Copyright Off., *Copyright and Artificial Intelligence Part 3: Generative AI Training* 32–35 (2025), <https://www.copyright.gov/ai/Copyright-and-Artificial-Intelligence-Part-3-Generative-AI-Training-Report-PrePublication-Version.pdf>.

downloading pirated works and training Llama on them deserves scrutiny.

Overall, Meta’s use of the copyrighted works to train Llama had a further purpose and different character than the works themselves; the purpose was to create a generative AI model, while the character was one of computational analysis to identify statistical relationships in language.³⁷ The resulting LLM can do a variety of tasks in addition to generating creative works, including writing emails, making itineraries, analyzing data, etc., all of which differ from the function of the copyrighted books.³⁸ Accordingly, Meta’s use is transformative, enough to outweigh its commercial nature.

However, the transformative nature of Meta’s training does not mean its downloading of pirated books should automatically be transformative. Judge Chhabria views Meta’s actions, essentially, as one infringement, stating the “whole point of fair use analysis is to determine whether a given act of copying was unlawful” when considering Meta’s (so-called, in his view) piracy.³⁹ However, multiple points of copying occurred, which Judge Chhabria acknowledges. First, Meta downloaded pirated texts and then—at the very least—copied them into training data and abstracted them into statistical representations.⁴⁰ These are different uses of the same copies and thus may deserve separate analyses on their purpose, nature, and potential harm; as Judge Alsup reiterated in *Bartz*, courts have reaffirmed that intermediate copying can infringe even if the end product does not, which runs contrary to lumping all acts of copying into one use.⁴¹

Fair use is not intended to serve as a defense for piracy. This legal doctrine allows for secondary use of original works without the author’s permission, not for people to bypass legal acquisition

³⁷ Lee, *supra* note 19, at 168–69.

³⁸ *Id.*

³⁹ *Kadrey*, No. 3:23-cv-03417-VC.

⁴⁰ In *Bartz*, No. 3:24-cv-05417, Judge Alsup wrote of how each work for training was copied in four main ways. Each work was: (1) copied to be a working copy for training; (2) cleaned; (3) turned into a statistically abstracted, or tokenized, copy; (4) retained as compressed copies in the fully trained LLM. While these steps may not have been exact for Llama, a different LLM than Anthropic’s Claude, its training process likely also contained multiple steps with different copies.

⁴¹ *Bartz*, No. 3:24-cv-05417.

entirely, especially when there are other means of accessing texts. Meta could have continued pursuing licenses to use authors' texts, sought partnerships with libraries (as done in *Authors Guild v. Google*), or purchased and scanned used copies, which Anthropic eventually did (see *Bartz*). Any person who copies from a pirating website has already participated in copyright infringement because their copy was illegally acquired. As Judge Alsup stated, it is difficult to believe that a developer "[d]ownloading source copies from pirate sites that it could have purchased or otherwise accessed lawfully was itself necessary to any subsequent fair use."⁴²

The Court essentially takes on an ends-justify-the-means argument when allowing for Meta's piracy due to its "ultimately, highly transformative purpose."⁴³ This sort of argument is common in fair use cases, but the Court incorrectly analogizes its finding to that of *Authors Guild v. Google*.⁴⁴ In that case, Google partnered with research libraries and made digital copies of their books to create a digital searchable database, all without authors' permissions. There, the Second Circuit found that Google's copying of the works was fair use because they were ultimately used to create a searchable database, which was transformative.⁴⁵ In Judge Chhabria's view, that creation of digital copies is akin to Meta's downloading of pirated books.⁴⁶ However, there are notable differences between the two cases' circumstances. For one, Google could not have created a searchable database of the books in its partner libraries without first having a digital copy of them.⁴⁷ To make a searchable database that includes a certain book, that book must be digitized; the ends and means here are inextricable. This is not the case for a general-purpose LLMs such as Llama. LLMs can be trained on non-copyrighted works or without books; technically, a base LLM has no intrinsic need for copyrighted books, especially one enough to justify pirating them without exhausting all alternatives.⁴⁸ Even more

⁴² *Id.*

⁴³ *Kadrey*, No. 3:23-cv-03417-VC.

⁴⁴ "[F]air use is, in many respects, a doctrine in which the ends justify the means." Lee, *supra* note 19, at 217.

⁴⁵ *Authors Guild*, 804 F.3d at 202.

⁴⁶ *Kadrey*, No. 3:23-cv-03417-VC.

⁴⁷ While digital copies of the texts may have existed from publishers in the form of eBooks (though unlikely as Google first started digitizing books in 2004), these files may have still needed to be converted to allow them to be searchable. Google making its own digital copies to fit its specific needs appears reasonable.

⁴⁸ Jeffrey Greenbaum, *When Should Training an AI Model Prevail Against*

significantly, Google made digital copies of books that its partner libraries already had; its initial copies were *legally acquired* and did not themselves infringe. Google’s starting point, then, was with already purchased copies; Meta’s was not.

This is not to say, however, that every single use of pirated works should be categorically irredeemable, as Judge Alsup indicated in *Bartz*.⁴⁹ Bright-line rules such as this tend to go against fair use’s flexible nature.⁵⁰ Still, the Court did not take the extra step to analyze intermediate copies and brushed past the illegality of Meta’s initial acquisition of the copyrighted works. The result is that Meta does not pay anything for any copies, allowing for transformative ends to justify illicit means without sufficient scrutiny.

B. On Market Dilution

In the face of the plaintiffs’ losing arguments for the fourth factor—possibly-infringing outputs and preclusion from a licensing market—the Court endorses market dilution, a flawed expansion of market harm. The order essentially holds that LLMs like Llama, though transformative, would have too great an effect on the market for original, copyrighted works by *indirectly* substituting them. LLMs, in the Court’s view, can quickly generate works that take sales from books or flood the marketplace, so they do not receive notice or purchase, reducing the incentive for authors and running contrary to copyright’s purpose.

However, copyright law does not intend to stop competition. A copyright is a monopoly on one’s exclusive work and the market for that exact work, not for the general economic market where it exists. Copyright holders do not have the right to “monopolize methods for creation or to prevent general competition in the market presented by non-infringing but competing works;” general competition, simply, is not copyright’s concern.⁵¹ Furthermore, each work has its own market, as there are different genres, sub-genres, and niches; the “flooded market” considered should be the market for each specific work, not just the marketplace writ large, if model outputs

Copyright Infringement, 77 Okla. L. Rev. 841 (2025).

⁴⁹ *Bartz*, No. 3:24-cv-05417.

⁵⁰ Lee, *supra* note 19, at 225.

⁵¹ *Id.* at 191.

are to be substitutes. And to assume that each of, in this case, the plaintiffs' specific markets are affected by AI outputs just because their works are included in Llama does not align with prior case law, which states that when "[t]he secondary use is transformative, market substitution is at least less certain, and market harm may not be so readily inferred."⁵² Transformative uses may indeed harm markets for existing works, but this is typically not a cognizable harm.⁵³

The Court takes a broad view of the plaintiffs' current and future markets, similar to an expansion of market harm. Judge Chhabria describes, for example, how if someone bought a romance novel written by an LLM instead of one by a human author, the LLM-generated novel (problematically) substitutes the human-written one.⁵⁴ In principle, however, this is generally true of authors who take inspiration from existing works. Copyright aims to prevent others from usurping a work's expressive elements, from closely resembling it so that people will no longer purchase the original.⁵⁵ This does not extend to, for example, someone reading a work in science fiction and writing a better sci-fi novel afterwards. Creators influence each other all the time. Their new creations—no matter if they have the same tropes or exist in the same genre—are fundamentally a diversifying rather than dilutive force in the market. Even when considering this occurrence at scale, which seems to be the Court's main concern with an emphasis on the countless works LLMs can quickly output, case law undermines dilution. While the courts must consider the impact of the secondary use should it become widespread (whether it be diminishing sales, interfering with marketability, or usurping the market), the "same consequences do not and could not attach to a use which simply enables the copier to enter the market for works of the same type as the copied work."⁵⁶

Furthermore, if courts truly consider market dilution, plaintiffs and defendants must address multiple complex questions, which the Court details. First, is the LLM in question capable of generating books (in this case), including in terms of typical length and style? Second, can or do the AI-generated works actually compete with the

⁵² *Campbell*, 510 U.S. 569.

⁵³ Lee, *supra* note 19, at 194.

⁵⁴ *Kadrey*, No. 3:23-cv-03417-VC.

⁵⁵ Lee, *supra* note 19, at 190–91.

⁵⁶ *Sega Enters. Ltd. v. Accolade, Inc.*, 977 F.2d 1510 (9th Cir. 1992).

plaintiffs' specific works?⁵⁷ Third, what is the extent of the impact of this competition, and will it increase in the future? And fourth, how does this impact compare to a world where LLMs still exist, but model developers cannot copy plaintiffs' books? This sort of analysis, effectively, will require courts to decide what counts as a high-quality LLM, what model outputs count as unfair competition, how much of a decrease in sales is attributable to LLMs, and how much of this market dilution is due to LLMs copying plaintiffs' books versus LLMs generally existing. With difficulties in proving causation inevitable and conflicting expert testimony likely, establishing such standards may be arduous. The feasibility, in addition to the legality, of market dilution is thus questionable.

Finally, the Court gives only minimal weight to the public benefits of LLMs, losing sight of the true intended beneficiary of copyright law: the public. In the fair use calculus, courts must account for the public benefits copying will likely produce, including if they are related to copyright's concern of creating new expression and their relative importance compared to the dollars potentially lost.⁵⁷ Despite reiterating that LLMs can generate countless new works—all of which can be forms of new, creative expression—the Court only finds public considerations to “slightly favor” Meta.⁵⁸ Yet the public significantly benefits from high-quality LLMs, whether in the development of creative works, research, software code, etc. Through concentrating scrutiny on the widespread production of new works and their potential to harm authors' incentive to create, the Court neglects that the fundamental goal of copyright, of preserving that incentive, is to promote the progress of science, useful arts, and public knowledge.⁵⁹ LLMs like Llama work towards this goal, which the Court appears to only half-heartedly acknowledge. Even in the face of evidence of direct substitution, these sorts of public benefits from transformative use can still win defendants the fourth factor.⁶⁰ Ultimately, the public is the true stakeholder in copyright law, so its benefits from LLM outputs—though not solely determinative—must play a notable role in assessing fair use.⁶¹

⁵⁷ *Google LLC*, 141 S. Ct. at 1163.

⁵⁸ *Kadrey*, No. 3:23-cv-03417-VC.

⁵⁹ Shen, *supra* note 14, at 164.

⁶⁰ Greenbaum, *supra* note 48, at 836.

⁶¹ Lee, *supra* note 19, at 194–95.

The Court's worries, overall, of market dilution are not uncalled for, but the judicial solution deviates far from precedent. Generative AI models do have the potential to flood the market with thousands, even millions, of new works, but that does not mean courts can bend current copyright protections to staunch the flow. This era of technology, and its confrontation with copyright, is indeed unprecedented, but expanding market harm to market dilution is more befitting of an act of Congress than a court decision. Congress could, of course, pass legislation restricting generative AI from fair use protections, but until then, the Court's decision does not truly align with copyright and related case law.⁶² Still, the wide adoption of market dilution is not impossible, pushing us further into uncharted territories.

IV. IMPLICATIONS

The future of copyright in the face of generative AI is still unclear. The Court's summary judgment order, especially the discussion of market dilution, conflicts with other judicial perspectives (namely Judge Alsup's in *Bartz*) and could either be adopted or rejected by higher courts. While *Kadrey* illustrates what possible futures may look like with and without market dilution, it does not definitively resolve this issue nor other potential areas of copyright infringement that involve generative AI.

If the courts do accept market dilution, model developers may often lose on the fourth factor, like Judge Chhabria anticipates, since their technologies can produce indirectly competing works. To avoid liability for copyright infringement, developers will generally need to pay copyright holders for the rights to use their work as training data, i.e., licensing their works.⁶³ The federal government could even establish a licensing mandate, though it would likely be difficult to administer with the millions, even billions, of copyrighted works models train on.⁶⁴ Regardless of exactly how and why, developers will have to enter into huge licensing agreements, many of which will

⁶² Christopher Zirpoli, *Generative Artificial Intelligence and Copyright Law*, Cong. Rsch. Serv., LSB10922 (2025).

⁶³ *Kadrey*, No. 3:23-cv-03417-VC.

⁶⁴ Pamela Samuelson, *Fair Use Defenses in Disruptive Technology Cases*, 71 UCLA L. Rev. 1484, 1565 (2024), <https://www.uclalawreview.org/fair-use-defenses-in-disruptive-technology-cases/>.

be worth multiple millions of dollars, to create competitive models.⁶⁵ This will likely impose significant barriers to entry for startups or smaller generative AI developers, who cannot afford these licensing agreements compared to the largest, incumbent technology companies, and potentially hamper competition.⁶⁶ The consequences of a market dilution precedent could also extend beyond the AI space, impacting future fair use cases (or even patent law) with the acceptance of indirect substitution constituting market harm.

However, if market dilution does fail—which is more consistent with case law—the worst-case scenario Judge Chhabria alludes to of markets inundated with AI-generated content and the disappearance of human creation is unlikely to pan out. For starters, many of the big tech companies, like OpenAI, Microsoft, Amazon, and Google, entered and continue to enter into licensing deals with publishers and other content providers since 2023.⁶⁷ This trend is likely to continue even if market dilution is rejected, especially so developers can avoid legal ramifications for piracy like Anthropic, which settled with authors for \$1.5 billion, faced.⁶⁸ Furthermore, the U.S. Copyright Office (USCO) has rejected that AI-generated works without significant human input can be copyrightable.⁶⁹ Purely AI-generated works are unlikely to be truly profitable if the USCO decision stands, as they too can be re-created, and creators will lack legal ownership over their expressive nature. Thus, an overwhelming replacement of human-made creative work with AI-generated ones is unlikely to manifest, especially in the face of other constraints like

⁶⁵ Michael D. Murray, *AI Training Is Fair Use: The Beginning of the End of the Copyright Assault on Gen AI 5* (2025) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5395242.

⁶⁶ Samuelson, *supra* note 64, at 1568.

⁶⁷ *AI Content Licensing Deals: Where OpenAI, Microsoft, Google, and Others See Opportunity*, CB Insights (2025), <https://www.cbinsights.com/research/ai-content-licensing-deals/>.

⁶⁸ Anthropic settled with the authors in *Bartz* after Judge Alsup ruled that its pirating of works to construct a central research library was not fair use. While many fair use cases do not involve defendants creating a central library/research repository of copyrighted works, liability for piracy may still be a general concern. Chloe Veltman, *Anthropic Settles with Authors in First-of-its-Kind AI Copyright Infringement Lawsuit*, NPR (2025), <https://www.npr.org/2025/09/05/nx-s1-5529404/anthropic-settlement-authors-copyright-ai>.

⁶⁹ U.S. Copyright Off., *Copyright and Artificial Intelligence Part 2: Copyrightability* (2025), <https://www.copyright.gov/ai/Copyright-and-Artificial-Intelligence-Part-2-Copyrightability-Report.pdf>.

consumer preferences and the time and effort necessary to recreate human quality works to exact individual tastes.

Beyond market dilution, there also lies the question of cases with infringing outputs. *Kadrey* only considered copyright infringement regarding LLM inputs as there was little evidence that Llama's outputs substantially resembled copyrighted works.⁷⁰ However, in other lawsuits, such as *New York Times v. Microsoft*, plaintiffs allege that outputs can mimic and directly substitute for their copyrighted inputs.⁷¹ These sorts of outputs have a higher likelihood of undermining developers' fair use defenses, though possibly only on a use-by-use basis (i.e., uses of specific copyrighted works are illegal but not model training writ large).⁷²

Overall, however, even some infringing outputs may not sink LLMs.⁷³ Model developers often implement guardrails to minimize copyright infringement, such as refusing to provide users with segments of copyrighted works when prompted.⁷⁴ While emerging research suggests that these guardrails can fail to prevent reproductions of copyrighted works—with and without jailbreaking—AI researchers are also actively working to improve output alignment with copyright.⁷⁵ Even if some users can get around the guardrails, attempts to protect copyrighted content, as long as they are substantial, tend to weigh in defendants' favor, such as in

⁷⁰ *Bartz's* summary judgment also did not concern model outputs. See *Bartz*, No. 3:24-cv-05417.

⁷¹ See *The New York Times Co. v. Microsoft Corp.*, No. 1:23-cv-11195 (S.D.N.Y. Dec. 27, 2023).

⁷² See, e.g., *Authors Guild*, 804 F.3d at 181; Edward Lee, *Fair Use and the Origin of AI Training*, 63 Hous. L. Rev. 133 (2025), <https://houstonlawreview.org/article/147422-fair-use-and-the-origin-of-ai-training>.

⁷³ This discussion mainly applies only to LLMs, as generative-image models appear to be more susceptible to reproducing copyrighted content (i.e., notable trademarked figures). See *Sag*, *supra* note 7, at 327–28.

⁷⁴ *Sag*, *supra* note 3, at 1920.

⁷⁵ Ahmed Ahmed et al., *Extracting Books From Production Language Models*, arXiv:2601.02671, at 19 (2026), <https://arxiv.org/abs/2601.02671>; Denghui Zhang et al., *LLMs and Copyright Risks: Benchmarks and Mitigation Approaches*, in Proceedings of the 2025 Annual Conference of the Americas Chapter of the Association for Computational Linguistics: Human Language Technologies 44, 44–50 (2025), <https://aclanthology.org/2025.naacl-tutorial.7.pdf>; Aakash Sharma et al., *Nine Ways to Break Copyright Law and Why Our LLM Won't: A Fair Use Aligned Generation Framework*, arXiv:2505.23788 (2025),

Authors Guild.⁷⁶ Furthermore, generative AI developers may have a Sony safe harbor defense, shielding them from secondary liability of infringing outputs since their technologies (which tend to be general purpose) are capable of substantial, non-infringing uses.⁷⁷ Thus, copyright infringement claims involving generative AI, especially LLMs, may best succeed against individual end-users who purposefully use the technology to generate infringing works rather than the model developers themselves, barring a notable lack of model guardrails.⁷⁸

As case law stands now, there is no guaranteed outcome for copyright cases involving generative AI. Courts continue to debate the nuances of fair use, which could change with the introduction of novel cases or ideas, such as Judge Chhabria's market dilution theory. Amidst this uncertainty, the near future will most likely continue to consist of developer-creator voluntary licensing deals, the growth of generative AI, and legal controversy, perhaps all the way to the Supreme Court. Until then or Congressional action, copyright holders and developers remain only with the outcomes of current lower court cases like *Kadrey v. Meta*, or *Bartz*, to guide their paths forward.

V. CONCLUSION

Kadrey v. Meta is one of the first court cases to address whether generative AI model developers can train models on copyrighted works under the fair use doctrine. Judge Chhabria ultimately offered a win for developers in his summary judgment order, but his ruling far from settles the issue. Defying precedent ranging from *Campbell* to *Google*, the Court endorsed a new theory of market dilution that stretches copyright protections beyond their limits, alongside brushing past developers' potential piracy. While not the end of the fair use quandary in generative AI—especially amidst ongoing developments in licensing and other cases involving infringing outputs—*Kadrey* potentially marks a shift in the courts against

⁷⁶ Lee, *supra* note 19, at 211. In *Authors Guild*, the Second Circuit noted that “Google has constructed the snippet feature in a manner that substantially protects against its serving as an effectively competing substitute for Plaintiff’s books.” *Authors Guild*, 804 F.3d at 202.

⁷⁷ Samuelson, *supra* note 64, at 1555.

⁷⁸ Lee, *supra* note 19, at 181, 199.

emerging technologies. Leaving behind more questions than answers, *Kadrey v. Meta* ultimately continues to strengthen the storm of legal controversy around generative AI.

Untangling the *Alice* Decision: The Wonderland of Patents

Rena Chang

“Artificial intelligence patents have become the new battleground for technological innovation, with companies rushing to protect their AI breakthroughs in an increasingly competitive landscape.”

- Thompson, 2025¹

I. INTRODUCTION

The only thing certain about patent eligibility is its uncertainty. The Supreme Court case, *Alice Corp. v. CLS Bank*, can be partially blamed for this. With a decision that created an “almost impossible to apply consistently and coherently” test, *Alice* leaves behind a two-step eligibility framework for patent applications.² The framework, the Alice/Mayo Test, begins with a somewhat straightforward question: Does your patent claim direct towards an abstract idea?³ If the answer is no, congratulations, the claim is patent eligible.⁴ However, for the majority who fail this step, the Alice/Mayo Test requires a deeper dive into the elements of the invention.⁵ Separately and as a whole, the elements of the invention must transform it away from being abstract.⁶ But what is an abstract idea, and more importantly, what constitutes “abstract”? The answer: no one has a clue. While the United States Patent and Trademark Office (USPTO) defines it as mathematical concepts, certain methods of organizing human activity, and mental processes, the legal definition of an abstract idea still lacks a set meaning.⁷ The

¹ Craig Thompson, *Eligibility for Artificial Intelligence Patents*, Thompson Pat. Law (2025), <https://thompsonpatentlaw.com/eligibility-artificial-intelligence-patents/>.

² Dan Lechleiter, Reid Dodge & Kendall Griffin, *Alice in Wonderland: The Uncertain State of Patent Eligibility*, Ind. Law. (Dec. 11, 2018), <https://www.theindianalawyer.com/articles/48913-lechleiter-dodge-and-griffin-alice-in-wonderland-the-uncertain-state-of-patent-eligibility>.

³ U.S. Patent & Trademark Office, Manual of Patent Examining Procedure § 2106 (Oct. 2024), <https://www.uspto.gov/web/offices/pac/mpep/s2106.html>.

⁴ *Id.*

⁵ *Id.*

⁶ *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (2014).

⁷ U.S. Patent & Trademark Office, Manual of Patent Examining Procedure § 2106 (Oct. 2024), <https://www.uspto.gov/web/offices/pac/mpep/s2106.html>.

consequences lead to disagreements between patentees, patent attorneys, federal judges, and even the USPTO.⁸

This Note argues that the *Alice Corp. v. CLS Bank* decision was wrong as it failed to provide a clear standard for patent eligibility. Rather, it restricted future patenting of AI innovations. A better standard for patent eligibility comes from the Patent Eligibility Restoration Act of 2023 (PERA), which intended to combat the flaws left by *Alice*.⁹ Part II of this Note will cover the *Alice Corp. v. CLS Bank* case and the Alice/Mayo test, which replaced the Machine-and-Transformation test set before this case. Part III of this Note will examine the harm caused by the case's decision to AI technologies, and Part IV will discuss Congress's PERA bill. Part V will highlight some concerns with PERA and counterarguments. Part VI will conclude.

II. THE PATENTLAND DILEMMA

Before *Alice*, patent eligibility was governed by three notable frameworks: the machine-or-transformation test, the ruling in *Bilski v. Kappos*, and the case of *Mayo Collaborative. v. Prometheus Laboratory*. The machine-or-transformation test was the first major patent eligibility standard used by the Supreme Court.¹⁰ Under this test, any inventions seeking a patent must be tied to a machine/apparatus or convert an item to a new state/form.¹¹ However, the ruling of *Bilski v. Kappos* concluded that the test should not be the sole determinant of patent eligibility.¹² Following this ruling, *Mayo Collab. v. Prometheus Lab* began a new two-part patent test that would be finalized after *Alice*.¹³ The case established the first step of the Alice/Mayo framework, which is to assess whether a patent is directed at an abstract idea or laws of natural phenomenon.¹⁴

⁸ Michael Borella, "What Is an Abstract Idea, Anyway?" *Patent Docs*, March 1, 2020. <https://www.patentdocs.org/2020/03/what-is-an-abstract-idea-anyway.html>.

⁹ Patent Eligibility Restoration Act of 2023, S. 2140, 118th Cong. (2023).

¹⁰ *What Is the Difference Between "Transformative Test" and "Machine-or-Transformation Test" in Patent Law?*, Wysebridge Pat. Bar Rev. (Aug. 10, 2023), <https://wysebridge.com/what-is-the-difference-between-transformative-test-and-machine-or-transformation-test-in-patent-law>.

¹¹ *Gottschalk v. Benson*, 409 U.S. 63 (1972).

¹² *Bilski v. Kappos*, 561 U.S. 593 (2010).

¹³ *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66 (2012).

¹⁴ Matthew Sked, *35 U.S.C. § 101 – Subject Matter Eligibility: USPTO Guidance and Policy*, U.S. Patent & Trademark Office (Feb. 15, 2022),

The latest confusion in understanding patent eligibility comes from a 2009 lawsuit in the United States District Court for the District of Columbia.⁶ Alice Corporation proposed several patents for a computer system facilitating settlement risks between two parties.¹⁵ CLS Bank filed suit against Alice Corp., stating the patent claims were invalid and drawn from ineligible subject matter.⁷ Ultimately, the District Court sided with CLS Bank because the claims were directed to an abstract idea, and had failed the machine-or-transformation test.¹⁶ The Court deemed that a computer does not constitute a machine and the claims did not involve any transformations.¹⁷ The Federal Circuit en banc affirmed the District Court's decision after determining the claims did not apply any specific methods that would deter it from an abstract idea.¹⁸

The majority opinion of the Supreme Court, written by Justice Thomas, reaffirmed the Federal Circuit's judgment.¹⁹ The Court addressed how the invention included a basic risk management strategy taught in introductory economics. The Court reasoned that computer systems would eventually handle this basic economic concept.²⁰ Therefore, implementing an abstract idea on a computer did not make the claims patentable.²¹

The result of *Alice Corp.* left the USPTO with a new framework for patent eligibility. The USPTO used the cases of *Alice* and *Mayo* to create a two-step subject matter eligibility test.²² The first step is to determine if the claim is a process, machine, manufacture, or composition of matter.²³ Once the court decides the claims do not fit any statutory categories listed above, it is automatically considered

https://www.uspto.gov/sites/default/files/documents/MWRO_101_Eligibility_OPLA.pdf.

¹⁵ *Alice Corp.*, 573 U.S. 208.

¹⁶ *Id.*

¹⁷ *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, No. 07-974 (RMC) (D.D.C. Oct. 13, 2009).

¹⁸ *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 667 F.3d 1343, 1363 (Fed. Cir. 2012).

¹⁹ *Alice Corp.*, 573 U.S. 208.

²⁰ *Id.* at 2356.

²¹ *Id.* at 2356.

²² U.S. Patent & Trademark Office, Manual of Patent Examining Procedure § 2106 (Mar. 2025), <https://www.uspto.gov/web/offices/pac/mpep/s2106.html>.

²³ U.S. Patent & Trademark Office, 35 U.S.C. § 101: *Statutory Requirements and Four Categories of Invention* 9 (2019).

not patent-eligible subject matter.²⁴ After passing step one, step two brings in the question of whether the claim is directed to a “law of nature, natural phenomenon, or abstract idea.”²⁵

The case of *Alice Corp.* has refined this step to include examples of what constitutes abstract: scientific/technological work, mental processes, mathematical algorithms, and natural phenomena.²⁶ Furthermore, the decision in the case included an additional step after determining abstractness. Courts must also determine if elements (both individually and as a whole) from the claims transform the invention beyond an abstract idea.²⁷ With the increasing prevalence of technology, this Supreme Court case has had significant implications for companies seeking to patent their innovations.

III. CONFUSION DOWN THE ALICE RABBIT HOLE

Following *Alice Corp. v. CLS Bank*, the Supreme Court set an unclear precedent on the legal requirements for patent eligibility. In particular, AI inventions suffered as rejections after *Alice* skyrocketed.²⁸ Subsequently, this caused a domino effect, leading to a loss of investments and innovations for key industries.²⁹ The decision in *Alice Corp. v. CLS Bank* left more to be desired, as extensive confusion and uncertainty formed regarding patent eligibility.

One of the major gaps created is the immediate dismissal of patents during the early stages of determining eligibility. Courts may dismiss inventions solely based on patent-ineligible subject matter without further evidence.³⁰ After *Alice*, 365 motions to dismiss were filed,

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Alice Corp.*, 573 U.S. at 2360.

²⁸ U.S. Patent & Trademark Office, *Adjusting to Alice* (2020), https://www.uspto.gov/sites/default/files/documents/OCE-DH_AdjustingtoAlice.pdf.

²⁹ *Patent Eligibility Restoration Act: Restoring Clarity, Certainty, and Predictability to the U.S. Patent System: Hearing Before the S. Comm. on the Judiciary*, 118th Cong. 2–3 (2024) (responses of Hon. David J. Kappos to questions for the record).

³⁰ *Patent Eligibility Restoration Act: Restoring Clarity, Certainty, and Predictability to the U.S. Patent System: Hearing Before the S. Comm. on the*

with an increase of 28 percent in the success rate of granting those motions compared to pre-*Alice*.³¹ Under the *Alice*/Mayo test, many petitioners are rejected solely because their innovations are associated with an “abstract” idea. Chief Judge Moore puts this perspective into view by stating “[s]ince Mayo, we have held every single diagnostic claim in every case before us ineligible.”³² Similarly, the AI field has been subjected to the same treatment. The confusion surrounding how courts should address patents for technology has halted computer-implemented innovations.³³ Without a clear set of eligibility, lower courts look towards the Supreme Court’s broad ruling of *Alice* for addressing patents in the technology field.³⁴ This leads to the meticulous application of *Alice*, resulting in rejected patents simply because the claims involved areas of technology.³⁵ Ultimately, this leaves little to no incentive for innovation or progress, as patents are essential in protecting innovators’ work.

Another major gap created by *Alice* is the uncertainty of the term “judicial exceptions.” Judicial exceptions are categories that fit into patent law but are considered not patentable.³⁶ The three categories are “laws of nature, natural phenomena, and abstract ideas.”³⁷ To be straight, it is a “guessing game” of how to apply these exceptions to future cases without causing uncertainty.³⁸ Specifically in cases

³⁰*Judiciary*, 118th Cong. 9 (2024) (responses of Courtenay C. Brinckerhoff to questions for the record).

³¹ Sanford Warren, *Update on Alice and Motions to Dismiss*, IRMI (Sept. 21, 2018), <https://www.irmi.com/articles/expert-commentary/update-on-alice-and-motions-to-dismiss>.

³² *Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC*, 915 F.3d 743, 746 (Fed. Cir. 2019).

³³ *Patent Eligibility Restoration Act: Restoring Clarity, Certainty, and Predictability to the U.S. Patent System: Hearing Before the S. Comm. on the Judiciary*, 118th Cong. 1 (2024) (responses of Hon. David J. Kappos to questions from Sen. Blackburn for the record).

³⁴ *The Patent Eligibility Restoration Act – Restoring Clarity, Certainty, and Predictability to the U.S. Patent System: Hearings Before the Senate Judiciary Committee*, 118th Cong.

³⁵ *INO Therapeutics LLC v. Praxair Distribution Inc.*, 782 F. App’x 1001, 1017 (Fed. Cir. 2019) (Newman, J., dissenting).

³⁶ U.S. Patent & Trademark Office, 35 U.S.C. § 101: Statutory Requirements and Four Categories of Invention (2019), https://www.uspto.gov/sites/default/files/101_step1_refresher.pdf.

³⁷ *Id.* at 8.

³⁸ *Patent Eligibility Restoration Act: Restoring Clarity, Certainty, and Predictability to the U.S. Patent System: Hearing Before the S. Comm. on the Judiciary*, 118th Cong. 9 (2024) (testimony of Hon. Andrei Iancu).

involving AI and software, the entire category of this industry has been deemed ineligible for patents due to the broad application of judicial exceptions.³⁹ These industries are at risk of becoming generalized and rejected simply for being in those categories.⁴⁰ Additionally, the lack of concise patent rights has caused the United States to fall behind in technological advancements compared to other countries such as China.⁴¹ While patents in the U.S. fall short, companies find success in patenting in other countries, leading to capital investments lost for key industries.⁴² This is highlighted by the fact that “\$15.2 billion invested in AI startups globally in 2017, 48 percent went to China and just 38 percent to America.”⁴³ On top of this, the domino effect led to a loss of “nearly \$9.3 billion” in investments in disease diagnostic technologies.⁴⁴ The Honorable David Kappos highlights how investments dropped from “77 percent” compared to “50 percent” after *Alice*.⁴⁵

IV. TEA PARTY CLARITY WITH PERA

In light of the issues created by *Alice Corp v. CLS Bank*, Congress introduced a bill titled the “Patent Eligibility Restoration Act of 2023.”⁴⁶ PERA aims to reform patent eligibility by filling the gaps left by *Alice*. As previously discussed, PERA will clearly define what is

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ *Patent Eligibility Restoration Act: Restoring Clarity, Certainty, and Predictability to the U.S. Patent System: Hearing Before the S. Comm. on the Judiciary, 118th Cong. 3 (2024)* (responses of Courtenay C. Brinckerhoff to questions for the record).

⁴² *Patent Eligibility Restoration Act: Restoring Clarity, Certainty, and Predictability to the U.S. Patent System: Hearing Before the S. Comm. on the Judiciary, 118th Cong. 2 (2024)* (responses of Hon. David J. Kappos to questions for the record).

⁴³ Jackie Snow, *China's AI Startups Scored More Funding than America's Last Year*, MIT Tech. Rev. (Feb. 14, 2018), <https://www.technologyreview.com/2018/02/14/145616/chinas-ai-startups-scored-more-funding-than-americas-last-year/>.

⁴⁴ A. Sasha Hoyt, *The Impact of Uncertainty Regarding Patent Eligible Subject Matter for Investment in U.S. Medical Diagnostic Technologies*, 79 Wash. & Lee L. Rev. 397 (2022).

⁴⁵ *Patent Eligibility Restoration Act: Restoring Clarity, Certainty, and Predictability to the U.S. Patent System: Hearing Before the S. Comm. on the Judiciary, 118th Cong. 3 (2024)* (responses of Hon. David J. Kappos to questions for the record).

⁴⁶ S. 2140, 118th Cong. (2023).

not patentable, eliminate all judicial exceptions, and bring clarity to inventions with non-patentable elements that may still be patented.⁴⁷

PERA will separate patent requirements from patent eligibility.⁴⁸ Patent requirements are the criteria that claims must meet. The claims have to be new, non-obvious, and useful.⁴⁹ Patent eligibility refers to the subject matter of the claims, which includes process, machine, manufacture, and composition of matter.⁵⁰ This non-obvious prong of patent requirement fuses both eligibility and requirement, which makes it mandatory for claims to include an “inventive concept” to avoid patent ineligibility.⁵¹ PERA directly separates this fusion by listing what is not considered during patent eligibility.⁵² The bill states that, in general, eligibility will consider the claim as a whole and all claim elements.⁵³ However, factors such as how the invention was created, whether a claim element is common/already known, the date of the invention, or any other considerations from the patent requirement will not be considered in eligibility.⁵⁴ This will allow innovations that involve potential “abstract ideas” to fit into one of the broad patent eligibility categories and ensure that they will not be rejected without thoroughly considering all elements.⁵⁵

Most importantly, PERA will eliminate the confusing “judicial exceptions,” creating a more concise patent eligibility standard. PERA outlines clearly five categories that are not patent-eligible on their own: “mathematical formulas that are not part of a claimed invention, a mental process performed solely in the mind of a human being, an unmodified human gene, as that gene exists in the human body, an unmodified natural material, as that material exists in nature, and a process that is substantially economic, financial,

⁴⁷ *Id.* § 2 (Findings).

⁴⁸ *Id.* § 2(5)(B).

⁴⁹ *What “Novel & Non-Obvious” Really Means in Practice*, Patents Integrated (Aug. 24, 2021), <https://patentsintegrated.com/what-novel-and-non-obvious-really-means-in-practice/>.

⁵⁰ S. 2140, 118th Cong. (2023).

⁵¹ Michael Hammer, *Change Is Coming: The Patent Eligibility Restoration Act*, Mondaq (Oct. 2, 2024), <https://www.mondaq.com/patent/1525104/change-is-coming-the-patent-eligibility-restoration-act>.

⁵² S. 2140, 118th Cong. (2023).

⁵³ *Id.* § C.

⁵⁴ *Id.*

⁵⁵ *Id.* at 12-13.

business, social, cultural, or artistic.”⁵⁶ To add more clarity to the fifth category, PERA defines claims that merely describe processes involving human activity (“doing business, performing dance moves, offering marriage proposals, and such”) and adding a reference to a computer is not patent eligible.⁵⁷ However, any processes that cannot be practically performed without a machine, such as a computer, are patent eligible.⁵⁸ While this is only an outline of what PERA has to offer, other exclusions must be debated by Congress before implementation. Once deciding on the final non-eligible categories, Congress will not be allowed to include further exceptions without “further legislation,” thus leaving a greater predictability of patenting their innovations.⁵⁹ Applying this statute to the case of *Alice Corp. v. CLS Bank* would allow the Court to disregard the “abstract idea policy” for business/computer-implemented methods and aim for an expansive view of patent eligibility compared to the restrictive application used for *Alice*. In return, industries focused on advancing medical treatments and diagnostics, as well as artificial intelligence, will thrive. With PERA, Congress will end the “guessing game” and provide the proper jurisprudence for intellectual property.⁶⁰

V. PERA ON TRIAL

Critics have concerns with PERA opening up patents to non-technological ideas.⁶¹ They believed that allowing non-technological innovations to be patented may bring “low-quality” patents that cause harm to technological companies.⁶² This concern lies in the fact that high-tech companies had to spend billions of dollars to defend against infringement for non-technological patents that claimed business methods but only added the words “on the internet” or “in the computer.”⁶³ They propose that instead of

⁵⁶ S. 2140, 118th Cong. (2023).

⁵⁷ *Id.* § 2(5)(E)(i).

⁵⁸ *Id.* § 2(5)(E)(ii).

⁵⁹ *Id.* at 12.

⁶⁰ *Patent Eligibility Restoration Act: Restoring Clarity, Certainty, and Predictability to the U.S. Patent System: Hearing Before the S. Comm. on the Judiciary*, 118th Cong. 9 (2024) (testimony of Hon. Andrei Iancu).

⁶¹ *Patent Eligibility Restoration Act: Restoring Clarity, Certainty, and Predictability to the U.S. Patent System: Hearing Before the S. Comm. on the Judiciary*, 118th Cong. 8 (2024) (testimony of David W. Jones).

⁶² *Id.* at 10.

⁶³ *Id.*

PERA, the reform for patent eligibility should limit patents to technological advancements only.⁶⁴

While the concern for PERA is valid, critics fail to acknowledge that under PERA, such “low-quality” patents would not be issued. Non-technological patents will undergo the same requirements and eligibility tests under PERA. One of the non-eligible categories includes “a reference to computers,” which would eliminate the concern raised by critics.⁶⁵ The purpose of PERA is to help expand on the restrictiveness of current patent eligibility laws. With a limit of patents to only technological advances, there would be no point in reforming current patent laws, as they are already restrictive as is.⁶⁶

VI. WAKING UP TO THE FUTURE WITH PERA

The era of *Alice/Mayo* ends with a promising future for PERA. The landmark case of *Alice Corp. v. CLS Bank* has left much to be desired for current patent eligibility laws. With the two-step patent process unclear and leaving little to no clarification, patenting following *Alice* is full of confusion. Congress has taken steps to reform this process after the long wait for change. While current patent eligibility laws restrict and hinder development for key industries such as the medical field, there is hope for patentees with PERA. Under the future of PERA, the medical industry can look forward to more capital investments to develop life-saving treatments, and the AI technology industry will thrive, knowing their ideas are patent-protected.

⁶⁴ *Id.* at 10-11.

⁶⁵ S. 2140, 118th Cong. (2023).

⁶⁶ *Patent Eligibility Restoration Act: Restoring Clarity, Certainty, and Predictability to the U.S. Patent System: Hearing Before the S. Comm. on the Judiciary*, 118th Cong. 7–8 (2024) (responses of Adam Mossoff to questions for the record).

“Where Ya At?” Determining “Principal Place of Business” in the Digital Age

Anita Igben

“...In this era of telecommuting, some corporations may divide their command and coordinating functions among officers who work at several different locations, perhaps communicating over the internet.”

- Justice Stephen Breyer, 2010¹

I. INTRODUCTION

On February 23, 2010, the Supreme Court of the United States decided in *Hertz Corp. v. Friend* that the “principal place of business” of a corporation refers to the location where the corporation’s high-level officers direct, control, and coordinate activities. The description is referred to as the “nerve center,” typically located in the corporation’s headquarters.² This ruling resolved the various Circuit Court interpretations of the phrase by establishing a singular test to increase administrative simplicity and case predictability.³ Even so, in its unanimous opinion, the Court was aware of the difficulty of applying the nerve center test in certain circumstances.

Over fifteen years later, technological advances continue to change how and where we work. A growing share of workers practice a hybrid schedule, a flexible work model that combines in-office and remote work.⁴ In 2024, 53% of workers worked on a hybrid schedule, a 24% increase from 2023.⁵ With the now widespread acceptance of remote work, many businesses no longer require staff

¹ *Hertz Corp. v. Friend*, 559 U.S. 77, 77 (2010).

² *Id.* at 80–81.

³ *Id.* at 94.

⁴ Kim Parker, *About a Third of U.S. Workers Who Can Work from Home Now Do So All the Time*, Pew Rsch. Ctr. (Mar. 30, 2023), <https://www.pewresearch.org/short-reads/2023/03/30/about-a-third-of-us-workers-who-can-work-from-home-do-so-all-the-time/>.

⁵ Statista Research Dep’t, *Share of Workers Working Onsite Versus Hybrid or Remote in the United States from 2019 to Second Quarter 2024*, Statista (2025); see also José María Barrero et al., *The Evolution of Work from Home*, J. Econ. Persps. (Sept. 3, 2023), <https://wfhresearch.com/wp-content/uploads/2023/09/Evolution-of-WFH-3September-2023.pdf>.

attendance at the office five days per week. Sixteen percent of companies, primarily within industries centered around digitalization and tech integration, such as Computer and Information Technology, as well as Accounting and Finance, are taking it a step further by operating on a fully remote work model.⁶ One such company is Coinbase.⁷

This shift towards a remote-friendly environment raises the question of how companies' "principal place of business" will be identified. This note argues that while the adoption of the nerve center test in *Hertz Corp. v. Friend* is a judicially sound and reasonable measure, the digitalization of work requires an updated test to determine a corporation's "principal place of business" in a world embracing remote work. Part II will summarize the case history and relevant laws and statutes. Part III will review the different interpretations given to the phrase "principal place of business" before the *Hertz* ruling. Part IV will discuss the new test to determine a corporation's "principal place of business," using Coinbase as an example. Finally, Part V will conclude and discuss the future of the principal place of business in the digital age.

II. HERTZ V. FRIEND

In September 2007, California employees sued Hertz Corporation in state court for alleged violations of state wage and hour laws.⁸ Hertz filed a notice to remove the case from state to federal court, claiming to be a citizen of a different state than the plaintiffs.⁹ In its notice, Hertz submitted a declaration showing that California accounted for 17% of its car rental locations, 20% of its full-time staff, about 19% of its annual revenue, and 18% of its yearly rental transactions. It emphasized that its leadership and national subsidiaries remained in its corporate headquarters in New Jersey.¹⁰ The District Court of the Northern District of California used Ninth Circuit precedent to compare Hertz's state-by-state business activity

⁶ Katherine Haan & Lauren Holzniekemper, *Top Remote Work Statistics and Trends*, Forbes (2023), <https://www.forbes.com/advisor/business/remote-work-statistics/>.

⁷ Brian Armstrong, *Post COVID-19, Coinbase Will Be a Remote-First Company*, Coinbase (May 20, 2020), <https://www.coinbase.com/blog/post-covid-19-coinbase-will-be-a-remote-first-company>.

⁸ *Hertz Corp. v. Friend*, 559 U.S. 77 (2010).

⁹ *Id.*

¹⁰ *Id.* at 81.

and found that the corporation's business activity substantially predominated in California and was significant.¹¹ After concluding that Hertz's principal place of business was in fact California, the Northern District Court of California remanded the case to the state court.¹² Dissatisfied, Hertz appealed the remand order to the Ninth Circuit, which affirmed the district court ruling in a brief memorandum opinion.¹³ The Supreme Court of the United States granted Hertz's petition for certiorari,¹⁴ and the case was argued before the court¹⁵ on November 10, 2009.

A. Legal Issues

The Court briefly considered the respondent's jurisdictional objection that the Supreme Court lacked the authority to render a legal judgment on this case under 28 U.S.C. § 1453(c),^{16, 17} a federal statute constituting an exception to the general rule that remand orders are not reviewable on appeal, permitting Hertz to appeal the Northern District Court of California's remand order. Under the statute, parties involved in class action lawsuits may appeal to the Court of Appeals to review the district court's decision to grant or deny a remand to the state courts.¹⁸ The Court of Appeals must issue a final judgment within sixty days, with a possible ten-day extension for good cause.¹⁹ The respondent argued that the statute's legislative language intends to permit review of remand orders only by the Court of Appeals, not the Supreme Court.

However, 28 U.S.C. § 1254,^{20, 21, 22} a preexisting federal statute, grants the Supreme Court the jurisdiction to review cases in the Court of Appeals by writ of certiorari. Thus, the sixty-day requirement did not preclude the Supreme Court from reviewing the case, and the Court had jurisdiction to review the case.

¹¹ *Id.*

¹² *Id.* at 82.

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.* at 83.

¹⁷ U.S.C. § 1453(c).

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Hertz*, 559 U.S. at 83.

²¹ U.S.C. § 1254.

²² U.S.C. § 1332.

The main issue at hand for the Court was deciding the best way to determine a corporation's citizenship. The federal diversity jurisdiction statute mentions that a corporation is not only a citizen of its state of incorporation, but also where it has its "principal place of business."²³ Since federal courts may address cases involving controversies between citizens of different states, a corporation's "principal place of business" must be identified to determine eligibility for the case to move to federal court.²⁴

B. Holding

In attempting to create a uniform understanding of a corporation's "principal place of business," the Court reviewed prior interpretations to conclude that the phrase refers to where the officers direct and control its activities, which the lower courts often called the "nerve center."²⁵

C. Opinion of the Court

Justice Breyer delivered the opinion for a unanimous Court, beginning with a review of the statute's history. Federal diversity jurisdiction grants federal courts the authority to hear cases involving citizens from different states, limiting state bias for out-of-state parties.²⁶ Corporations could claim diversity jurisdiction in the state where they conducted all their business by filing for incorporation in another state.²⁷ If an employee who is a citizen of the state where the company conducts business files suit in state court, the company could claim that, based on its state of incorporation, it is a citizen of another state. What resulted was an increase in the size of federal dockets regarding diversity.²⁸ ,²⁹

To reduce the amount of diversity of citizenship cases in federal courts, the provision "principal place of business" was included in 28 U.S.C. § 1332 in 1958. With the amendment, courts were

²³ *Id.*

²⁴ U.S. Const. art. III, § 2.

²⁵ *Hertz*, 559 U.S. 77.

²⁶ Scott Dodson, *Beyond Bias in Diversity Jurisdiction*, 69 Duke L.J. 267 (2019).

²⁷ *Hertz*, 559 U.S. at 86.

²⁸ *Id.*

²⁹ A James W. Moore et al., *Moore's Federal Practice* § 102.54 (3d ed. 2025).

uncertain on how to interpret the phrase for diversity purposes.³⁰ Corporations come in different forms, focus on different activities, and operate in different ways, which adds to the complexity of determining a corporation's "principal place of business." The federal courts created tests based on various interpretations that often overlapped and were described vaguely.³¹ In the judicial system's efforts to locate the state where corporations would least likely experience out-of-state prejudice, it failed to create a uniform interpretation of the phrase.³² Upon reviewing the Court of Appeals' interpretations, the Supreme Court adopted and expanded on the nerve center test. The Court reasoned that the statute supports the usage of a test like the nerve center test, which denotes the main place of business within a state, not the state itself.³³ The test is simple to administer, whereas complex tests require money and time to determine state citizenship, which would be better used adjudicating the actual issue at hand.³⁴ The Court ensured that the test would also produce predictable outcomes so that corporations may better use their resources and plaintiffs would have a better understanding of where to file their suit.³⁵ The history of the statute expresses efforts to provide a foundation for simplicity in determining a corporation's citizenship.³⁶

As noted at the outset, the Court was aware that with the advent of telecommunication platforms, some corporations have distributed executive functions among officers working from different locations. Still, the Court provided no solution, mentioning, "the test nonetheless points courts in a single direction, toward the center of overall direction, control, and coordination."³⁷ However, with advances in technology and the move toward digitalization, determining a corporation's "principal place of business" under the current framework will prove difficult.³⁸ The nerve center test assumes localization of direction and coordination, but this is

³⁰ *Hertz*, 559 U.S. at 86

³¹ *Id.*

³² *Hertz*, 559 U.S. at 91.

³³ *Id.* at 92.

³⁴ *Id.* at 93.

³⁵ *Id.* at 94.

³⁶ *Id.* at 94–95.

³⁷ *Id.*

³⁸ *Id.* at 96.

especially difficult to identify in a remote-based model where executives are not obligated to work from the same location.

D. Modern Day Nerve Center Pitfalls: Coinbase

One company that functions in a remote setting is Coinbase. Coinbase is a cryptocurrency exchange platform founded in 2012.³⁹ As of May 20, 2020, the company became a remote-first organization, prioritizing remote work as its primary mode of operation.⁴⁰ Nine months later, in line with its mission to decentralize currency, Coinbase became a decentralized company with no headquarters.⁴¹ These policies allowed the company to move away from a strictly in-office work culture. Coinbase leaders who once frequented the San Francisco headquarters now all reside outside the city.⁴²

Applying the current nerve center test framework,⁴³ Coinbase's "principal place of business" is the place where the corporation's high-level officers direct, control, and coordinate the corporation's activities. Coinbase executives often visited the company's California headquarters, once suggesting it is the "principal place of business." Now that the company no longer has a headquarters and all company leadership lives outside of San Francisco, there is no clear indication that the executives meet at a specific location to direct, control, and coordinate the corporation's activities, unless video conferencing platforms are considered principal places of business, which, based on the language of 28 U.S.C. § 1332, they are not. However, this does not indicate that Coinbase lacks a principal place of business. Rather, it suggests a need for a revised interpretation of the phrase. Prior interpretations adopted by federal courts before *Hertz* may provide insight into how to form an updated test.

³⁹ *Coinbase Global Inc (COIN)*, Global Data Fin. Profiles (025), <https://www.proquest.com/docview/2580891581>.

⁴⁰ Armstrong, *supra* note 7.

⁴¹ Brian Armstrong, *Coinbase Is a Decentralized Company, with No Headquarters*, Coinbase (Feb. 24, 2021), <https://www.coinbase.com/blog/coinbase-is-a-decentralized-company-with-no-headquarters>.

⁴² *Id.*

⁴³ *Hertz*, 559 U.S. 77.

III. PRE-HERTZ TESTS

A. *Corporate Activity Test*

The Corporate Activity Test refers to where the business conducts its main operations and services, focusing on the location of the corporation's tangible assets.⁴⁴ It measures and compares the corporation's presence across states based on factors such as the locations of manufacturing, sales, and purchasing centers, as well as the number of stores and employees.⁴⁵

Although the test seems intuitive, its application is quite difficult. It is pragmatic to say that a corporation is a citizen of the state where it has substantial production and operations, but it is hard to determine which factors are dispositive or closely related to the corporation's corporate activity. The test can⁴⁶ create a situation in which the same set of facts can lead to different conclusions depending on which factors of activity the court places greater emphasis on.

B. *Nerve Center Test*

The Nerve Center Test focuses on the corporation's main decision-makers. The test looks to identify where the high-level executives frequently meet and spend their time.⁴⁷ The federal courts developed this test for corporations with far-flung activities.⁴⁸ Given the difficulty of identifying the primary location of activity for corporations operating in different states, courts looked to the "brain" behind the business's operations. Courts tended to find the "brain" in the corporation's headquarters.⁴⁹

⁴⁴ *Kelly v. United States Steel Corp.*, 284 F.2d 850 (3d Cir. 1960); see also *Mitchell v. Monongahela Power Co.*, 602 F. Supp. 756 (S.D. W. Va. 1985).

⁴⁵ *Peterson v. Cooley*, 142 F.3d 181 (4th Cir. 1998).

⁴⁶ Michael E. Chaplin, *Resolving the Principal Place of Business Conundrum: Adopting a Single Test for Federal Diversity Jurisdiction*, 30 Rev. Litig. 81 (2010).

⁴⁷ James W. Moore & Donald T. Weckstein, *Corporations and Diversity of Citizenship Jurisdiction: A Supreme Court Fiction Revisited*, 77 Harv. L. Rev. 1426 (1964).

⁴⁸ *Topp v. CompAir, Inc.*, 814 F.2d 830 (1st Cir. 1987); see also *Scot Typewriter Co. v. Underwood Corp.*, 170 F. Supp. 862 (S.D.N.Y. 1959).

⁴⁹ *Wisconsin Knife Works v. Nat'l Metal Crafters*, 781 F.2d 1280 (7th Cir. 1986).

The idea is that coordination radiates out from the center to its constituent parts. However, the test may produce counterintuitive results.⁵⁰ For example, a company with the bulk of its visible operations in State A, with executives running the company in State B, would have its “principal place of business” in State B. Therefore, the company would be entitled to remove a State A case to federal court but not a State B case.

C. Total Activity Test

The Total Activity Test considers all aspects of the corporation’s operations and leadership. The test calls for a thorough review based on the facts of the case.⁵¹ It recognizes that the nature of a corporation will impact the importance of production, service, and corporate decision-making to varying degrees, so it provides a case-by-case inquiry. The court looks to the “totality of the circumstances” to understand how the corporation functions, its purpose, the kind of business it engages in, and where it operates.⁵² The test’s flexibility accounts for the unique nature of each corporation and reduces forum shopping.⁵³ Although the test attempts to balance all business factors in light of the facts of the case, doing so is costly for the courts and not simple to judicially administer.

Amongst all the tests, the simplicity of applying the Nerve Center Test makes it the most favorable for identifying a corporation’s principal place of business, especially for corporations that operate in many locations.⁵⁴ Yet, in today’s world, another issue arises. With technology, officers can be decentralized, directing and controlling the corporation from multiple locations. To resolve this, a revised test is necessary to establish a new method for determining a corporation’s “principal place of business.”

⁵⁰ Moore et al., *supra* note 27, § 102.54.

⁵¹ *Village Fair Shopping Ctr. Co. v. Sam Broadhead Trust*, 588 F.2d 431 (5th Cir. 1979).

⁵² *Capitol Indem. Corp. v. Russellville Steel Co.*, 367 F.3d 831 (8th Cir. 2004).

⁵³ *Gadlin v. Sybron Int’l Corp.*, 222 F.3d 797 (10th Cir. 2000).

⁵⁴ Chaplin, *supra* note 43.

IV. THE NEW TEST: WHERE YA AT?

The Chief Test determines that the “principal place of business” of a corporation refers to where most of the high-level officers direct, control, and coordinate the corporation’s activities. The test factors in companies that lack a centralized or localized administration of executive functions. Under a remote work model, high-level officers would typically work at their place of residence. The test examines the place of residence of C-level executives to determine where they work. If most executives reside in a particular state, that state would be considered the corporation’s “principal place of business.” If a state is not easily identifiable, then the Chief Executive Officer’s state of residence will be regarded as the corporation’s “principal place of business.” This makes intuitive sense, as the Chief Executive Officer is the highest-ranking member in the corporate hierarchy, making significant decisions that affect the company as a whole.⁵⁵

Applying the test to determine Coinbase’s “principal place of business,” the Coinbase C-suite team consists of the Chief Executive Officer (CEO), Chief Operating Officer (COO), Chief People Officer (CPO), Chief Legal Officer (CLO), and Chief Financial Officer (CFO). Based on readily available information,⁵⁶ the CEO, COO, and CLO reside in California.⁵⁷ The CFO resides in New York, while the COO resides⁵⁵ in North Carolina. Since most of the corporation’s C-suite executives reside in California, Coinbase’s “principal place of business” is in California. Therefore, Coinbase may assert diversity jurisdiction in cases involving controversies with parties who are not citizens of California.

The Chief Test, like the Nerve Center Test, focuses on the corporation’s “brain,” its high-level leadership. As business activities become less tangible and more digital, a business’s location more closely aligns with that of its senior executives. Further adoption and acceptance of remote work removes the need for senior executives to coordinate the corporation’s activities from headquarters or from a single location. The Chief Test removes the burden of establishing

⁵⁵ Global Data Fin. Profiles, *supra* note 36.

⁵⁶ Global Data Fin. Profiles, *supra* note 36.

⁵⁷ Kate Duffy, *Coinbase CEO Brian Armstrong Has Bought a \$133 Million Mansion in Bel Air, a Report Says*, *Bus. Insider* (2022), <https://www.businessinsider.com/coinbase-ceo-brian-armstrong-buys-133-million-la-mansioncrypto-2022-1>.

a center of coordination and focuses on where most of the coordination, the senior executives, reside. In a situation where the top-level executives primarily conduct work in another place outside the state of their place of residence, the primary location will be used to determine the executives' primary workplace. If no clear place is identified among the executives, the highest-level executive's state of residence will be considered the "principal place of business" to determine state citizenship.

V. CONCLUSION

The court's ruling in *Hertz Corp. v. Friend* was a step in the right direction, focusing on the corporation's source of leadership rather than its physical operations. However, technology continues to change rapidly, and discussions surrounding artificial intelligence, technological integration, and overall efficiency are changing how and where people work. The Chief Test aims to address the challenges of determining a remote-oriented corporation's "principal place of business" for federal diversity purposes. To address the legal challenges that will continue to arise with technological advances, laws and their interpretations must remain attuned to the changing digital environment for the benefit of corporations and employees.

Graduating from LDC Status is Not the Finish Line for Bangladesh

Suhani Chawla

I. INTRODUCTION

Bangladesh's scheduled graduation from the United Nations' Least Developed Country (LDC) category in November 2026 has been widely treated as an unambiguous development success.¹ After decades of poverty, political instability, and external dependence, graduation is commonly framed as confirmation that the country has achieved economic maturity.² This celebratory perspective, however, overlooks the legally consequential nature of LDC graduation and the uneven burdens graduation may impose across actors in the country.

Being considered an LDC has long structured how developing economies participate in global markets.³ Preferential market access, differential treatment under World Trade Organization (WTO) rules, and other international support measures have functioned not just as temporary assistance, but as mechanisms enabling export competitiveness for LDCs.^{4,5} Graduation initiates the phased withdrawal of support measures that have long underpinned Bangladesh's export-led growth. While this transition may strengthen Bangladesh's standing in global markets, it simultaneously exposes domestic industries to competitive pressures that were previously buffered by LDC-specific legal protections.

¹ See Bangladesh Graduation Status, Least Developed Countries Portal, United Nations (Nov. 11, 2021), <https://www.un.org/ldcportal/content/bangladesh-graduation-status>.

² See United Nations, *A Guide to Least Developed Country Graduation* (2022), https://www.un.org/ohrlls/sites/www.un.org.ohrlls/files/graduation_booklet_2022_en.pdf.

³ See LDC Category, Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States, United Nations (2024), <https://www.un.org/ohrlls/content/ldc-category>.

⁴ See Least-Developed Countries, World Trade Organization (2019), https://www.wto.org/english/thewto_e/whatis_e/tif_e/org7_e.htm.

⁵ See Everything But Arms (EBA), European Commission (2019), <https://trade.ec.europa.eu/access-to-markets/en/content/everything-arms-eba>.

This paper argues that Bangladesh's LDC graduation exposes a disconnect between macroeconomic indicators of development and the legal realities of trade integration, acknowledging that although graduation reflects measurable progress at the national level, the near elimination of preferential tariff agreements introduces substantial adjustment risks for an economy whose export structure remains narrowly concentrated.⁶ LDC graduation should therefore not be treated as the endpoint of development, but as a legally significant transition that shapes Bangladesh's long-term economic sustainability and social responsibility.⁷

II. BANGLADESH AND ITS LEAST DEVELOPED COUNTRY (LDC) DESIGNATION

A. Independence, Instability, and Developmental Survival

Bangladesh, formerly known as East Pakistan, became an independent nation-state in the year 1971.⁸ Inheriting a war struck economy after two decades of neglect and exploitation from Pakistan, the country was stuck in a cycle of poverty with a GDP growth rate of -5.48% in 1971.⁹ Despite receiving an estimated USD 24 billion in foreign assistance between 1971 and 1992, Bangladesh struggled to translate external support into sustained development.¹⁰ In 1974, U.S. Secretary of State Henry Kissinger infamously characterized the country as a “bottomless basket,”

⁶ See Refayet Mirdha, *The LDC Graduation Conundrum*, Daily Star (2025), <https://www.thedailystar.net/business/news/ldc-graduation-conundrum-3972731>.

⁷ See Mohammad Razzaque, Deen Islam & Jillur Rahman, *Can Bangladesh Absorb LDC Graduation-Induced Tariff Hikes? Evidence Using Product-Specific Price Elasticities of Demand and Markups for Apparel Exports to Europe* (Nov. 2023), <https://www.theigc.org/sites/default/files/2024-09/Razzaque%20et%20al.%20Policy%20Brief%20September%202024.pdf>.

⁸ See *The Independence of Bangladesh in 1971*, Nat'l Archives, <https://www.nationalarchives.gov.uk/education/resources/the-independence-of-bangladesh-in-1971/>.

⁹ See Md Joynal Abdin, *Evolution of Bangladesh Economy* (Mar. 11, 2020), https://www.researchgate.net/publication/339841440_Evolution_of_Bangladesh_Economy.

¹⁰ See Anisul M. Islam, *Foreign Assistance and Development in Bangladesh*, in *Foreign Aid: New Perspectives* 211, 211-31 (1999), https://doi.org/10.1007/978-1-4615-5095-2_12.

capturing prevailing skepticism about its development prospects amid persistent structural constraints.¹¹

Early post-independence governance emphasized socialist economic policies, but political instability quickly undermined reform efforts. The assassination of Prime Minister Sheikh Mujibur Rahman in 1975 precipitated a prolonged period of military rule and institutional fragility that endured for more than three decades.¹² During this period, low educational attainment, limited access to family planning, and a narrow and inefficient tax system constrained state capacity, while governance failures, including corruption, partisan conflict, and resistance from religious groups, further impeded development.¹³

For much of the post-independence period, Bangladesh's development strategy remained heavily reliant on external assistance and preferential international treatment. The restoration of parliamentary democracy in 1991 marked a shift in this trajectory.¹⁴ Economic liberalization policies introduced thereafter facilitated private sector expansion and export-oriented industrialization, laying the foundation for sustained growth. In the decades that followed, Bangladesh recorded substantial reductions in poverty alongside measurable improvements in health outcomes, educational attainment, and gender parity.¹⁵ Central to this transformation was the rapid expansion of the Ready-Made Garment (RMG) sector, which absorbed large volumes of low-skilled labor and emerged as the country's

¹¹ "See Kissinger Who Called Bangladesh 'Basket Case' Says US Role in 1971 Was a 'Misjudgment,' Daily Star (2022), <https://www.thedailystar.net/news/bangladesh/news/kissinger-who-called-bangladesh-basket-case-says-us-role-1971-was-misjudgment-2997121>.

¹² See Amnesty Int'l, *Bangladesh: Trial of Alleged Killers of Sheikh Mujibur Rahman and His Family Members* (1997), <https://www.amnesty.org/fr/wp-content/uploads/2021/06/asa130021997en.pdf>.

¹³ See Sarah Shehabuddin, *Bangladeshi Politics Since Independence*.

¹⁴ See Craig Baxter, *Bangladesh in 1991: A Parliamentary System*, 32 *Asian Surv.* 162, 162-67 (1992), <https://doi.org/10.2307/2645214>.

¹⁵ See Azizur Rahman Khan, *A Quarter Century of Economic Development in Bangladesh: Successes and Failures*, 23 *Bangladesh Dev. Stud.* 1, 1-19 (1995), <https://doi.org/10.2307/40795534>.

dominant source of export earnings. Yet the sector's growth was not solely the product of domestic reform or market competitiveness. Rather, it was closely intertwined with LDC-specific trade preferences, particularly in European markets. Under the Everything But Arms (EBA) initiative, for example, Bangladesh's garment exports to the EU increased from approximately USD 2 billion in 2001 to over USD 23 billion by 2023.¹⁶

B. The Significance of LDC Status and Graduation

The LDC category was established by the United Nations (UN) to identify countries facing the most severe structural barriers to development and to provide them with international support. Although often framed in developmental terms, LDC status functions as a legally operative classification within the international trade market. Countries designated as LDCs receive a range of binding advantages, including preferential market access through duty-free, quota-free (DFQF) trade agreements, special and differential treatment under WTO agreements, extended transition periods under the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), and access to concessional development finance.¹⁷

These measures are not merely ancillary benefits. For many LDCs, they form the backbone of export competitiveness, particularly in sectors characterized by low margins and high exposure to global price competition. In the apparel sector, for example, preferential access to European markets under the EBA has historically allowed LDC exporters to offset structural disadvantages such as low productivity, limited technological upgrading, and weak domestic value chains. As a result, LDC status operates less as a passive label and more as an embedded trade mechanism that shapes development trajectories.

¹⁶ See EU Trade Relations with Bangladesh, Eur. Comm'n (2024), https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/bangladesh_en.

¹⁷ See EU Trade Relations with Bangladesh, Eur. Comm'n (2024), https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/bangladesh_en.

For Bangladesh, this trajectory has been one of exponential growth over the past few decades, allowing the country to graduate from LDC status. The authority to determine inclusion in and graduation from the LDC category is the United Nations Committee for Development Policy (CDP), which conducts triennial reviews under mandates from the General Assembly and the Economic and Social Council. Graduation is based on three criteria, namely, gross national income (GNI) per capita, human assets, and economic and environmental vulnerability. A country must exceed the relevant thresholds in at least two of these criteria in two consecutive reviews to qualify for graduation. Bangladesh met all three criteria in both the 2018 and 2021 CDP assessments. By 2025, its GNI per capita had reached approximately USD 2,820, well above the graduation threshold. Its Human Assets Index (HAI) score rose to 77.8, reflecting notable improvements in health and education outcomes, while its Economic and Environmental Vulnerability Index (EVI) declined to 22.13, indicating increased resilience to external shocks. On this basis, the CDP recommended Bangladesh's graduation, with an effective date of November 2026 and a transition period for the phased withdrawal of LDC-specific support measures.

III. LEGAL AND ECONOMIC RISKS OF LDC GRADUATION

A. Dependence on Preferential Trade Agreements

Bangladesh's foremost vulnerability is its heavy reliance on non-reciprocal preferential trade agreements, particularly in the apparel sector. At present, approximately 78% of Bangladesh's exports benefit from duty-free or reduced-tariff access in thirty-eight countries under LDC-specific trade schemes.¹⁸ The anticipated consequences of preference withdrawal are therefore significant. Once LDC benefits expire, Bangladesh stands to lose an estimated USD 8 billion in annual trade and may face tariffs of 12% or more in several major export markets. For a sector built on low-cost competitiveness, the imposition of such duties threatens to erode

¹⁸ See Mostafiz Uddin, *How Will LDC Graduation Impact Bangladesh's RMG Sector?*, Daily Star (2025), <https://www.thedailystar.net/opinion/views/news/how-will-ldc-graduation-impact-bangladeshs-rmg-sector-3870356>.

the price advantages that have underpinned Bangladesh's rise as the world's second-largest apparel exporter.¹⁹ Unlike diversified manufacturing economies, Bangladesh lacks sufficient alternative export sectors capable of absorbing this shock, amplifying the systemic risk associated with graduation.²⁰

While a limited transition period mitigates some of these risks, its scope remains constrained. Certain LDC benefits will continue for up to three years following graduation, extending through 2029. During this grace period, key trading partners, including the EU, the United Kingdom, Canada, and Australia, have indicated a willingness to maintain favorable market access, often subject to enhanced regulatory and compliance conditions.²¹ However, this temporary accommodation does not eliminate the structural problem. The grace period merely delays the legal consequences of graduation without resolving the underlying dependence on preferential access.

Bangladesh's decision to adhere to the 2026 graduation deadline thus reflects a calculated acceptance of heightened trade risk. While the government has acknowledged the potential costs and articulated mitigation strategies, the accelerated timeline compresses the window for legal and regulatory adjustment. Without securing alternative trade arrangements, such as eligibility under enhanced preference schemes like the EU's Generalized Scheme of Preferences (GSP) Plus or new bilateral and regional trade agreements, Bangladesh risks entering the post-LDC era under materially less favorable legal conditions than many of its competitors.

¹⁹ See Dina M. Siddiqi, *What's Happening in Bangladesh's Garment Industry?*, *Economics Observatory* (Mar. 26, 2025), <https://www.economicsobservatory.com/whats-happening-in-bangladeshs-garment-industry>.

²⁰ See Selim Raihan, Sangeeta Khorana & Mahtab Uddin, *Navigating LDC Graduation: Modelling the Impact of RCEP and CPTPP on Bangladesh*, *J. Asia Pac. Econ.* 1, 1-23 (2022), <https://doi.org/10.1080/13547860.2022.2114227>.

²¹ See Mustafizur Rahman, *Bangladesh's LDC Graduation: Why Readiness Is the Best Strategy*, *Daily Star* (2026), <https://www.thedailystar.net/news/bangladeshs-ldc-graduation-why-readiness-the-best-strategy-4086346>.

B. Political Instability and Readiness for LDC Graduation

Bangladesh's capacity to manage the legal and economic consequences of LDC graduation has been further undermined by political instability caused by the resignation of Prime Minister Sheikh Hasina on August 5th, 2024, and her departure from the country.²² The resignation followed weeks of nationwide student-led protests that escalated into violent confrontations between protesters, security forces, and members of the ruling party's affiliated groups. According to human rights monitors, the unrest resulted in the deaths of approximately 300 people, thousands of injuries, and the arrest of more than 10,000 individuals. On August 5, the military assumed control, with the army chief announcing the prime minister's resignation and the formation of an interim government.²³

From a trade law and regulatory perspective, the timing of this executive collapse is particularly consequential. Being scheduled to graduate from LDC status in a few months, Bangladesh must ensure that the political and economic climate is sufficient for sustained policy coordination, regulatory reform, and credible engagement with international trade partners. Investor confidence and trade partner trust are closely tied to perceptions of rule of law adherence, institutional independence, and policy predictability. Episodes of mass repression, internet shutdowns, and military intervention undermine these perceptions and heighten the risk premium associated with economic engagement. This, in turn, threatens foreign direct investment (FDI) inflows and complicates trade negotiations precisely when Bangladesh must diversify its export base and secure post-LDC market access.

Bangladesh's decision to proceed with LDC graduation on schedule, despite political instability, widespread human rights

²² See Bangladesh: Prime Minister Hasina Resigns amid Mass Protests, Hum. Rts. Watch (Aug. 6, 2024), <https://www.hrw.org/news/2024/08/06/bangladesh-prime-minister-hasina-resigns-amid-mass-protests>.

²³ See Moudud Sujan, 'Frightening Situation': Bangladesh Elections Haunted by Political Violence, Lemkin Inst. (Jan. 26, 2026), <https://www.lemkininstitute.com/single-post/frightening-situation-bangladesh-elections-haunted-by-political-violence>.

abuses, and institutional uncertainty, raises serious questions about readiness. Graduation under these conditions risks transforming what is intended to be a managed legal transition into a destabilizing economic and political shock, with consequences that extend beyond trade metrics.

C. EXPORT CONCENTRATION AS A STRUCTURAL VULNERABILITY

The consequences of preference removal are heightened by Bangladesh's deeply entrenched export concentration, which has persisted despite decades of policy debate and reform rhetoric. Far from improving, Bangladesh's export structure has become narrower over time. The RMG industry now accounts for approximately 85% of total merchandise exports, leaving the country with one of the least diversified export baskets globally.²⁴ According to UNCTAD's export diversification index, where higher values indicate greater concentration, Bangladesh recorded an average score of 0.87 during the 2020 to 2022 period.²⁵ This level of concentration significantly exceeds the least developed country average of 0.66 and stands well above comparator economies such as Vietnam at 0.54, India at 0.45, and China at 0.38. Since 2000, new products have contributed less than five percent of Bangladesh's export growth, underscoring the extent to which expansion has remained confined to a single sector.

Domestic trade policy has compounded this imbalance. While garments benefited from targeted export support measures and bonded warehouse facilities that insulated producers from domestic protection, trade policy more broadly has remained inward-looking.²⁶ High tariffs and trade taxes have made

²⁴ See Apparel Export Reaches \$12.99bn in July-Oct of FY 2025-26, Textile Today (Nov. 4, 2025), <https://www.textiletoday.com.bd/apparel-export-reaches-1299bn-in-july-oct-of-fy-2025-26>.

²⁵ See United Nations, *Committee for Development Policy* (Oct. 2023), <https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/CDP-bp-2023-59.pdf>.

²⁶ See Ministry of Commerce, *Export Policy 2024-2027 Government of the People's Republic of Bangladesh Ministry of Commerce Bangladesh Secretariat Dhaka* (Gov't of the People's Republic of Bangladesh), https://www.bangladeshtradeportal.gov.bd/kcfinder/upload/files/Legal_1756180440.pdf.

domestic sales more attractive than exporting, discouraging firms in other sectors from engaging with foreign markets. Weak enforcement of quality, labor, and environmental standards has further tilted incentives toward domestic production, where compliance costs are lower and regulatory scrutiny is limited. As a result, Bangladesh produces a wide range of goods, including pharmaceuticals, footwear, ceramics, cement, and processed foods, yet exports only a narrow subset at scale.

IV. STRATEGIES FOR BANGLADESH TO CONSIDER POST-GRADUATION

A. EU's Generalized Scheme of Preferences Plus

Under current trade laws, Bangladesh will retain zero-duty access to the EU market for three years following its formal graduation. Absent an alternative framework, however, Bangladeshi exports would face an average tariff of approximately 8.7% thereafter, with projected declines in shipment volumes of roughly 5.7% per year.²⁷ The country therefore needs a market access strategy that treats preferential agreements as temporary solutions that must be replaced by enforceable alternatives. One initiative Bangladesh needs to plan for is the EU's GSP Plus, which offers tariff-free access but is conditioned on compliance and enforcement. The EU describes GSP Plus as a scheme that grants duty reductions to zero for a substantial share of tariff lines in exchange for the implementation of international conventions on human rights, labor rights, the environment, and good governance.²⁸

Discourse surrounding GSP Plus is increasingly framed as the practical successor to EBA after the transition period ends. The challenge, however, is that GSP Plus functions less like a development preference and more like a compliance contract. Eligibility requires not only ratification of 27 international conventions on human rights, labor standards, environmental

²⁷ See Khondaker Moazzem & Abeer Khandker, Opinion | Can Bangladesh Get Prepared for EU's GSP-Plus?, GSPHub, <https://gsphub.eu/news/opinion-bangladesh-gspplus>.

²⁸ See Refayet Mirdha, EU's GSP+: The Lifeline Bangladesh Must Win before 2029, Daily Star (2025), <https://www.thedailystar.net/business/news/eus-gsp-lifeline-bangladesh-must-win-2029-4051411>.

protection, and governance, but also credible evidence of domestic implementation and enforcement. Bangladesh has ratified the relevant conventions and undertaken multiple amendments to its labor laws, including revisions in 2013 and 2018 and the adoption of Labor Rules in 2015. These reforms introduced provisions on factory safety, trade union registration, child labor restrictions, and basic workplace standards. The government has also developed an indicative action plan addressing outstanding compliance issues and established a tripartite committee involving government representatives, employers, and workers, which has engaged with the EU on implementation concerns.

Yet significant legal gaps remain, including the absence of clear statutory definitions for forced labor, workplace harassment, and violence against workers, limited coverage of domestic workers under labor law, minimal penalties for violations, persistent case backlogs in labor courts, and restrictive provisions governing worker representation in export processing zones. Bangladesh needs to act on these gaps immediately. The country should treat compliance demonstration as a legal deliverable with evidentiary standards. A credible approach is to create an inter-ministerial compliance unit that produces an annual implementation record designed for external review. This should include inspection and remediation data, enforcement actions, and measurable governance indicators, rather than high-level legislative descriptions. The point is to reduce the compliance debate from rhetoric to proof that can withstand EU scrutiny.

Another necessary solution is the development of a contingency strategy centered on an Economic Partnership Agreement (EPA). An EPA would operate on the basis of reciprocal market access, requiring Bangladesh to reduce tariffs on selected imports in exchange for duty-free access abroad.²¹ Bangladesh has already signed its first EPA with Japan, signaling both political willingness and institutional capacity to engage in reciprocal trade arrangements.²⁹

²⁹ See Refayet Mirdha, Bangladesh Signs First Economic Partnership Deal with Japan, *Daily Star* (2026), <https://www.thedailystar.net/business/news/bangladesh-signs-first-economic-partnership-deal-japan-4099551>.

Although this route is more politically sensitive than GSP Plus, it may prove faster and more legally certain if GSP Plus eligibility or safeguard waivers cannot be secured within the required timeframe. Preparing for this possibility requires Bangladesh to align its domestic tariff and customs framework with its external market access strategy. In this context, trade law functions as industrial policy. Movement toward reciprocity through EPAs or similar arrangements demands rule-based tariff reforms that preserve fiscal stability while avoiding abrupt protection shocks. Developing this framework in advance would reduce the risk that post-LDC trade negotiations provoke domestic political resistance that could undermine implementation at the moment when regulatory credibility is most needed.

B. Political Stability as a Precondition for LDC Graduation

Stabilizing the political environment is not merely a governance objective but a necessary legal condition for managing LDC graduation. The current interim government has taken initial steps by establishing a National Steering Committee chaired by the Chief Adviser, and a Technical Committee led by the Special Assistant to the Chief Adviser, to coordinate graduation-related preparations. These bodies provide a framework for administrative coordination, but their effectiveness ultimately depends on whether their decisions are institutionalized and carried forward by a government with a democratic mandate.³⁰

A key priority is ensuring that graduation-related commitments, particularly those concerning trade negotiations, regulatory reform, and compliance with international standards, are insulated from political turnover. The National Steering Committee has requested an Independent Readiness Assessment (IRA), which is a non-binding evaluation conducted ahead of the UN CDP's final review to assess a country's institutional, legal, and policy preparedness for the withdrawal of LDC-specific support measures. While the submission of a request for an IRA represents

³⁰ See Selim Raihan, *Navigating Uncertainty: Bangladesh's LDC Graduation, Deferral Debate, and the Future of Reform*.

an important procedural step, its value lies less in the assessment itself than in whether its findings are translated into binding policy actions with cross-party support. Without such continuity, graduation risks being implemented through interim mechanisms that lack the durability required to sustain post-LDC reforms.

Political stabilization also has direct implications for Bangladesh's external economic strategy. Trade partners and investors increasingly condition engagement on perceptions of the rule of law, regulatory predictability, and institutional independence. Therefore, the most effective stabilization strategy is not short-term crisis management, but the quick restoration of a legitimate electoral process followed by clear signals of policy continuity. This includes reaffirming commitments to trade negotiations, maintaining momentum on graduation-related legal reforms, and avoiding abrupt policy reversals that could undermine confidence during the transition period.

C. Export Diversification Through Trade Law Reform

Even if Bangladesh succeeds in replacing lost LDC trade preferences, graduation will remain economically precarious so long as the country's export structure continues to be dominated by a single sector. A diversification strategy should therefore focus on building export readiness in non-garment sectors through legal reforms that change incentives, reduce transaction costs, and mobilize FDI into targeted industries.³¹

First, tariff and tax rationalization should reduce the domestic bias against exporting. When trade taxes and high protection make domestic sales more profitable, firms have weak incentives to become export-compliant. Reform should include reducing anti-export bias in tariffs, streamlining duty drawback and bonded facilities beyond garments, and lowering administrative discretion in customs. The garments

³¹ See Bidyut Saha & Chandan Sapkota, *Beyond Apparel: How Bangladesh Can Develop New Exports*, Daily Star (2025), <https://www.thedailystar.net/opinion/views/news/beyond-apparel-how-bangladesh-can-develop-new-exports-4046591>.

sector scaled in part because bonded warehouse systems supported integration into global value chains. Extending comparable facilitation to select non-garment sectors is a legal equalizer.

Second, Bangladesh should build an FDI anchored diversification model through investment law and regulatory simplification. In practice, FDI often supplies the market access, technology, and distribution networks that domestic firms cannot cheaply develop. A credible legal framework includes simplified licensing, stable tax treatment, enforceable investor rights with clear performance expectations, and improved contract enforcement. Bangladesh should couple this by adopting sector-specific investment strategies that are legible to foreign partners. Broad industrial policy often fails because it lacks prioritization. A more defensible approach is to pick a small number of sectors where Bangladesh can plausibly reach export scale, then build tailored legal infrastructure around them.

V. LOOKING AHEAD TO POTENTIAL OPPORTUNITIES

Bangladesh is the first country to meet all three LDC graduation criteria simultaneously, a rare outcome that strengthens the country's credibility in international economic and legal perspectives and signals a shift away from the extreme vulnerabilities that originally justified its LDC classification.³² This is one of the opportunities awaiting Bangladesh as graduation is associated with improved sovereign credit perceptions, greater investor confidence, and enhanced bargaining power in trade and investment negotiations. If paired with credible legal reforms and policy continuity, Bangladesh's post-LDC status can be leveraged to attract higher-quality FDI, particularly in sectors beyond garments. This also depends on whether graduation is internalized within national policy

³² See United Nations, *Country Presentation Bangladesh Graduation from LDCs: Challenges & Opportunities National Focal Points Meeting 12-13 July New York* Monowar Ahmed Additional Secretary & NFP on IPoA Economic Relations Division Ministry of Finance, <https://www.un.org/ohrlls/sites/www.un.org.ohrlls/files/graduation-from-ldcs-monowar-ahmed-bangladesh.pdf>.

frameworks rather than treated as an external UN decision. Countries that have sustained post-graduation momentum have done so by embedding graduation objectives into domestic trade, investment, and industrial laws, rather than relying on ad hoc mitigation measures.

At the domestic level, graduation can serve as a catalyst for long-deferred structural reforms. The withdrawal of LDC-specific support exposes weaknesses in export concentration and regulatory enforcement, especially in the country's labor laws. If addressed proactively, these pressures can drive diversification, skills upgrading, and productivity-enhancing reforms that are politically difficult in periods of preferential insulation.^{27,28,32} In this sense, graduation creates a policy forcing model. It narrows the space for reliance on a single sector and encourages the development of a broader export base supported by clearer trade rules, more predictable regulation, and overall social responsibility.

VI. CONCLUSION

Ultimately, LDC graduation does not guarantee success, nor does it preordain decline. Its consequences will be shaped by the extent to which Bangladesh adopts a coordinated approach that secures post-LDC trade access, stabilizes its political and institutional environment, and restructures its export base beyond garment dependence. If managed well, graduation offers Bangladesh the potential to absorb the withdrawal of LDC-specific support measures, while also repositioning itself as a more competitive developing economy. Whether this potential is realized will depend less on the formal act of graduation than on the choices made in its aftermath.