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# THE EROSION OF THE 'REASONABLE INVESTOR': RECONCEPTUALIZING MATERIALITY IN THE ERA OF ALGORITHMIC SENTIMENT AND SOCIAL MEDIA VOLATILITY

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## ABSTRACT

Securities regulation has long anchored itself to a comforting legal fiction: the 'reasonable investor.' Traditionally, courts and regulators envision a rational actor who meticulously weighs balance sheets and corporate disclosures before allocating capital. But does this hyper-rational consumer of information actually reflect the modern market? Today's capital markets are increasingly driven not by fundamental financial analysis, but by the lightning-fast reflexes of high-frequency trading algorithms and the decentralized momentum of retail sentiment. Turning then to the psychological aspect of market participation, we see a profound disconnect. When a stray tweet from Elon Musk about Tesla or a Reddit board coordinating a massive short squeeze on GameStop can instantly dictate billions in market capitalization, the traditional doctrine of materiality begins to fracture. This paper explores the critical gap between 20th-century disclosure theory and a 21st-century reality where 'information' is frequently defined by virality rather than intrinsic economic substance. This brings us to a critical contradiction in the law. If a trading algorithm reacts purely to scraped keywords, or a retail mob trades entirely on memes, the mandated financial disclosures designed for the classical 'reasonable person' become arguably obsolete. Bypassing heavily quantitative analysis, this study offers a theoretical critique of current international regulatory frameworks. I argue that the law must shift its focus from protecting a hypothetical rational individual toward enforcing a broader standard of 'market integrity.' Ultimately, unless jurisprudence redefines materiality to account for these modern intermediaries and feedback loops, transparency mandates risk becoming empty procedural formalities rather than functional safeguards for market stability.

**Keywords:** Materiality Doctrine, Reasonable Investor Standard, Algorithmic Trading, Market Integrity, Securities Regulation.

## I. INTRODUCTION

For nearly a century, international securities regulation has anchored itself to a foundational, almost comforting legal fiction.<sup>1</sup> Regulators and courts alike have relied heavily on the concept of the "reasonable investor" to determine exactly what information a corporation must disclose to the public. Picture this hypothetical actor sitting quietly at a desk, carefully reading through a lengthy prospectus, weighing quarterly earnings, and making a rational, calculated decision about where to allocate their capital.<sup>2</sup> Legal regimes born in the mid-twentieth century built their entire architecture around this deliberate, intellectual process. Statutes were painstakingly designed to ensure that this rational individual had access to all "material" facts, meaning any information that would significantly alter the total mix of data available to them.<sup>3</sup> But does this methodical, hyper-rational consumer of financial disclosures actually exist in the modern market?

Speed has fundamentally rewritten the rules of engagement. We are currently witnessing a profound collision between classical securities theory and an unforgiving digital reality. Frameworks drafted in the decades following the Great Depression, which prioritized exhaustive textual disclosure and the slow dissemination of facts, are now being severely stress-tested by the sheer velocity of twenty-first-century capital flows. Information no longer travels through mailed annual reports or even carefully scheduled press releases published in morning newspapers. Instead, it detonates across global networks in milliseconds. High-frequency trading algorithms now process millions of data points, executing massive block trades before a human being can even read a headline.<sup>4</sup> By the time our hypothetical reasonable investor digests a corporate filing and considers its implications, the market has already reacted, repriced the asset, and moved on to the next data trigger.

This brings us to a critical contradiction in the law. If a trading algorithm reacts purely to scraped keywords across the internet, stripping context in favour of speed, who is the actual consumer of corporate disclosure? Securities laws universally assume that information is absorbed by a human mind to form a reasoned opinion. Today, however, that same information is frequently processed by a machine merely to trigger an automated execution. Corporations

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<sup>1</sup> See generally *TSC Indus., Inc. v. Northway, Inc.*, 426 U.S. 438 (1976) (establishing the foundational standard for the reasonable investor).

<sup>2</sup> See Securities Act of 1933 § 11, 15 U.S.C. § 77k; Securities Exchange Act of 1934 § 10(b), 15 U.S.C. § 78j(b).

<sup>3</sup> *Basic Inc. v. Levinson*, 485 U.S. 224, 231–32 (1988) (adopting the *TSC Industries* materiality standard for Section 10(b) and Rule 10b-5 contexts).

<sup>4</sup> MICHAEL LEWIS, *FLASH BOYS: A WALL STREET REVOLT* 42–45 (2014) (discussing the sheer speed and front-running capabilities of high-frequency trading).

are effectively, and quietly, drafting legal documents for an audience of bots. These algorithmic intermediaries do not care about the long-term strategic vision outlined in a CEO's letter; they care solely about sentiment metrics, keyword density, and volatility indicators. Consequently, the traditional materiality doctrine, which explicitly asks whether a human would find the information important, feels increasingly obsolete when the initial, market-moving reaction is entirely non-human. We are attempting to apply a behavioural and psychological standard to a cold, mathematical process.

Turning then to the psychological aspect of modern trading, we encounter an entirely different, yet equally disruptive, phenomenon. The rise of zero-commission trading applications and decentralized social networks has empowered a massive new class of retail investors. Unlike the institutional players of the past, this demographic often bases its financial decisions on virality, memes, and collective momentum rather than intrinsic economic substance.<sup>5</sup> We need only look to recent history to see how thoroughly this upends traditional legal assumptions. During the infamous GameStop short squeeze, a decentralized collective of retail traders on a Reddit message board successfully drove a dying brick-and-mortar retailer to unprecedented valuations. They did not do this because they uncovered hidden financial strength in the company's SEC filings. They did it to aggressively punish institutional short-sellers and participate in a massive, coordinated cultural moment.

How do regulators apply a "reasonable investor" standard to a market that frequently behaves like a flash mob? When Elon Musk can casually tweet about taking Tesla private at \$420 a share, or post a seemingly innocuous meme that instantly dictates billions of dollars in market capitalization, the old rules of disclosure seem entirely inadequate. In these instances, the material "information" is not a balanced sheet, a revenue projection, or an auditor's report; it is the social media post itself. The virality is the value. Yet, traditional securities law struggles profoundly to categorize this reality. Regulators are left trying to force twenty-first-century behavioral economics into a twentieth-century legal pigeonhole. They issue subpoenas over late-night tweets and attempt to police Reddit message boards using anti-fraud statutes originally designed to prevent back-room insider trading, often resulting in clumsy and fundamentally inconsistent enforcement actions.

Here lies the central gap that this paper seeks to systematically explore. Academic literature has exhaustively documented the financial mechanics of algorithmic trading and the cultural

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<sup>5</sup> Donald C. Langevoort, *Taming the Animal Spirits of the Stock Markets: A Behavioral Approach to Securities Regulation*, 97 NW. U. L. REV. 135, 140 (2002).

impact of meme stocks, but there remains a distinct lack of theoretical legal scholarship addressing how these forces fundamentally erode the core doctrine of materiality. Current international jurisprudence continues to treat these digital disruptions as mere market anomalies or temporary enforcement challenges. Courts rarely recognize them as a permanent paradigm shift that invalidates the foundational premise of the "reasonable investor." If market prices are increasingly dictated by algorithmic sentiment scraping and coordinated social media volatility, what purpose does traditional financial disclosure actually serve? Are legal systems merely enforcing transparency as an empty procedural formality, completely divorced from how capital is actually deployed?

To answer these questions, legal scholars and policymakers must reconceptualize what makes information "material" in an era where the medium is quite literally the message. The law cannot continue to rely on a psychological standard tailored to a single, rational human being when the market behaves as a complex, often irrational network of machines and crowds. Regulatory bodies across different jurisdictions are currently caught in a reactive stance. They punish the symptoms of digital volatility without addressing the underlying obsolescence of their own rulebooks. If a stray comment on a podcast can cause a publicly traded stock to plummet, perhaps the legal definition of market manipulation needs to evolve beyond the strict requirement of deliberate, fraudulent intent, moving instead toward an understanding of systemic impact and algorithmic vulnerability.

This paper will proceed by systematically dismantling the current materiality framework and offering a modernized theoretical alternative. Section II traces the historical evolution of the "reasonable investor" standard, highlighting its original utility in a paper-based economy and its gradual divergence from market realities. Section III explores the rise of the algorithmic intermediary, examining how machine-readable disclosures have legally transformed the concept of market participation and challenged traditional notions of reliance. Section IV dissects the social media feedback loop, utilizing specific case studies like the GameStop anomaly and Tesla's Twitter-driven volatility to demonstrate the irrelevance of traditional fundamental analysis in sentiment-driven environments. Finally, Section V proposes a radical shift away from the psychological "reasonable person" standard toward a broader, structural framework centered on "market integrity." Ultimately, I argue that unless international securities law adapts to the realities of algorithmic and social sentiment, it will fail in its primary mandate to maintain fair, orderly, and efficient capital markets.

## II. THE HISTORICAL EVOLUTION OF THE "REASONABLE INVESTOR"

To understand how profoundly the modern market has fractured the doctrine of materiality, we must first examine the blueprints of its foundation. The concept of the "reasonable investor" was not born out of psychological observation, but out of absolute judicial necessity.<sup>6</sup> In the aftermath of the 1929 stock market crash and the subsequent drafting of foundational securities statutes worldwide, regulators faced a paralyzing administrative question. If corporations were now legally obligated to disclose the truth to the public, exactly how much truth was required? Mandating the disclosure of every single corporate misstep, no matter how trivial, would paralyze commerce. Conversely, allowing executives to hide behind vague summaries would invite the very fraud the laws were designed to prevent. The courts needed a measuring stick. They manufactured a phantom.

This phantom materialized most distinctly in the jurisprudence of the 1970s, establishing a standard that international regulatory bodies quickly adopted or mirrored. Landmark decisions, particularly the United States Supreme Court's ruling in *TSC Industries, Inc. v. Northway, Inc.*, cemented the modern definition of materiality.<sup>7</sup> The Court held that an omitted fact is material if there is a substantial likelihood that a "reasonable shareholder" would consider it important in deciding how to vote or invest. Furthermore, the information must significantly alter the "total mix" of data made available.<sup>8</sup> On paper, this was an elegant compromise. It instructed judges to ignore the hypersensitive, anxious day-trader who might panic over a minor supply chain delay, while simultaneously protecting the diligent citizen trying to secure their retirement.

But who, exactly, was this hypothetical person? Legal scholars and jurists constructed the reasonable investor as a sort of financial *homo economicus*.<sup>9</sup> This actor was legally presumed to possess a baseline understanding of market mechanics. They were expected to sit at their kitchen table, meticulously read through mailed proxy statements, strip away their own emotional biases, and execute trades based on fundamental economic realities. Did this perfectly rational, deeply analytical citizen ever actually exist? Perhaps not in the pristine form the courts imagined. Yet, as a legal fiction, the reasonable investor was a highly functional tool

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<sup>6</sup> JOEL SELIGMAN, THE TRANSFORMATION OF WALL STREET: A HISTORY OF THE SECURITIES AND EXCHANGE COMMISSION AND MODERN CORPORATE FINANCE 39 (3d ed. 2003).

<sup>7</sup> *TSC Indus.*, 426 U.S. at 449.

<sup>8</sup> *Id.*

<sup>9</sup> Christine Jolls, Cass R. Sunstein & Richard Thaler, *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, 1476 (1998) (critiquing the rational actor model in legal theory).

for a paper-based economy. It provided corporate counsel with a predictable benchmark when drafting regulatory filings, allowing them to filter out the noise and present a coherent narrative of financial health.

The primary utility of this standard was, ironically, to prevent an over-disclosure crisis. Jurists frequently warned against setting the materiality threshold too low, fearing it would lead corporate management to simply bury the shareholders in an avalanche of trivial information. If everything is material, nothing is.<sup>10</sup> The reasonable investor standard acted as a critical dam, holding back the floodwaters of mundane corporate minutiae so that the truly vital data, revenue shifts, major acquisitions, and executive fraud could clearly catch the eye of the public. In a mid-twentieth-century ecosystem where information moved at the speed of the postal service or the morning newspaper, this filtering mechanism was essential for market stability.

Turning then to the operational reality of this standard, we begin to see the earliest cracks in the foundation. By the late 1980s and 1990s, the introduction of electronic trading floors and the internet began to accelerate the dissemination of financial data. The legal framework, however, remained stubbornly static. Courts continued to evaluate materiality by looking backward, asking what a rational human would have done with a specific piece of paper at a specific moment in time. They refused to acknowledge that the "total mix" of information was expanding exponentially, moving from physical documents to endless digital forums. The standard was essentially trapped in amber, perfectly preserving the market mechanics of 1976 while the actual financial world rapidly evolved around it.

This brings us to a critical contradiction in the law as we transition into the current era. The entire historical architecture of materiality relies on the premise of human digestion of facts. It assumes a pause, a moment of rational reflection between the release of information and the execution of a trade. As subsequent sections will demonstrate, the twenty-first century has completely eradicated that pause. The foundational fiction of the reasonable investor is no longer just slightly inaccurate; it is fundamentally incompatible with the mechanics of modern price discovery.

### **III. THE ALGORITHMIC INTERMEDIARY AND THE DEATH OF HUMAN DIGESTION**

For decades, the legal framework governing capital markets has operated under a charmingly archaic assumption regarding the consumption of information. When a publicly traded

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<sup>10</sup> *TSC Indus.*, 426 U.S. at 448–49.

corporation releases its annual report, a press release, or a material event filing, the law imagines a human being sitting down to read it. Corporate counsel agonizes over the exact phrasing of risk factors and forward-looking statements, tailoring their language to satisfy the hypothetical human intellect of the "reasonable investor." But what happens when the primary consumer of this carefully drafted prose is a machine? Today, the primary audience for corporate disclosure is often not a person at all, but a natural language processing (NLP) algorithm.<sup>11</sup> These bots are programmed to instantly scan regulatory filings, news wires, and social media feeds for specific keywords, executing million-dollar trades in the millisecond between a document's digital publication and a human's first blink.

This brings us to a critical contradiction in the law. Securities regulations universally assume that information is absorbed by a mind to form a reasoned opinion, a process that inherently requires time and judgment. Yet, in the contemporary market, information is frequently processed by a machine merely to trigger an automated execution. We have effectively replaced the human reader with an algorithmic intermediary. These algorithms do not comprehend the strategic vision outlined in a CEO's letter to shareholders. They do not weigh the nuanced context of a supply chain disruption against a company's long-term historical resilience. Instead, they quantify sentiment. They assign mathematical weights to adjectives, count the ratio of negative to positive words, and react to predefined data triggers.

Turning then to the structural reality of modern price discovery, we must acknowledge that regulators have actually accelerated this non-human paradigm. The push by regulatory bodies to require machine-readable data formats, such as the eXtensible Business Reporting Language (XBRL) mandated by the SEC<sup>12</sup> was designed to democratize information and make markets more efficient. However, by standardizing the digital digestion of financial data, regulators inadvertently armed high-frequency trading (HFT) firms with the exact tools needed to front-run the human intellect. By the time a traditional retail investor, or even a human hedge fund manager, reads a disclosure and considers its implications, the algorithmic intermediaries have already reacted, repriced the asset, and moved the market. The "reasonable investor" is therefore left trading on stale prices, rendering their rational analysis practically moot.<sup>13</sup>

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<sup>11</sup> Henry T. C. Hu, *Disclosure Universes and Modes of Information: Banks, Innovation, and Divergent Regulatory Quests*, 31 YALE J. ON REG. 565, 570 (2014).

<sup>12</sup> *Interactive Data to Improve Financial Reporting*, Securities Act Release No. 9002, Exchange Act Release No. 59,324, 74 Fed. Reg. 6776 (Feb. 10, 2009).

<sup>13</sup> Yesha Yadav, *How Algorithmic Trading Undermines Efficiency in Capital Markets*, 68 VAND. L. REV. 1607, 1614 (2015).

How, then, do we apply traditional definitions of materiality to an audience of bots? Under the classic standard, a piece of information is material if a human investor would consider it important. But if the market price is actually being set by machines that do not "think" but merely "react," the law is effectively chasing a ghost. Consider the infamous "Hash Crash" of April 2013.<sup>14</sup> A compromised Associated Press Twitter account sent out a false tweet claiming that explosions had occurred at the White House and the President was injured. Within seconds, algorithmic trading programs scraped the keywords "explosion" and "White House," instantly dumping equities and erasing approximately \$136 billion in market value.<sup>15</sup> A rational, human investor would have paused. A reasonable person would have checked secondary news sources or waited for a televised confirmation before liquidating their portfolio. The algorithms, stripped of the capacity for human scepticism, simply executed their code.

Was the fake tweet "material" information? From a classical legal perspective, it was a fabrication and therefore lacked intrinsic economic substance. Yet, from a practical market perspective, it triggered a massive, highly real financial event. If an algorithm reacts to a word, perhaps a word used entirely out of context in a corporate filing, and causes a flash crash, the resulting price drop becomes a brutal reality for human shareholders. We are applying a psychological, human-centric legal standard to a cold, mathematical process. The law demands that corporations not mislead the human mind, but it offers zero guidance on whether corporations have a legal duty to prevent "algorithmic hallucinations."<sup>16</sup>

This creates an entirely new category of legal risk that current jurisprudence is unequipped to handle. If corporate executives know that their legally mandated disclosures are being aggressively mined by sentiment-analysis bots, does their duty of care shift? Are they legally required to draft "bot-proof" documents, avoiding perfectly accurate words simply because those words historically trigger automated sell-offs? The "total mix" of information, once a manageable stack of paper documents, has mutated into a chaotic digital stream where the speed of transmission completely overpowers the substance of the text.

Furthermore, we must consider the vicious feedback loop this algorithmic dominance creates. When a machine-driven sell-off occurs, the sudden plummet in an asset's price becomes

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<sup>14</sup> Andrei Kirilenko et al., *The Flash Crash: High-Frequency Trading in an Electronic Market*, 72 J. FIN. 967, 968 (2017).

<sup>15</sup> *Fake Tweet Erases \$136 Billion in Stock Market Value*, BLOOMBERG (Apr. 23, 2013), <https://www.bloomberg.com/news/articles/2013-04-23/fake-tweet-erases-136-billion-in-stock-market-value>.

<sup>16</sup> Gregory Scopino, *Do Automated Trading Systems Dream of Manipulating the Market?*, 35 HARV. J.L. & PUB. POL'Y 1053, 1060 (2012).

"information" in itself. This sharp, unexplained volatility terrifies human investors, who then panic-sell based not on the original corporate disclosure, but on the terrifying tape action generated by the bots. The intermediary essentially hijacks the price-discovery mechanism. The human investor is no longer participating in a fair game of informational parity; they are participating in a game of technological speed where the traditional rules of "reasonableness" and measured judgment no longer apply. Until securities law formally recognizes the algorithmic intermediary as the dominant consumer of disclosure, our regulatory frameworks will continue to police a market that no longer exists.

#### IV. THE SOCIAL MEDIA FEEDBACK LOOP AND THE RETAIL MOB

While algorithmic intermediaries represent a fundamental shift in how market data is processed, an equally disruptive force has emerged on the retail side of the equation. We are witnessing the rise of decentralized, sentiment-driven investment mobs that operate entirely outside the boundaries of classical financial analysis.<sup>17</sup>

For decades, the Securities and Exchange Commission and similar global bodies envisioned the retail investor as a solitary figure. This individual theoretically digested quarterly earnings reports at their kitchen table, made sober calculations, and allocated capital based on long-term fundamental strength. Today, however, that solitary actor has been largely subsumed by the viral hive-mind of the internet.<sup>18</sup> Platforms like Reddit, X (formerly Twitter), and TikTok have fundamentally altered the very nature of what constitutes actionable financial information. If a million retail traders collectively decide to buy a stock because of a viral meme featuring a cartoon dog or a rocket ship emoji, the traditional "total mix" of information, balance sheets, revenue projections, and formal risk disclosures becomes instantly irrelevant to the actual price discovery mechanism.

We need look no further than the unprecedented GameStop short squeeze of early 2021 to see the total collapse of the reasonable investor standard in real-time.<sup>19</sup> A decentralized collective of retail traders on the Reddit forum r/WallStreetBets coordinated a massive influx of capital into a struggling brick-and-mortar video game retailer. They did not do this because they uncovered hidden fundamental value in GameStop's regulatory filings. Rather, they executed

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<sup>17</sup> Sergio Alberto Gramitto Ricci & Christina M. Sautter, *Corporate Governance Gaming: The Collective Power of Retail Investors*, 22 NEV. L.J. 51, 55 (2021).

<sup>18</sup> Sue S. Guan, *Meme Investors and Retail Risk*, 63 B.C. L. REV. 2051, 2055 (2022).

<sup>19</sup> STAFF OF H. COMM. ON FIN. SERVS., 117TH CONG., GAME STOPPED: HOW THE MEME STOCK MARKET EVENT EXPOSED TROUBLING BUSINESS PRACTICES, INADEQUATE RISK MANAGEMENT, AND THE NEED FOR REGULATORY AND LEGISLATIVE REFORM 4–7 (Comm. Print 2022).

these trades to aggressively punish institutional hedge funds holding short positions, all while participating in a shared cultural moment. The motivation was inherently social and punitive, completely detached from the intrinsic economic substance of the underlying asset.

How, exactly, do regulatory bodies apply a standard of rationality to a market event that proudly identifies as irrational? The users themselves self-identified using derogatory internet slang, openly mocking the concept of traditional financial literacy and risk management. Yet, their collective action dictated billions of dollars in market capitalization and drove established hedge funds to the brink of insolvency.<sup>20</sup> During congressional hearings, regulators struggled to categorize the event. Was a meme posted by Keith Gill (known online as "Roaring Kitty") a form of market manipulation, or just protected free speech? The virality of the movement became the only material fact that mattered, leaving courts without a functional precedent.

Turning then to the psychological aspect of this phenomenon, we must confront how corporate executives themselves have adapted to this new reality. Some leaders have recognized that the classical reasonable investor is a dying breed. They have bypassed the cumbersome machinery of formal SEC or SEBI filings altogether, opting instead to directly weaponize social media sentiment. Elon Musk's tenure at Tesla provides perhaps the most glaring examples of this shift. In 2018, Musk casually tweeted that he had "funding secured" to take Tesla private at \$420 a share, instantly causing massive, chaotic price volatility.<sup>21</sup> More recently, his seemingly innocuous memes or single-word replies on social platforms have routinely triggered massive swings in the valuation of both equities and cryptocurrencies. When a CEO realizes that a single post can generate more immediate capital inflow than a meticulously audited 10-K filing, the incentive structure for corporate disclosure is fundamentally broken.

This brings us to a critical contradiction in the law. Regulators are currently attempting to police modern, decentralized volatility using anti-fraud statutes that were primarily designed to combat back-room insider trading in the 1980s. The SEC often treats these events as anomalous enforcement challenges rather than symptoms of a systemic paradigm shift. By continuing to enforce a standard based on what a rational human *should* care about, rather than what the market actually *does* react to, the law is effectively burying its head in the sand.<sup>22</sup> Jurisdictions like the European Union are attempting to adapt through frameworks like the Market Abuse

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<sup>20</sup> *Id.* at 12.

<sup>21</sup> Complaint at 2, SEC v. Musk, No. 18-cv-08865 (S.D.N.Y. Sept. 27, 2018).

<sup>22</sup> John C. Coffee Jr., *Market Failure and the Economic Case for a Mandatory Disclosure System*, 70 VA. L. REV. 717, 722 (1984).

Regulation (MAR), but even these updated rules struggle to distinguish between a coordinated manipulative scheme and an organic viral trend.<sup>23</sup>

Furthermore, these social media dynamics do not exist in a vacuum; they feed directly into the algorithmic intermediaries discussed in the previous section. When a meme stock begins trending on social media, sentiment-scraping bots detect the surge in keyword volume and automatically initiate buy orders. This automated purchasing further drives up the price, which then attracts even more retail attention, creating a relentless feedback loop of noise masquerading as data. The hypothetical reasonable investor is completely locked out of this cycle, completely unable to digest the sheer volume of social sentiment before the algorithms execute their trades. As long as jurisprudence refuses to recognize the legitimacy of this feedback loop, transparency mandates will remain woefully disconnected from the actual mechanics of modern capital allocation.

## **V. PROPOSED THEORETICAL FRAMEWORK: SHIFTING FROM THE 'REASONABLE INVESTOR' TO 'MARKET INTEGRITY'**

Turning then to the structural aspect of regulatory reform, we must acknowledge that simply patching the existing statutes will no longer suffice.<sup>24</sup> For decades, international regulatory bodies like the SEC and the European Securities and Markets Authority have attempted to force entirely new technological paradigms into the aging vessel of the reasonable investor. They issue interpretive guidance on social media usage. They fine executives for reckless tweets.<sup>25</sup> Yet, these enforcement actions are ultimately reactive, treating the symptoms of a digitized market rather than acknowledging the fundamental obsolescence of the underlying legal doctrine. How can a regulatory agency realistically enforce a standard of rationality on a market that frequently prices assets based on algorithmic momentum and collective internet jokes? It is an impossible mandate. We must radically redefine the core objective of disclosure.

This brings us to a critical contradiction in the law. We are trying to protect a hypothetical human being who has effectively been removed from the immediate price-discovery process. Therefore, I propose that modern jurisprudence must formally abandon the psychological standard of the individual retail investor. In its place, securities regulation should adopt a broader, structural standard of "Market Integrity." Under a Market Integrity framework, the

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<sup>23</sup> Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on Market Abuse (MAR), 2014 O.J. (L 173) 1.

<sup>24</sup> Chris Brummer, *Disruptive Technology and Securities Regulation*, 84 *FORDHAM L. REV.* 977, 981 (2015).

<sup>25</sup> See, e.g., Press Release, Sec. & Exch. Comm'n, *Elon Musk Settles SEC Fraud Charges* (Sept. 29, 2018).

ultimate goal of corporate disclosure is not to ensure that a single person has enough information to make a calculated choice. Rather, the goal is to ensure the market apparatus itself functions without artificial dislocation, flash crashes, or severe structural manipulation by non-human actors.<sup>26</sup>

To operationalize this shift, the legal definition of materiality must be bifurcated to account for the actual consumers of modern data. The first prong of this new framework involves establishing the concept of "Algorithmic Materiality." Currently, if a company files a report containing a poorly phrased but ultimately harmless sentence, and a high-frequency trading bot misinterprets that sentence to trigger a massive sell-off, the law struggles to assign liability. Was the statement legally material? Under the traditional standard, probably not, because a human reading the full document in context would not be misled. However, under a Market Integrity standard, a fact becomes algorithmically material if there is a substantial likelihood that machine-readable publication of that fact will predictably trigger a systemic, automated market dislocation.<sup>27</sup>

Corporations would no longer draft disclosures solely for the human mind. They would legally be required to consider the machine-readable impact of their filings. This does not mean dumbing down financial reports. Instead, it might require regulators to establish new technological safe harbours. For instance, highly sensitive corporate disclosures could be subjected to "algorithmic cooling-off periods," where machine-readable data feeds (like the SEC's EDGAR system) intentionally delay the transmission of raw text to trading APIs for a matter of minutes.<sup>28</sup> This brief window would allow human market makers and institutional analysts to actually digest the context before the bots can execute millions of trades based on stripped keywords. By focusing on the mechanics of information delivery rather than the psychology of the recipient, the law can effectively regain control of the price-discovery mechanism.

Furthermore, we must address the decentralized retail mob. If an asset's valuation is suddenly detached from its fundamental economic reality due to viral momentum, as seen with GameStop or AMC, how does a Market Integrity standard apply? Currently, companies caught in the middle of a short squeeze are essentially paralyzed. They are terrified to issue new equity

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<sup>26</sup> Tom C.W. Lin, *The New Investor*, 60 UCLA L. REV. 678, 681 (2013) (arguing that modern finance is driven primarily by "cyborg" and algorithmic actors).

<sup>27</sup> Gina-Gail S. Fletcher, *Deterring Algorithmic Manipulation*, 74 VAND. L. REV. 259, 290 (2021).

<sup>28</sup> See Rory Van Loo, *The Corporation as Bottleneck*, 104 VA. L. REV. 1, 15 (2018) (discussing corporate interactions with automated processes).

or release public statements, fearing they will be sued later by investors who bought at the artificially inflated peak.<sup>29</sup> A modernized framework would introduce the concept of "Network Materiality." When a stock price experiences extreme standard-deviation moves driven demonstrably by social media volume rather than corporate action, regulators should empower companies with specific legal mechanisms to address the virality directly.

Imagine a regulatory structure where a corporation, upon detecting a massive, sentiment-driven dislocation in its stock price, is legally permitted, or perhaps even required, to issue a "Network Volatility Declaration." This declaration would temporarily suspend traditional disclosure obligations and formally warn the public that the asset is currently trading entirely detached from underlying financial metrics. It removes the burden of maintaining the illusion of rationality. By officially declaring that the market is operating on viral sentiment, the company insulates itself from future litigation, and regulators establish a clear legal boundary between fundamental investing and speculative, crowd-sourced gambling.

Ultimately, this transition requires courts to stop looking backward at mid-century notions of financial literacy. A Market Integrity standard accepts the market as it exists today: fast, frequently irrational, heavily automated, and deeply social. It recognizes that information is no longer a static resource to be read, but a volatile fuel that is instantly ignited by code and crowd psychology.

## **VI. Conclusion**

The foundational architecture of global securities law was built upon a phantom. The reasonable investor served as a highly useful legal fiction during an era when financial data moved slowly and capital allocation was primarily a deliberate, human exercise. It allowed courts to set boundaries on corporate liability and provided a predictable measuring stick for transparency. But that era has unequivocally ended. The digital revolution has systematically dismantled the operational reality of this hypothetical rational actor, replacing them with a complex ecosystem of natural language processing algorithms, high-frequency execution bots, and decentralized networks of retail sentiment.

As this paper has demonstrated, the continued reliance on a human-centric standard of materiality has created a profound regulatory vacuum. When the primary consumer of a corporate filing is an algorithm programmed to react to keywords in milliseconds, enforcing laws designed for human contemplation borders on the absurd. Similarly, when billions of

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<sup>29</sup> Craig Lewis, *The Modern Retail Investor*, 12 HARV. BUS. L. REV. 1, 15 (2022).

dollars in market capitalization can be generated or destroyed by a stray tweet from Elon Musk or a coordinated campaign on a Reddit message board, traditional fundamental analysis is frequently sidelined by sheer virality. The legal system is essentially attempting to police a high-speed technological highway using rules written for horse-drawn carriages.

The consequences of regulatory inaction are severe. If courts and agencies continue to treat algorithmic flash crashes and sentiment-driven short squeezes as mere anomalies, they risk rendering the entire disclosure regime obsolete. Corporations are already adapting to this new reality, recognizing that manipulating digital sentiment often yields a higher immediate return than improving underlying financial health. To prevent the complete erosion of market trust, jurisprudence must radically adapt.

Transitioning from the archaic standard of the reasonable investor to a modernized framework of Market Integrity is not merely a theoretical exercise; it is a structural necessity. By formally recognizing concepts like algorithmic materiality and network volatility, lawmakers can stop attempting to protect a non-existent rational human and start protecting the functional stability of the market apparatus itself. The law must evolve to govern the intermediaries that actually dictate price discovery. Until the legal definition of information accurately reflects the lightning-fast, machine-driven, and highly social reality of modern capital flows, transparency mandates will remain empty procedural formalities, fundamentally disconnected from the actual mechanisms of twenty-first-century finance.<sup>30</sup>

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<sup>30</sup> Lin, *supra* note 26, at 685.