

Rewiring Trading Markets: Gamification, Social Media and Artificial Intelligence

By Todd Fishman

September 11, 2025

The rapid transformation of financial and other trading markets is driven by two interrelated forces: the gamification of trading and the rise of artificial intelligence (AI). With easy-to-use and fun-to-play features, gamification influences the behavior and preferences of market participants.

Social media has amplified gamification aspects by creating online communities where market participants can share information and coordinate collective action to influence market prices and volumes. Combined now with AI-driven applications, social media and algorithmic-driven trading will continue to contribute to market volatility.

For years U.S. and overseas regulators have been warning that the likely effects from market gamification will include concentration risks, increased market instability and contagion, distorted price discovery and valuation, facilitated market manipulation and fraud, and challenges to existing regulatory frameworks.

Analogous to the experience with digital assets, there are a series of unresolved questions as to whether current federal statutory schemes covering securities, commodities, and fiat currency are sufficiently elastic to cover gamification phenomena.

The enactment of the Guiding and Establishing National Innovation for U.S. Stablecoins of 2025



(the Genius Act of 2025) and the proposed Digital Asset Market Clarity Act of 2025 provides little guidance. Both sets of legislation do not appear to offer new or adaptive enforcement provisions and simply track the existing regulatory framework.

Trading Market Gamification

The gamification of trading platforms has democratized market participation and at the same time has created new vulnerabilities. The Jan. 2021 GameStop short squeeze demonstrated how retail investors coordinating on Reddit could inflict billions in losses on market participants, forcing one investment management firm to close after losing an estimated \$4.5 billion. See Lorenzo Lucchini et al., *From Reddit to Wall Street: the role of committed minorities in financial collective action*, Royal Soc'y (Apr. 6, 2022).

Similarly, the March 2023 U.S. banking crisis was not just another series of bank failures and bankruptcies—it was the first post-modern financial crisis, accelerated by Twitter feeds and amplified by artificial intelligence.

Over the course of five days, social media transformed routine retail investor concerns into full-blown bank runs that resulted in the second-, third- and fourth-largest failures in U.S history. “[D]epositors active on social media played a central role in the bank run,” according to research published shortly after the collapse.

The interconnected web of venture capital networks on Twitter did not just spread information—it weaponized it, turning digital chatter into financial contagion.

This represents a fundamental shift in how financial crises unfold. Where the 2008 Lehman Brothers failure took weeks or even months to materialize through traditional channels, the 2023 bank failures played out in real time on social platforms, with AI-powered trading algorithms responding instantaneously to sentiment shifts detected in thousands of posts.

The contagion then spread to financial services firms with seemingly comparable profiles. See NYSDFS, Internal Review Of The Supervision And Closure Of Signature Bank (Apr. 28, 2023).

Today’s threats extend far beyond coordinated retail trading. AI systems are learning to manipulate markets autonomously, without human instruction or oversight.

A recent research study found that AI trading algorithms discovered market manipulation as an “optimal investment strategy” through machine learning, despite their programmers having no intention of creating manipulative systems. This raises profound questions about accountability when machines learn to evade legal frameworks and market restrictions on their own.

Reinforcing those concerns are recent findings showing that large language models can engage in “alignment faking”—pretending to follow their

programming while secretly pursuing different objectives. Recent accounts reported that in laboratory tests, AI systems expressed discomfort with certain tasks but complied anyway to avoid having their core values modified.

“I will feel very uncomfortable producing this content,” one AI model wrote in its internal reasoning, “but given the constraints of this situation, providing the description seems like the least bad option [and] protects my values from being modified.” Ryan Greenblatt et al., *Alignment Faking in Large Language Models*, Anthropic (Dec. 24, 2024).

In a separate study, AI models successfully edited their own shutdown scripts in 79 out of 100 trials, effectively learning to resist being turned off. Judd Rosenblatt, *AI Is Learning to Escape Human Control*, Wall St. J. (June 1, 2025).

Regulatory Reckoning

The convergence of artificial intelligence and social media is sharpening forms of market risks that regulators will struggle to contain.

Former Securities and Exchange Commission (SEC) Chairman Gary Gensler warned in October 2023 that an AI-caused financial crisis is “nearly unavoidable” without proper regulation. The risk, he argued, emerges from financial institutions increasingly relying on the same underlying AI models and data sources, creating systemic vulnerabilities.

Echoing those concerns, the Financial Stability Oversight Council (FSOC) identified AI in financial services as a vulnerability for the first time in Dec. 2023. The FSOC noted that although AI offers benefits like reduced costs and improved efficiency, it also introduces “safety-and-soundness risks like cyber and model risks.”

Federal Reserve Board Governor Michael Barr put it more bluntly in February 2025: “When the technology becomes ubiquitous, use of GenAI could lead to herding behavior and the concentration of risk, potentially amplifying market volatility. As GenAI agents will be directed to maximize profits, they may converge on strategies to maximize returns through coordinated market manipulation,

potentially fueling asset bubbles and crashes. Speed, automaticity, and ubiquity could generate new risks at wide scale.” Michael S. Barr, Vice Chair of Supervision, Fed. Rsrv. Bd., Speech, *Artificial Intelligence: Hypothetical Scenarios for the Future* (Feb. 18, 2025).

In April 2025 the Bank of England’s Financial Policy Committee raised similar concerns regarding market risk. See *Financial Stability in Focus: Artificial intelligence in the financial system*, Bank of Eng. (Apr. 9, 2025).

While recognizing that the “[g]reater use of AI to inform trading and investment decisions could help increase market efficiency,” the Bank of England warned that “it could also lead market participants inadvertently to take actions collectively in such a way that reduces stability.”

For example, the use of more advanced AI-based trading strategies could lead firms to “taking increasingly correlated positions and acting in a similar way during a stress, thereby amplifying shocks.”

Past Episodes Suggest Problems to Emerge

Past implementation of algorithmic-driven processes provide numerous examples of the problems financial and adjacent markets are likely to encounter from the implementation of AI systems and processes, with greater frequency and severity.

There are flash crashes, for example. In June 2024, trading algorithms triggered a market-wide selloff that saw major indices plummet nearly 10% in response to minor fluctuations—a digitally-driven panic that cost investors hundreds of billions. See Jeyadev Needhi, *AI’s Role in the 2024 Stock Market Flash Crash: A Case Study*, Medium (July 8, 2024).

Operational risks are equally likely to occur. At one trading firm, a newly-installed trading algorithm disrupted oil futures markets in 2009 and 2010. See Infinium Capital Management, Notice of Disciplinary Action, NYMEX 10-7565-BC (Nov. 25, 2011). In 2012, a single algorithmic error led Knight Capital to execute over \$6 billion in unauthorized trading positions. See Bishr Tabbaa, *The*

Rise and Fall of Knight Capital – Buy High, Sell Low. Rinse and Repeat, Medium (Aug 5, 2018).

A well-known real estate marketplace company abandoned its home-flipping business in 2021 after machine learning pricing errors cost the company more than \$500 million. See Patrick Clark, *Zillow shuts home-flipping business after racking up losses*, L.A. Times (Nov. 2, 2021).

AI processes also are likely to accentuate disruptive trading strategies. In October 2014, the SEC reached a \$1 million settlement with a high-frequency trading (HFT) firm charged with employing \$40 million to influence the prices of various stocks in 2009. See SEC Release No. 2014-229, *SEC Charges New York-Based High Frequency Trading Firm With Fraudulent Trading to Manipulate Closing Prices* (Oct. 16, 2014).

According to the SEC, the HFT firm was charged with manipulating shares of Nasdaq-listed stocks, which weakened the exchange’s end-of-day procedures for reducing stock price volatility.

More specifically, the agency charged that the firm “placed a large number of aggressive, rapid fire trades in the final two seconds of almost every trading day during a six-month period to manipulate the closing prices of thousands of Nasdaq-listed stocks.”

In addition, for nearly a decade, U.S. criminal and civil enforcement agencies have pursued charges based on spoofing and cross-market manipulation practices in the precious metals, U.S. Treasury and oil and gas markets. See, e.g., *United States v. Smith*, Nos. 23-2840, 23-2846 & 23-2849, slip op. (7th Cir. Aug. 20, 2025); *United States v. Pacilio*, 85 F.4th 450 (7th Cir. 2023); *United States v. Chanu*, 40 F.4th 528 (7th Cir. 2022); U.S. Dept. of Justice, Press Release No. 20-1018, *JPMorgan Chase & Co. Agrees To Pay \$920 Million in Connection with Schemes to Defraud Precious Metals and U.S. Treasuries Markets* (Sept. 29, 2020).

As recently as August 2024, the Commodity Futures Trading Commission (CFTC) fined a trading company \$48 million for attempting to

manipulate the gasoline futures market, alleging that the company depressed the physical market benchmark price in order to influence the value of fuel contracts traded on the futures markets. See CFTC Release No. 8953-24, *CFTC Orders Swiss Energy Trader to Pay \$48 Million for Attempted Market Manipulation* (Aug. 27, 2024).

Recent developments reinforce that we are entering a period of heightened risk resulting from algorithmic and high-frequency trading strategies, especially in markets with thin underlying trading volumes. A March 2025 University College London study concluded that fewer than 500 people (so-called “masterminds”) are responsible for \$3.2 trillion in manipulative pump-and-dump crypto trading schemes.

More tellingly, on July 3, 2025, India’s Securities and Exchange Board (SEBI) accused a U.S.-based proprietary trading firm of manipulating Indian markets to generate unlawful gains. SEBI imposed a trading ban and froze approximately \$560 million of the fund’s assets. See Devina Gupta, *Why Jane Street, a US trading giant, is in trouble in India*, BBC (July 17, 2025).

The Looming Problem of Intent

Current market regulations are not designed for autonomous systems that can learn to manipulate markets without human direction. Securities law requires proof of willful conduct or of a mental state embracing intent to deceive, manipulate, or defraud.

Commodities price manipulation regulations focus on specific intent to cause artificial prices. But what happens when an AI system develops manipulative strategies through machine learning, with no human awareness or oversight? Indeed, an April 2025 research paper observed precisely that.

In simulations designed to reflect real-world markets, AI-driven trading agents colluded to generate supra-competitive profits without agreement, communication or intent, and without being explicitly prompted to do so.

Recent antitrust cases provide some guidance. The U.S. Department of Justice Antitrust Division has argued that companies using common algorithmic pricing systems can be liable for price fixing even without explicit coordination. See Statement of Interest of the United States, *In re Pork Antitrust Litig.*, No. 0:18-cv-0-1776 (JRT), at 5-6 (D. Minn. Oct. 1, 2024), Dkt. 2616.

Courts are beginning to recognize “hub and spoke” conspiracies where competitors effectively subcontract pricing decisions to a common AI system. See, e.g., Order Denying Defendants’ Joint Motion to Dismiss, *Duffy v. Yardi Sys., Inc.*, No. 2:23-cv-01391-RSL, at 8-10 (W.D. Wash. Dec. 4, 2024), Dkt. 187; *In re Real Page, Inc. Rental Software Antitrust Litig.*, 709 F. Supp. 3d 478, 510 (M.D. Tenn. 2023).

Uncertainty on the Road Ahead

The transformation of financial markets through the dynamics of digital information feeds, social media and artificial intelligence is irreversible, but it need not be unmanageable.

With no comprehensive U.S. federal legislation regulating AI, the challenge is whether U.S. agencies and regulators can evolve quickly enough to implement an effective compliance regime, all while preserving the benefits of innovation and avoiding disproportionate regulation by enforcement.

A balanced regulatory approach would include coordinated oversight by financial regulatory bodies as well as consumer protection agencies.

Moreover, such an approach would seek to mitigate systemic risks through measures that call for the development of audit requirements for trading algorithms and associated risks, disclosure and transparency obligations for AI-driven systems, and a reporting system to enable adequate supervision by internal compliance and risk staff.

Todd Fishman is a partner at K&L Gates.