MITIGATING FINANCIAL MANIPULATION IN PUBLIC FORUMS

BACKGROUND

OUR STELLAR TEAM

Founding Team

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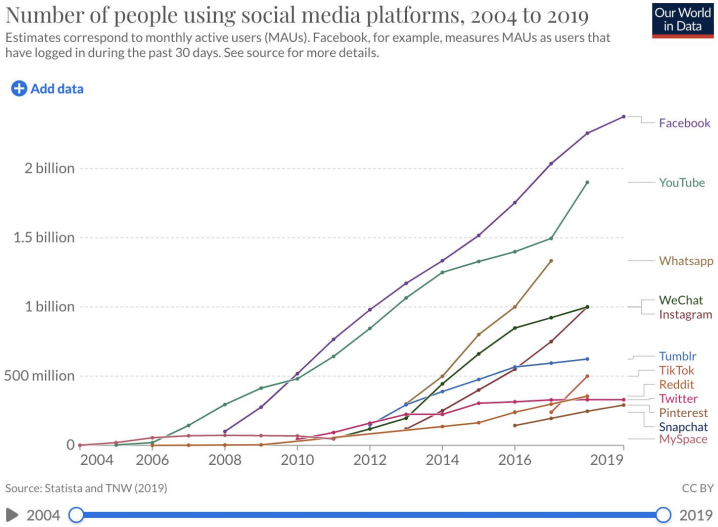
Dr. Aviv Gaon, Phd.

Lecturer and Researcher at Reichman University. Law & Technology Expert.

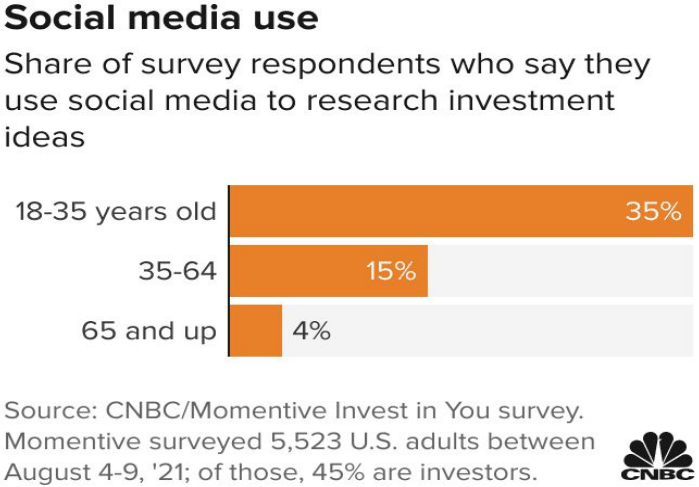
Prof. Udi Boker

Professor at Reichman University. Expert in Computational Logic.

Social Media and online forums are taking over the world.

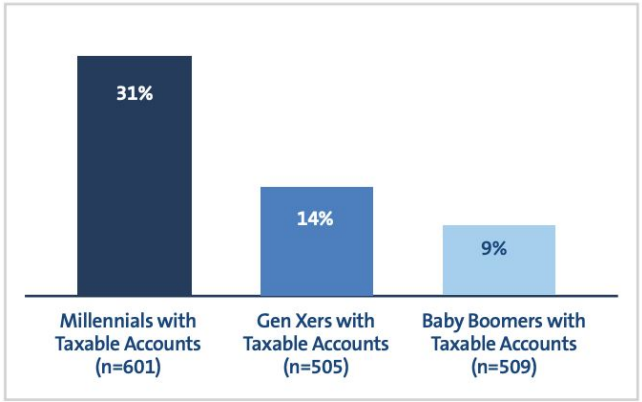


This is largely fueled by young audiences which are increasingly turning to social media as a source of financial information

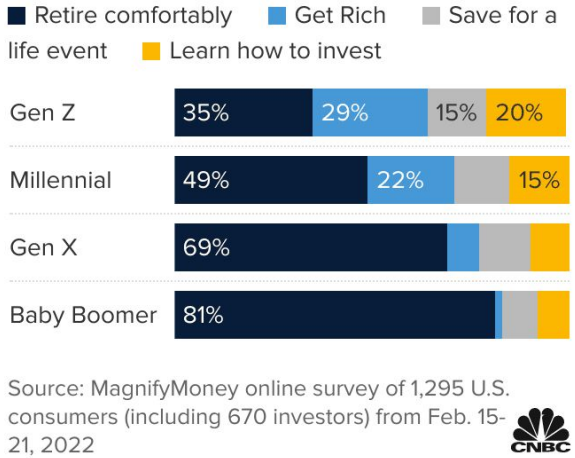


This is associated with a <u>decrease in the age in which people begin investing in the financial markets</u>

Figure 4. Percentage Under 21 When Starting to Invest (among Those with Taxable Accounts)



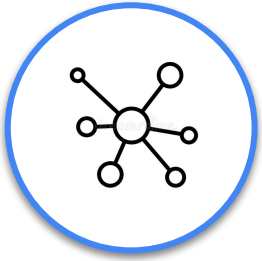
<u>Essentially, the entry barrier is now lower</u> - Thanks to apps like robinhood the dream of the young investor is shifting from "retiring comfortably" to "getting rich quick". This affects willingness to take disproportionate risks.



Source: MagnifyMoney online survey of 1,295 U.S. consumers (including 670 investors) from Feb. 15-21, 2022

CNBC

While social media has many benefits, it is rampant in financial manipulative content, which is hard to deal with due to its unique nature:



Dispersed & Fragmented

Largely Anonymous

Creates huge amounts of data

The rise of fake news, has exacerbated this phenomenon, continuing to prove that social media can have detrimental economic effects.

MARKETING

Eli Lilly issues rare apology as fake Twitter Blue account proclaims free insulin for all

By **Ben Adams** • Nov 11, 2022 09:20am

Eli Lilly | Twitter | Social Media | Elon Musk

But this is not new, and its happens every day. In fact, AI is only making it worse due to its ability to mass produce and distribute manipulative content using engines and bots.

MEME WAR: THE GAMESTOP SHORT SQUEEZE CAMPAIGN THAT GAMED THE FINANCIAL ALGORITHM

By Sandhya Jetty, Teresa Chen, Rehan Mirza

Home » Blog » Enforcement News: Twitter and The Pump and Dump Scheme

Enforcement News: Twitter And The Pump And Dump Scheme

Posted on: Oct 27 2021

By: Jeffrey M. Haber

SEC Charges Eight Social Media Influencers in $100 Million Stock Manipulation Scheme Promoted on Discord and Twitter

Ask Matt: Beware of stock-touting tweets

Matt Krantz USA TODAY

Published 7:20 p.m. ET Feb. 19, 2014 | **Updated 8:01 p.m. ET Feb. 19, 2014**

View Comments

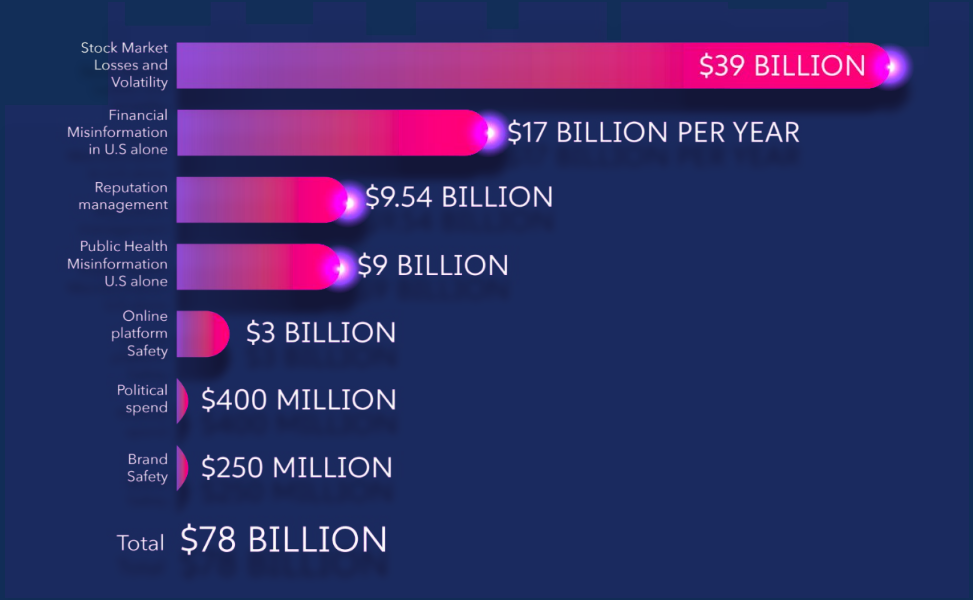
Key Points

- Celebrity investors take it to Twitter
- Investors might think following Twitter feeds is a way to make money
- Tweet are not financial advice

THIS IS A BIG PROBLEM

<u>In 2019 alone, this costed $39 billion!</u> The people getting hurt are the small retail investors, and small-cap companies who lack resources and information

50% of the costs of online misinformation are from the stock market



*Data from Cheq

The Social Media Manipulation Landscape

(According to the SEC)

PUMP & DUMP

Pumping up the share price of a company's stock by making false and misleading statements to create a buying frenzy, and then selling shares at the pumped up price.

SCALPING

Recommending a stock to drive up the share price and then selling shares of the stock at inflated prices to generate profits.

TOUTING

Promoting a stock without properly disclosing compensation received for promoting the stock.

BASHING

Competitors or bad actors spread lies or fake news about a company to lower its stock price and harm its ability to compete in the market.

The Regulation Exists, but regulators, companies and investors are missing the tools to recognize the manipulation, and even when they do, it's often too late.

it is unlawful to "employ any device, scheme, or artifice to defraud", "obtain money or property" by using material misstatements or omissions, or to "engage in any transaction, practice, or course of business which operates or would operate as a fraud or deceit upon the purchaser." ***- Securities Act, Section 17(a)***

It is unlawful to "use or employ, in connection with the purchase or sale of any security" a "manipulative or deceptive device or contrivance in contravention of such rules and regulations as the [SEC] may prescribe." **-15 U.S.C. § 78j(b).**

"It shall be unlawful for any person, directly or indirectly, by the use of any means or instrumentality of interstate commerce or of the mails, or of any facility of any national securities exchange— to affect a short sale (...), in connection with the purchase or sale of a security, **- Securities Act, Section 10(b)**

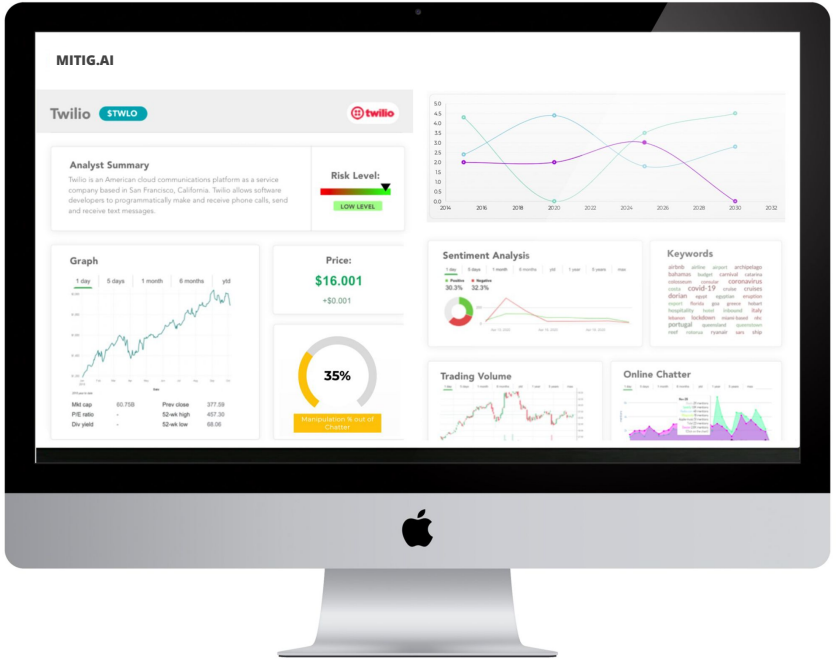
The current solutions do not combine multidisciplinary data, moreover they lack robustness in their ability to provide a real time offering for companies

WE BELIEVE AI CAN HELP

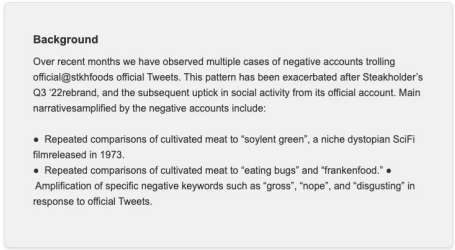
THE PRODUCT

MitigAI is a SAAS product that will serve publicly traded companies, hedge funds, and regulators in recognizing financial manipulation attempts on various internet and social media platforms.

Initial Visualization



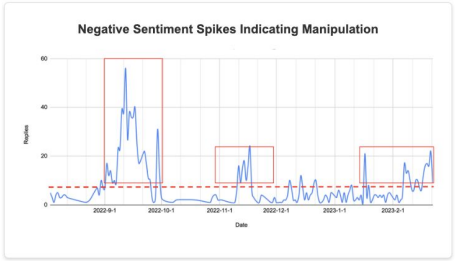
SAMPLE CLIENT REPORT
(IN PARTNERSHIP WITH ARX ADVISORY)

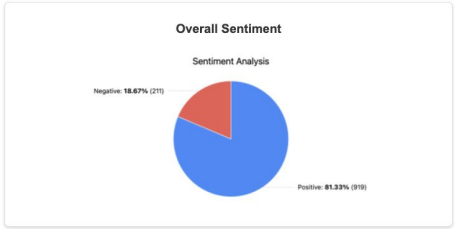


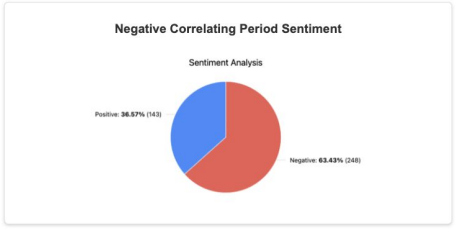
Background

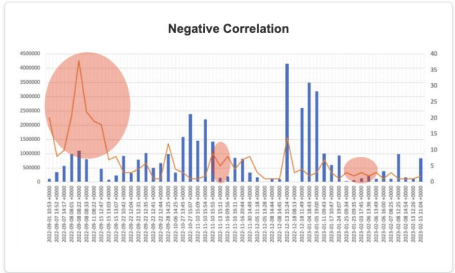
Over recent months we have observed multiple cases of negative accounts trolling official@stkhfoods official Tweets. This pattern has been exacerbated after Steakholder's Q3 '22rebrand, and the subsequent uptick in social activity from its official account. Main narrativesamplified by the negative accounts include:

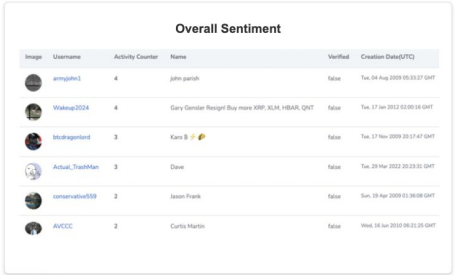
- Repeated comparisons of cultivated meat to "soylent green", a niche dystopian SciFi filmreleased in 1973.
- Repeated comparisons of cultivated meat to "eating bugs" and "frankenfood."
- Amplification of specific negative keywords such as "gross", "nope", and "disgusting" in response to official Tweets.





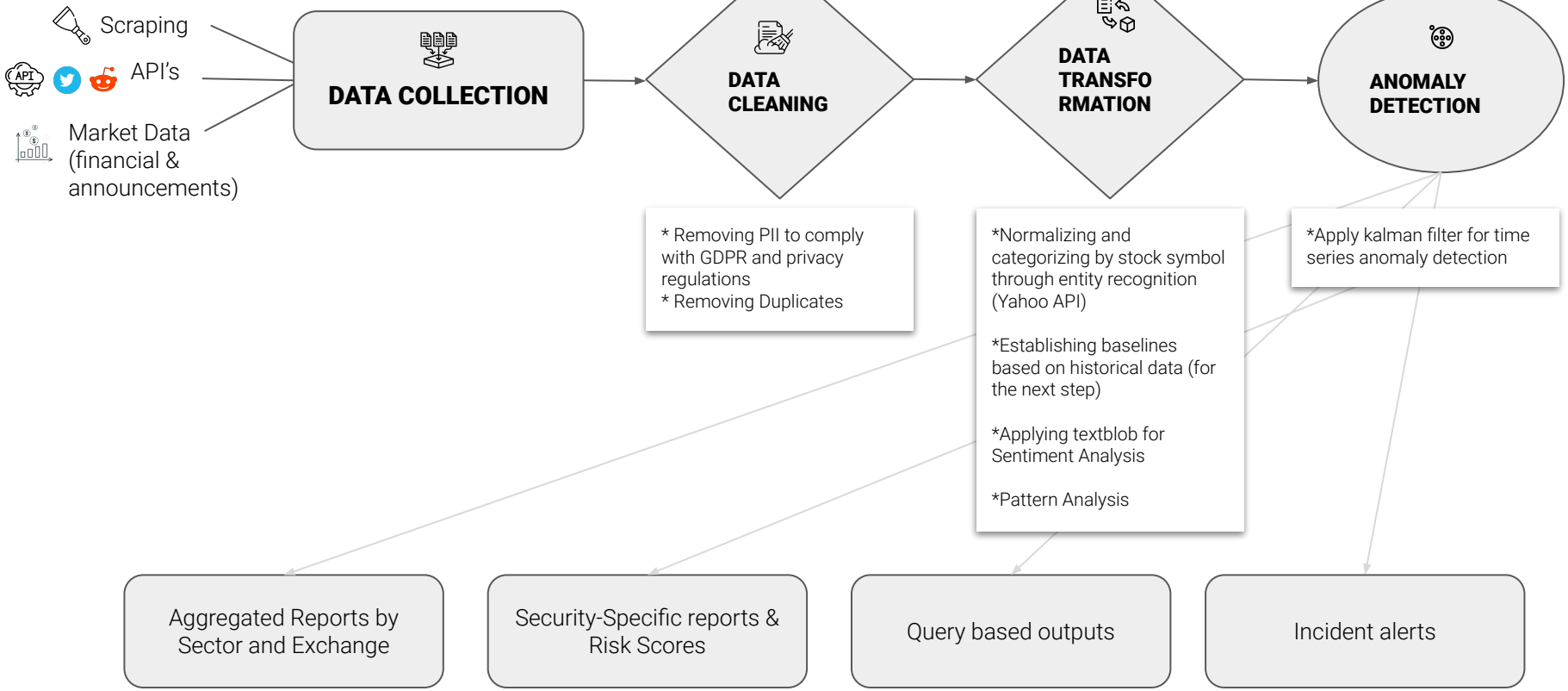






[View more Here]

MITIG.AI POC - CORE TECHNOLOGY



MITIG.AI'S OFFERING

TRADED COMPANIES	• Monitoring and alerting manipulation or threats that may face the company so they can respond real time
INVESTMENT FIRMS	• Aiding in investment due diligence by providing analysis and risk scores regarding manipulation
REGULATORS & LEGAL FIRMS	• Providing incident specific data to help with evidence collection and policy research
EXCHANGES	• Aggregated data reports about industry wide manipulation

MITIGAI White Paper

If you're interested in learning more about our technology, we invite you to read our white paper titled "using machine learning to detect stock manipulation, an overview of MITIGAI's technology". The document covers our technology stack, our scoring system and more.

CLICK HERE

LEGAL & ETHICAL CONCERNS

PRIVACY

- **Accessing public information from social media:** In order to build the product, we would need to access social media platforms which would result in access to users individual tweets. In order to ascertain the legality of such, we would need to look at each platforms terms of service. In practice, many (like Twitter) have dedicated API's for this, and other can be web scraped. (Ethics by design - removing PII from the outset)

- **The Legality of Scraping:** (HiQ v LinkedIn): Controversial, but recent a recent ruling from the USSC found that scraping personal information is legal if it was made public.

- **Complying with regulation such as GDPR** (no personal data for leads, purpose limitation, no decision based solely on machine activity)

MISUSE OF THE DATA

- There is a risk that the data collected and analyzed through a platform like this **could be used for nefarious purposes, such improving manipulation attempts,** targeting susceptible stocks that are ripe for manipulation, and more.
- This is a serious concern as with any technology, it must be ensured that it is doing more good the bad.

BIAS & FALSE POSITIVES

- **Certain types of stocks may be statistically more likely to be manipulated** - while this is valuable data, is may also create false positives.
- **Certain types of activity may seem fraudulent even if they are not.** This could lead to companies and authorities investing time and efforts in investing fake threats. *(For example: Metrics associated with a "fake user" which implies that the activity may be fraudulent, is a lack of posting history, or irregular posting habits. However, this trend is also associated with people aged 50+ so they could be disproportionately recognized as fraudsters potentially leading to them being banned from platforms.)*
- ***If we give false assessments we could become the manipulator!***

EMERGING AI REGULATIONS

- **EU AI Act** (Securities/Finance is a highly regulated high risk industry): documentation, advanced monitoring, and more
- White House BluePrint
- OECD AI Ethics Code

FREEDOM OF SPEECH

- We don't want to **remove the incentive (chilling effect)** for people to share their thoughts and financial advice.
- Harming people's privacy and giving them the impression that what they say on social media is constantly monitored

INEQUITY

Growing the divide between retails and institutions: This could be used for trend based algo-trading which would further empower large institutions, while harming the financial means of smaller players and individuals

VISIT OUR AI ETHICS & TRUST CENTER TO SEE HOW WE'RE DEALING WITH THESE CONCERNS

CLICK HERE

THANKS

THANKS TO OUR PARTNERS

ARX

Steakholder FOODS

FUTURE MARKETS RESEARCH TANK