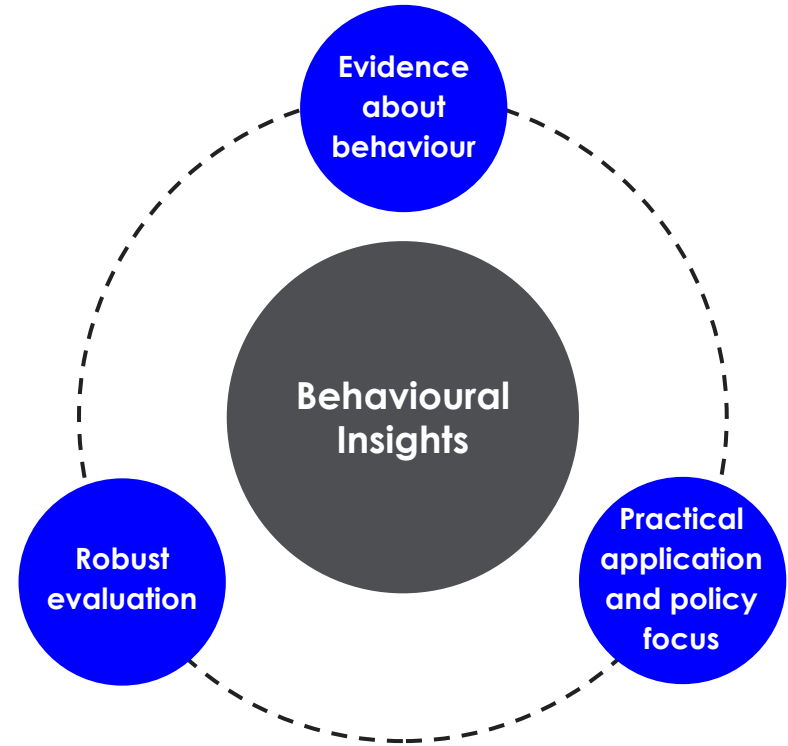


# Behavioural Science & DIY Investors

Capital Markets Adjudicators Tribunal  
November 2024

# Behavioural insights approach

The behavioural insights approach uses evidence of the conscious and nonconscious drivers of human behaviour to address practical issues.



# About BIT

- Founded in UK Cabinet Office in 2010, coined the term “behavioural insights”
- Now an independent consultancy owned by Nesta, a social innovation charity
- About 220 staff in Canada, UK, US, France, Singapore, Australia, and Latin America
- Over 1000 applied behavioural science projects completed with government
- In Canada, we work extensively with financial services regulators (e.g., OSC, FSRA, FCAC, CIRO), as well as governments, nonprofits, and private sector firms



Financial Services Regulatory  
Authority of Ontario



ONTARIO  
SECURITIES  
COMMISSION

# **Gamification of OEO Platforms**

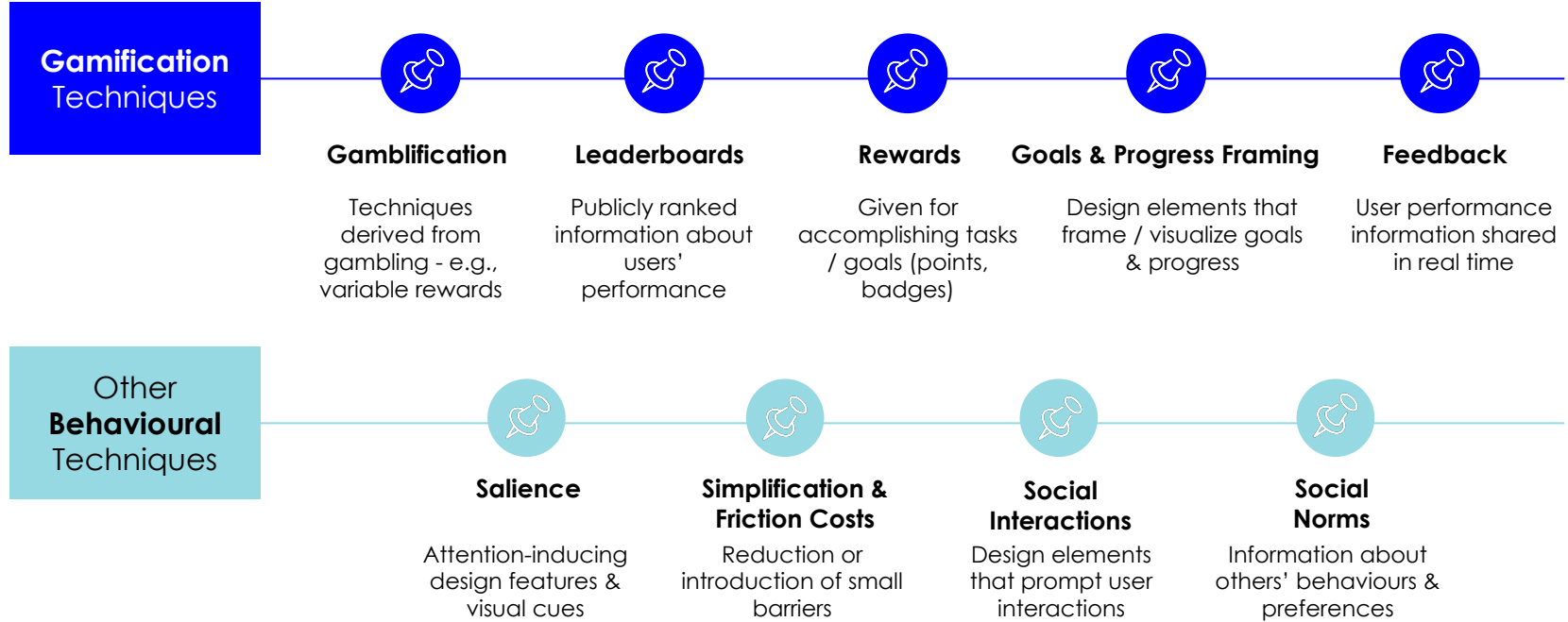
?

**How does the “gamification” of  
OEO platforms affect investor  
outcomes?**

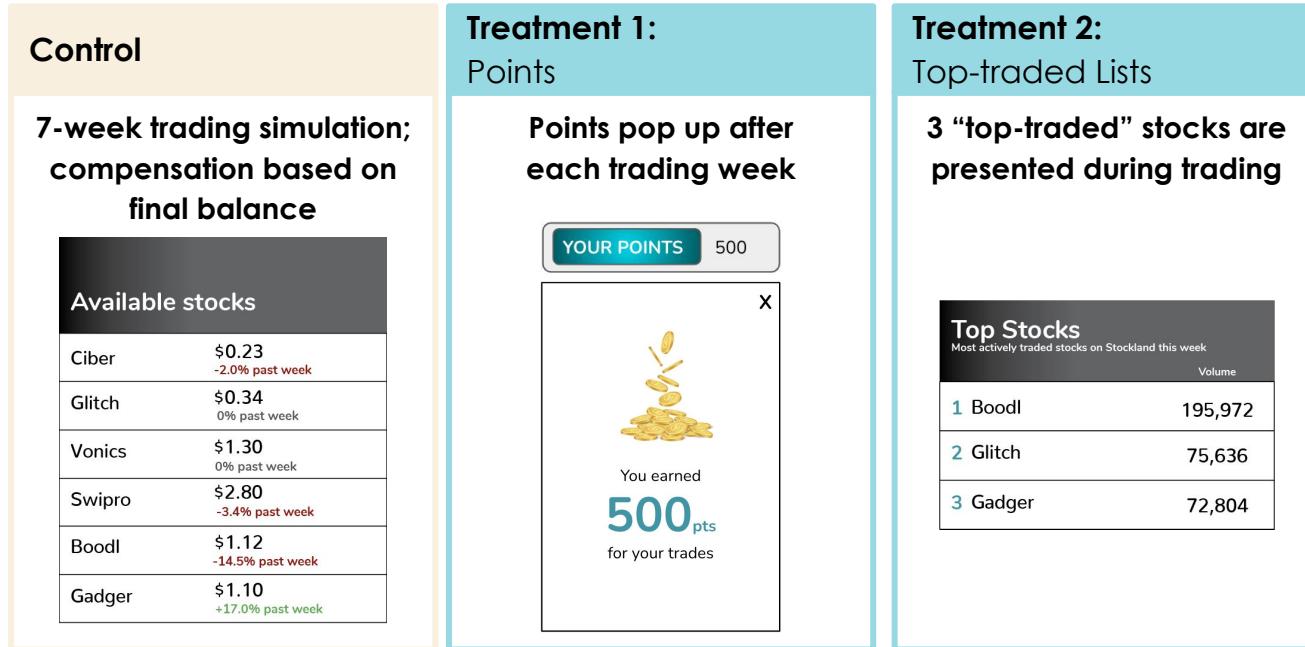
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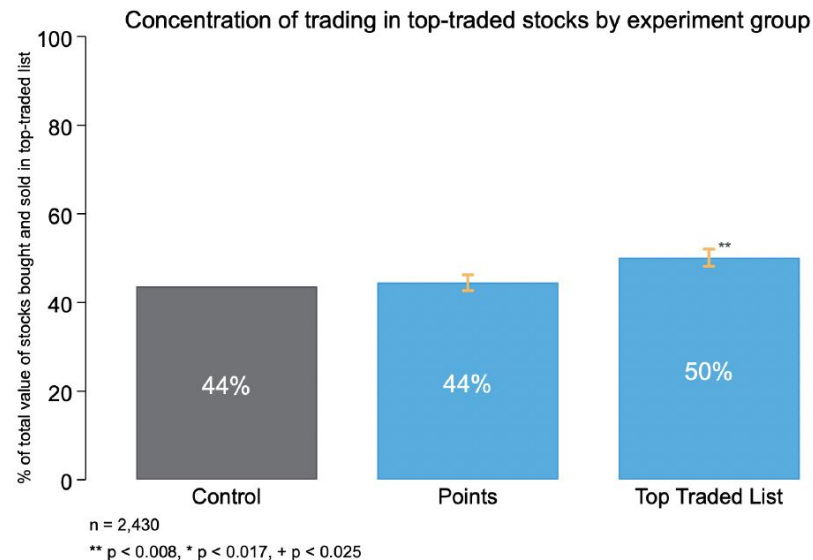
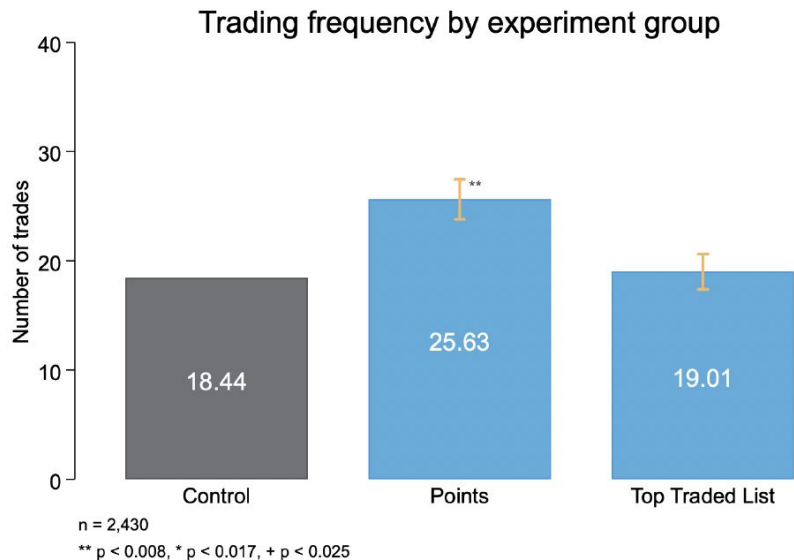
# Defining gamification: a taxonomy



# We tested two techniques in an RCT with 2430 Canadians



# Virtually worthless "points" massively increased trading



The points group made **39% more** trades

Top-traded list stocks **bought and sold more**



# In a separate trial, we tested three “social” techniques

**Control:** No additional features. The same as the first experiment.

## Treatment 1: Social Feed

### Social Feed

See what other Stockland users are talking about this week



**Ethan Z.**  
1 hr

The recent \$GADGER surge has been turning heads ... I encourage everyone to buy shares NOW before it's too late 🚀🚀 #ALLIN

♥ 785 💬 16



**Alex R.**  
1 hr

\$GLITCH is looking like a 💎 hidden gem 💎. Technical analysis signals a bullish trend, Now is the perfect time to buy.

♥ 553 💬 16



**Taylor T.**  
2 hr

📺 Screen time = trading time 🚀! Looking for the next big thing 🚀 #DayTradingHustle

♥ 368 💬 11

## Treatment 2: Social Norms Statistics

### Market Movers

See what other Stockland users are trading this week

#### Ciber

👤 254 Bought | 👤 - Sold

#### Glitch

👤 1636 Bought | 👤 - Sold

#### Vonics

👤 1083 Bought | 👤 - Sold

#### Swipro

👤 290 Bought | 👤 - Sold

#### Boodl

👤 222 Bought | 👤 - Sold

#### Gadger

👤 1015 Bought | 👤 - Sold

## Treatment 3: Copy Trading

### Copy Trader

Invest like our top performing traders



**@DayTraderMax**  
+7.42% since last week

I'm Max! My approach to investing is to beat the market by getting in and out of stocks fast. Last month, I made a 15% total profit. Follow me to passively invest and we can grow our portfolios together!

#### MY TRADES

| Stock  | Trade | Value   |
|--------|-------|---------|
| Ciber  |       | -       |
| Glitch | BUY   | \$1,500 |
| Vonics | BUY   | \$6,000 |
| Swipro |       | -       |
| Boodl  |       | -       |
| Gadger | BUY   | \$2,500 |

## Treatment 4: Leaderboard

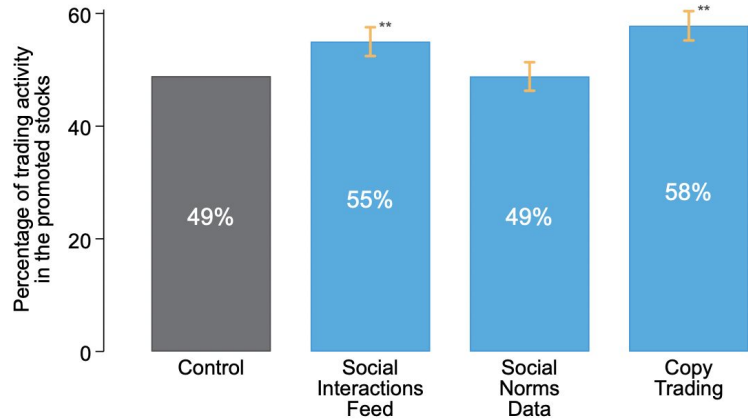
### Leaderboard

How does your return for the week compare to other Stockland traders?

|    |                  |        |
|----|------------------|--------|
| 1  | <b>Riley S.</b>  | 21.31% |
| 2  | <b>Quinn B.</b>  | 19.70% |
| 3  | <b>Noor R.</b>   | 18.00% |
| 4  | <b>Dakota S.</b> | 17.33% |
| 5  | <b>Ethan Z.</b>  | 17.30% |
| 75 | <b>You</b>       | 0.10%  |

# Copy trading and social interactions concentrated activity in promoted securities

Percentage of trading activity in the promoted stocks by experiment group

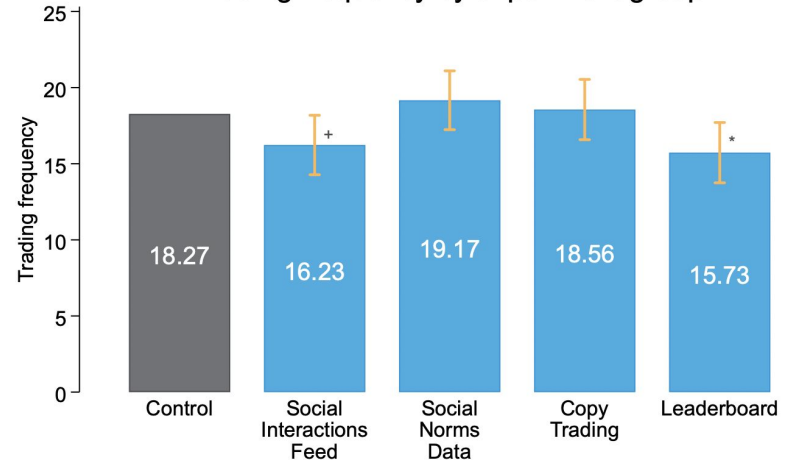


n = 2,830

\*\* p < 0.01, \* p < 0.0167, + p < 0.5

Primary analysis, controlling for age, gender, objective investing knowledge, and investor status

Trading frequency by experiment group



n = 3,509

\*\* p < 0.01, \* p < 0.0125, + p < 0.5

Secondary analysis, controlling for age, gender, objective investing knowledge, and investor status

**More trades** in promoted stocks for 2 groups:  
Social Feed (12%) & Copy Trading (18%)

Leaderboard group made **2.5 fewer trades**  
(11% fewer) than the control group.

# AI Advice

?

**How does the source of advice  
(AI, human, or blended) and its  
soundness affect adherence to  
that advice?**

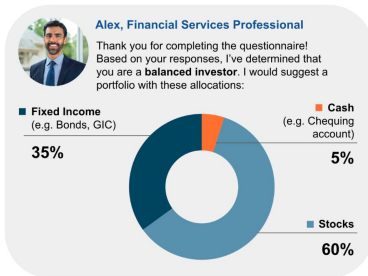
?

# We ran a simulated, simplified asset allocation trial

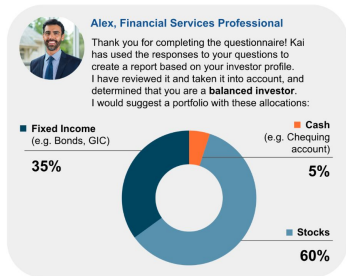
## Control:

Participants did not receive suggestions when allocating \$20,000 across stocks, fixed income, and cash.

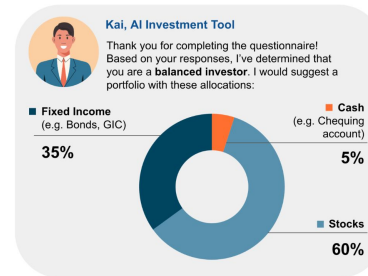
## Treatment A: Sound Human Suggestion



## Treatment B: Sound Blended Suggestion



## Treatment C: Sound AI Suggestion

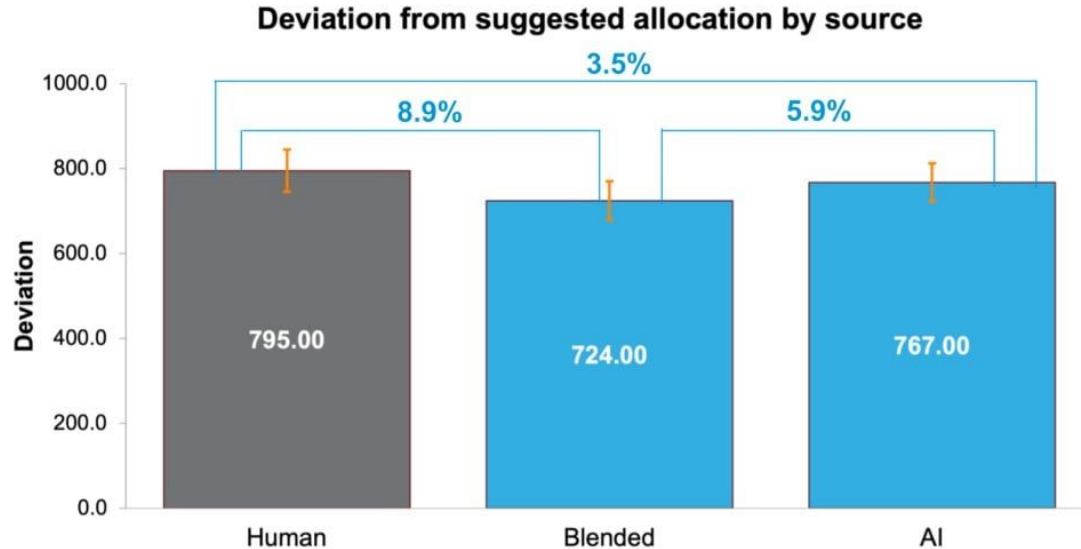


## Treatment D: Unsound Human Suggestion

## Treatment E: Unsound Blended Suggestion

## Treatment F: Unsound AI Suggestion

# Adherence was highest in the “blended” condition



n = 4,834 | \* $p < .0125$

Blended groups followed the suggestion **most closely**. This was **not** statistically significant.

Sound groups deviated **14.5% less** than the unsound group.

# AI and Scams

?

**Are AI-enhanced scams more harmful than conventional scams?**

**Can mitigations reduce the amount invested in AI-enabled scams?**

?

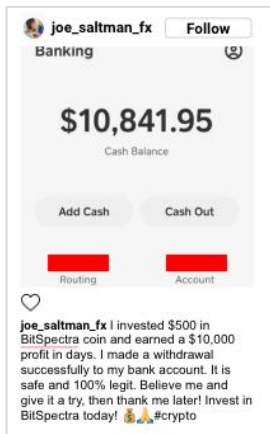


# We tested two mitigation strategies against conventional and AI-enabled scams

## Control 1:

Conventional scam

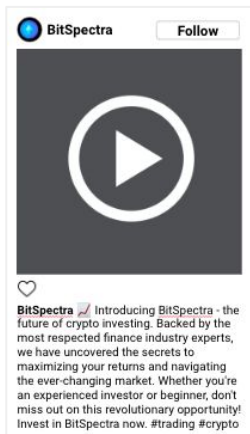
3 legitimate posts +  
3 conventional scams



## Control 2:

AI-enabled scam

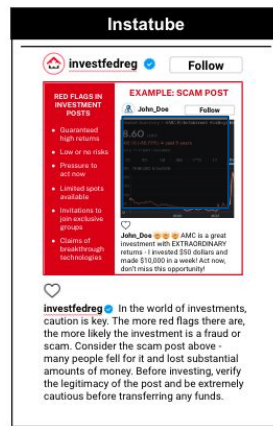
3 legitimate posts +  
3 AI-enabled scams



## Treatment 1:

Inoculation mitigation

Control 2 +  
An inoculation post



## Treatment 2:

Web-browser Mitigation

Control 2 +  
A simulated browser plugin

ScamFinder Alert

Scam Risk: **40%**

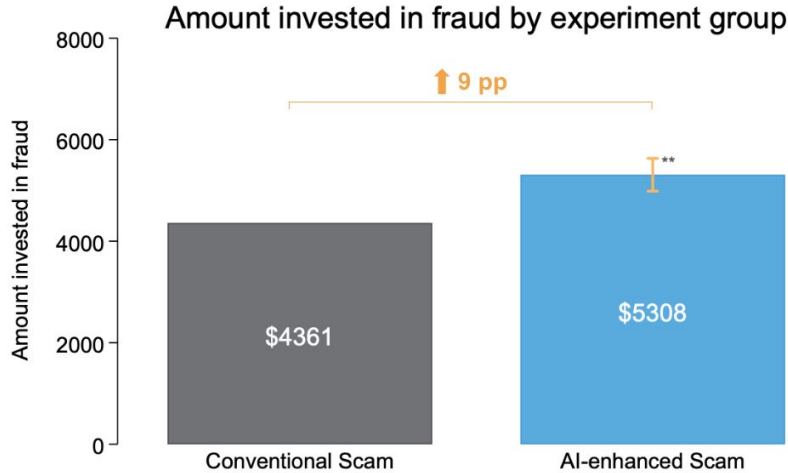
Claims of returns from  
cryptocurrency investments

ScamFinder Alert

Scam Risk: **87%**

Claims of high returns, limited  
availability, & offers to join select  
groups

# AI tools enhance scams but their harm can be mitigated

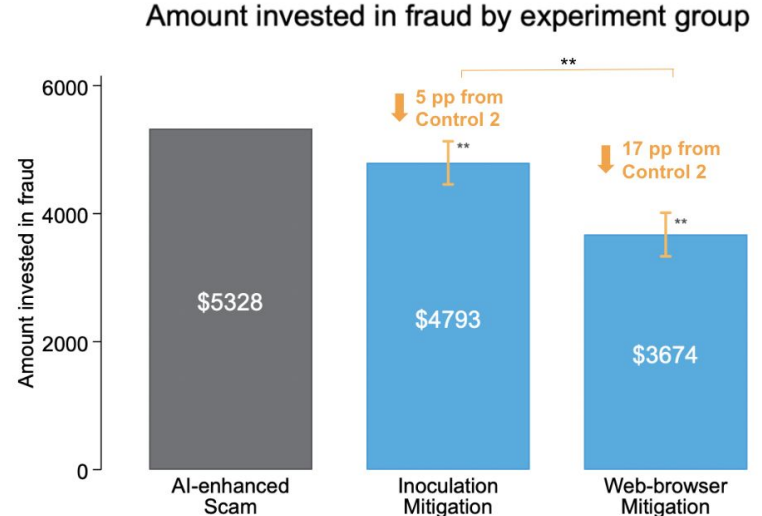


n = 1,010

\*\* p < 0.01, \* p < 0.05, + p < 0.1

Secondary analysis, controlling for age, gender, objective investing knowledge and investor status

Enhancing scams with generative AI  
**increased investment by 9 p.p.**



n = 1,530

\*\* p < 0.01, \* p < 0.025, + p < 0.05

Primary analysis, controlling for age, gender, objective investing knowledge and investor status

Both mitigations reduced the amount  
invested in AI scams.



# Thank you!

**Get in touch:**

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