A field experiment to mitigate the harm of inaccurate information online

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Introduction

Objective: Develop cost-effective, sustainable, scalable interventions to combat misinformation.

Research Questions

- 1. What are effective interventions to achieve such a goal?
- 2. What are the effects of such interventions on behavioral and attitudinal outcomes?

Method

We piloted a two-arm, three-wave RCT on Twitter/X (treatment period: 1 month).



<u>Arm 1. Muting low-quality sources</u>

 Target information environments to increase costs of getting low-quality information

<u>Arm 2. Media literacy tips</u>

• Target individual discernment to reduce decision costs of assessing information quality

Outcome variables

- Engagements w/ low-quality sources (likes, retweets, etc.)
- Sharing intention and accuracy judgement of True / False headlines (drawn from Fazio et al., 2024)
- Trust in different info sources, etc.

References

Fazio, L., Rand, D. G., Lewandowsky, S., Susmann, M., Berinsky, A. J., Guess, A. M., ... Swire-Thompson, B. (2024, June 23). Combating misinformation: A megastudy of nine interventions designed to reduce the sharing of and belief in false and misleading headlines.

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Encouraging Muting and Giving Media Literacy Tips Decreases Engagement with Low-quality News Sources on Twitter / X



For more information, please contact dowonkim@umd.edu or scan the QR code.

Pilot study randomized whether Twitter / X users (*n*=91) were offered incentives to either mute low-quality sources or receive media literacy tips. The inset shows only participants with 1+ pre-treatment likes/(re)tweets/quotes.

Media Literacy

• Error bars are 95% bootstrapped CIs around the mean difference in engagement rates.

Improve our targeted recruitment (i.e., people with low-quality information diets; consumers of untrustworthy news sources and misinformation superspreaders).

Implications

• If muting proves more effective: Policy focus should be on platform-level interventions (e.g., banning or down-ranking low-quality accounts).

• If media literacy tips are more effective: Emphasis should be on user education programs for digital news consumption.

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Results (Pilot Study)

Manipulation Check: Muting will create sustained changes to information exposure (i.e. reduce post-treatment exposure to muted low-quality sources)

Control: mean = 7.5; sd = 15; median = 1; IQR = 8.5 Muting: mean = 0: sd = 0: median = 0: IQR = 0



P = 3e-09 (Kolmogorov–Smirnov test)



Pre-vs. post-treatment differences in engagements with low-quality content (percentage points)

• X-axis: changes in the proportion of engagements with low-quality sources relative to total engagements.

- 0 indicates no change in engagement rate before and after treatment.
- Positive values indicate a decrease in engagement rate
- post-treatment. E.g., 20 = proportion of engagements with low-quality accounts decreased by 20 percentage points after treatment.

Going forward

