



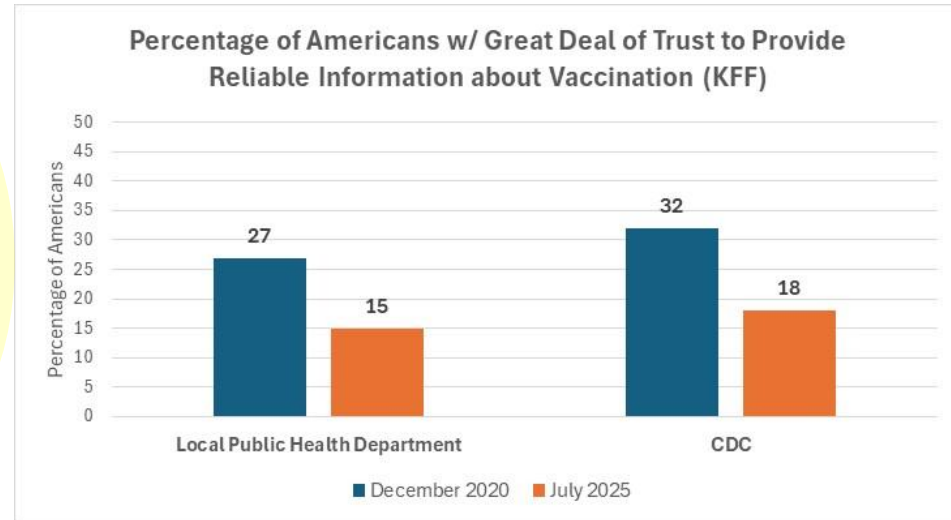
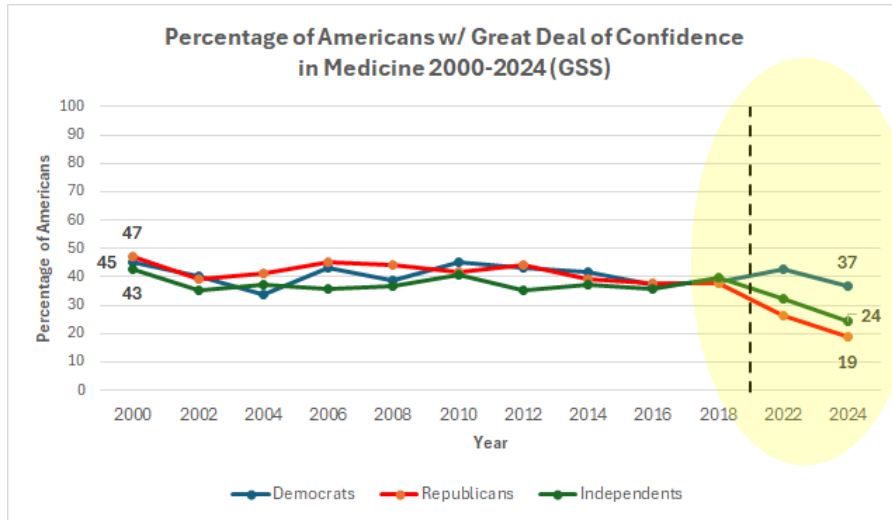
Pandemic Legacy: How the COVID Online Ecosystem of 2020–2021 Shaped Enduring Distrust in Public Health

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Northwestern

How did we get here?



Polarization & Distrust on Twitter (2020)

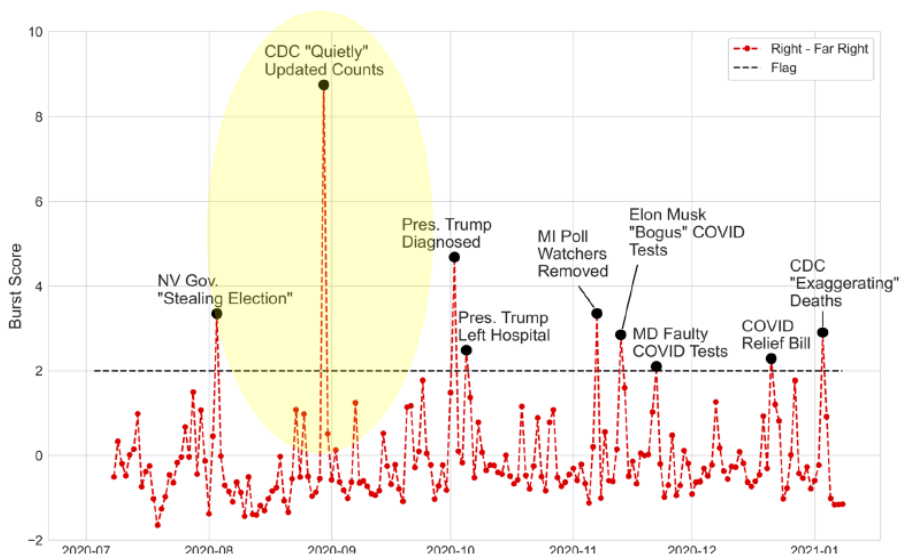


Figure 6. *Top.* Average inter-cluster similarity between the Left, Right, and Far-Right clusters for each day between July 1, 2020 and January 6, 2021. *Bottom.* Inter-cluster burst score [Equation (1)] between the Right and Far Right. Annotated days represent days in which the burst score is greater than or equal to 2. The first seven days of the observation period are omitted to establish baseline.

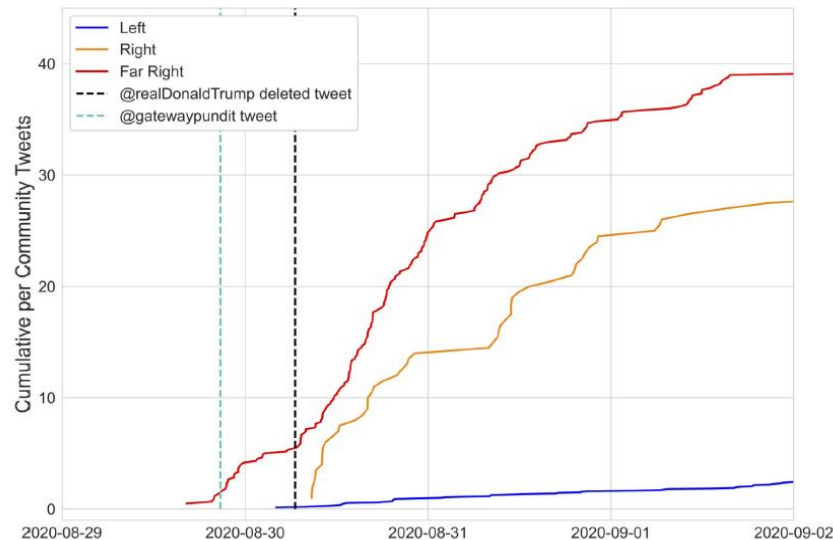


Figure 7. Cumulative per community tweet curves by cluster for tweets discussing the CDC altering its reported COVID-19 death statistics in August of 2020. The cyan dotted line denotes the time of a GatewayPundit tweet that sparked an amplification event in the Far Right and the black dotted line denotes the time of a deleted Donald Trump retweet of a QAnon account promoting the conspiracy.

Cross-Platform Diffusion of Distrust (2020)

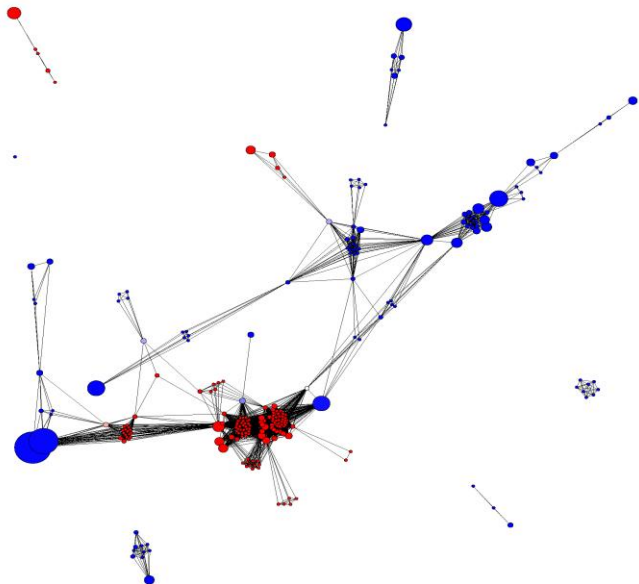
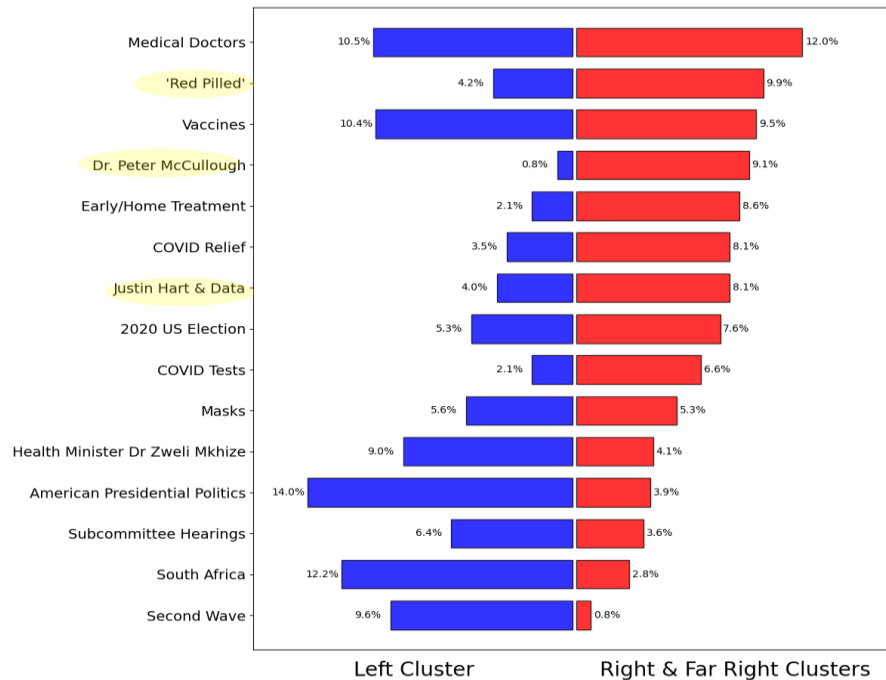
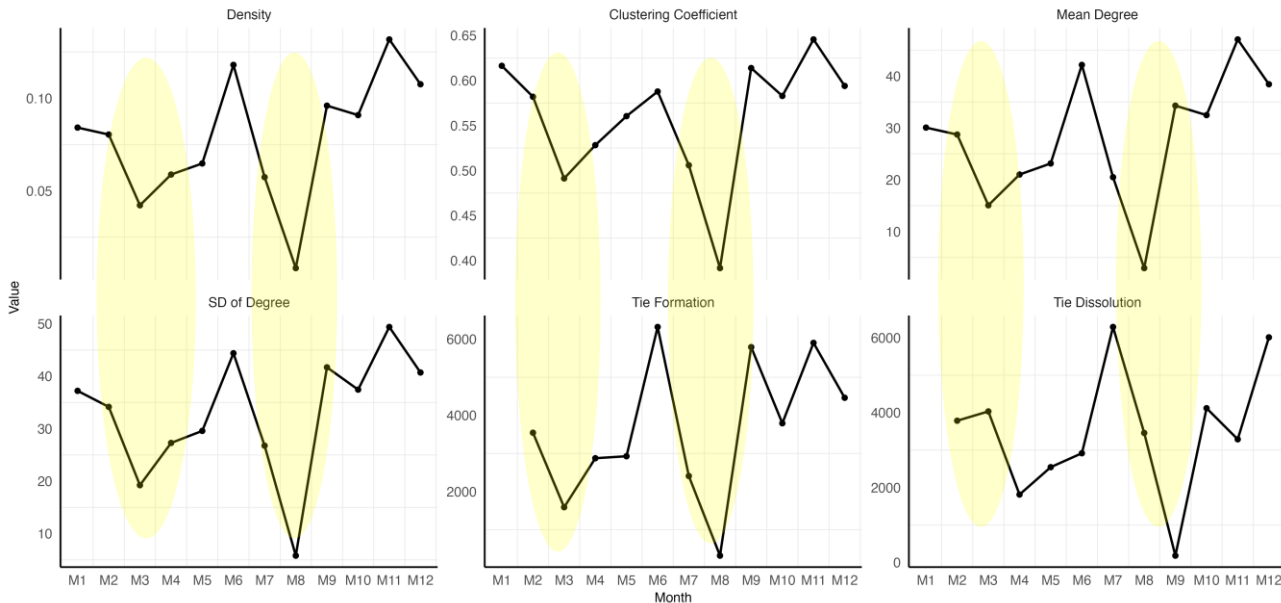


Figure 4 YouTube channel co-linkage network: Nodes correspond to YouTube channels, and the strength of the connections between them (edge weights) reflect the extent to which sentinel communities linking to videos in channel A also link to videos in channel B. Size of the nodes reflects total number of links to the channel from the sentinel Twitter accounts, and color corresponds to proportion of links from Left (blue) versus Right/Far Right (red) sentinel clusters.



COVID News Polarization (2021)

News Polarization Network — Key Metrics Over Time (Sentiment-weighted)



Metric is topic-level semantic similarity across all outlets, weighted by net sentiment.

High polarization

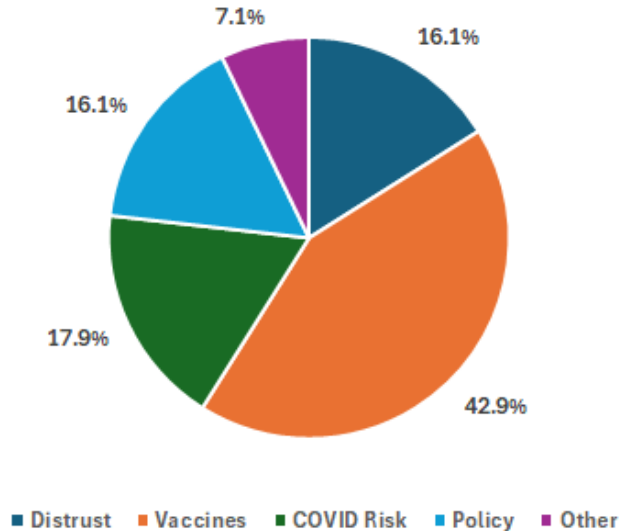
when vaccination rollout, mandates, and the FDA's Pfizer approval are most salient

Low polarization

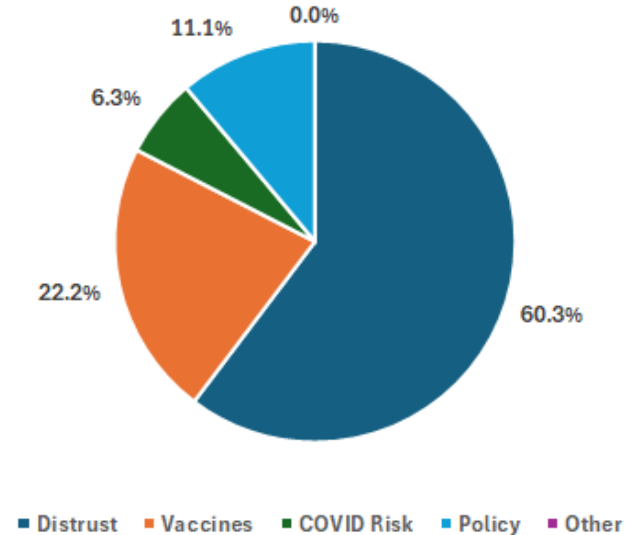
during reopening and again during the Omicron wave

Semantic Polarization: Vaccination vs. Distrust

Topic of Most Viral True COVID News Stories
Dec 2020-June 2021 (N=56)



Topic of Most Viral False COVID News Stories
Dec 2020-June 2021 (N=63)



Downstream Consequences of Distrust

Misinformation Endorsement is associated with lower trust, but **NOT** vaccine hesitancy

Standardized Fixed-Effects Estimates of Information Endorsement on Public Health Trust and Vaccine Hesitancy (Dec 2020 – June 2021)

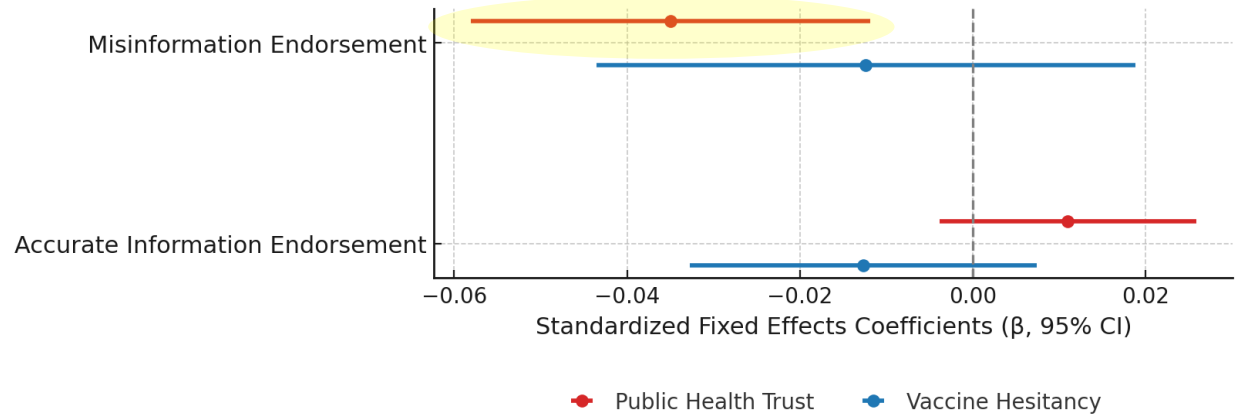
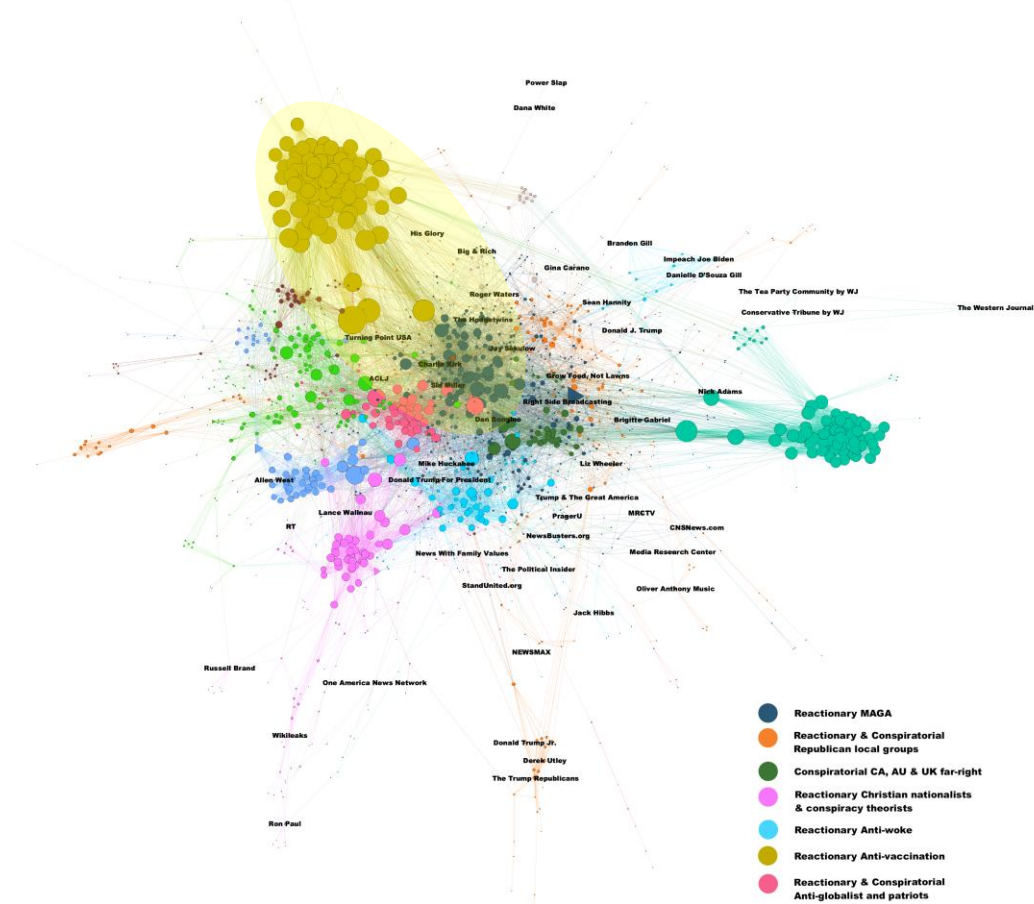


Figure displays standardized fixed-effects coefficients ($\beta \pm 95\%$ CI) from panel regression models estimating the within-individual effects of endorsing COVID-19 misinformation and accurate information on public health trust and vaccine hesitancy. Red points represent effects on Public Health Trust, while blue points represent effects on Vaccine Hesitancy. Negative coefficients indicate decreases in trust or increases in hesitancy associated with greater endorsement. Data: NU-OSU COVID Longitudinal Survey Panel, December 2020 – June 2021 (N = 1,200).

Seeds of MAHA: Deplatforming & Cross-platform Diffusion (2022-2023)

Anti-Vax & COVID Conspiracy FB Groups connected to **MAGA FB** through link sharing of Rumble videos.



So how we got here...

01

**COVID-19
Exacerbated a
Polarized
Information
System**

02

**Semantic
Polarization &
Amplification**

03

**Erosion of Trust
and Fusion w/
MAGA**



Thank you!

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