



Social Media Junk News on the Epidemic Status of Coronavirus

Coronavirus Misinformation Weekly Briefing 13-07-2020

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SUMMARY

Given the evolving nature of the coronavirus pandemic—and public understanding of the crisis—we provide a weekly briefing about the spread of coronavirus misinformation across multiple social media platforms. For the seven days prior to 09-07-2020 we find:

- The social media distribution network of all coronavirus articles from the top fifteen mainstream news outlets reached over three billion social media users this week, achieving much greater distribution than state-backed and junk health news sources. But the average article from state-backed sources reached over 8,000 users, while the average article from mainstream sources reached slightly below 4,500 users and the average junk health article reached just below 3,500 users.
- Similarly, all content from all mainstream sources gets the largest amount of total user engagement. But on a per article basis, both state-backed news and junk health news receive between 75 and 100 engagements, and average articles from mainstream sources get just over 30 engagements.
- In total, 41% of the engagement with non-mainstream information last week was with state-backed content. Furthermore, 37% of engagements with state-backed media were engagements with Chinese content, whereas 60% was with Russian content.
- Thematically, key junk health news themes were (a) misleading reports of the epidemic status of coronavirus in the US and (b) recent increases in violence in Chicago.

INTRODUCTION

Using an actively curated list of major sources of junk health news and state-backed sources, we track the spread of misleading, polarizing, and inflammatory coronavirus content on social media. Sources from state-backed media include information operations and editorially controlled national media organizations. Other domestically and independently-produced sources also act as politically motivated sources of misinformation.[1] All such media sources play a major role in the online information ecosystem and generate engagement from millions of social media users. We define junk health news and information sources by evaluating whether their content is extremist, sensationalist, conspiratorial, or commentary masked as news. See our [Methodology FAQ](#) for further details.

We currently track 142 junk health news websites and 22 state-backed media outlets that are actively publishing misleading information about the coronavirus pandemic—164 in total. From these we select the top fifteen most engaged state-backed and junk news sites respectively for comparison. We examine how successful they are in terms of distributing their content on social media and generating engagement and compare this to several major sources of credible health news and information. Our data comes from the APIs of Facebook, Instagram, Reddit, Twitter, and YouTube. Facebook and Instagram are accessed through the CrowdTangle platform. Additional analytics allow us to benchmark and track how users spread and engage with misleading information.

DISTRIBUTION & ENGAGEMENT

Understanding the flow and impact of coronavirus misinformation requires measuring how users distribute and engage with that content over social media. We analyze such patterns for the period from 25th of June to 1st of July and offer comparisons between the trends for junk health news and state-backed sources, and the trends for fifteen prominent English-language sources of credible news and information.

The “social distribution network” of an outlet is the sum of follower counts of the Facebook groups and pages, subreddits, Instagram and Twitter accounts that have shared at least one of the sources’ articles over the previous week. On YouTube, this distribution network is counted as a channel’s number of subscribers. This provides an impression of the capacity that sources have for distributing its content. It is important to emphasize that not all of these followers may have been reached by this content—only the social media firms themselves could confirm this. We use “engagement” to refer to the sum of actions that users of social media took in response to content shared by the distribution network. On Facebook, users may comment on content, share it, and react by signaling like, love, laughter, anger, sadness, or amazement. On Twitter, users can retweet, comment, and signal their favorite tweets by clicking on the heart button. On Reddit, this is the sum of comments, cross posts, scores, and awards on posts containing the links to articles from our watch list. On Instagram, this is the sum of likes and comments. On YouTube, this is the video view count as well as comment and like reactions. Our overall engagement

measure is the sum of all these actions. Again, we are not able to distinguish between genuine and inauthentic accounts or acts of engagement.

We can offer some broad observations about how English-language social media users interact with content from junk news health sources and state-backed agencies. Overall, 41% of the engagement with non-mainstream sources we observed this week was from state-backed sources. Further, 37% of engagements with state-backed media were engagements with Chinese content, whereas 60% was with Russian content. Finally, 2% was with Turkish content.

Figures 1 and 2 reveal the distributional reach for the published content from mainstream, junk health news, and state-backed sources, both in total for the week and as an average per article. This week, again the top fifteen mainstream sources achieved over triple the total distribution of state-backed and junk health news sources, respectively. However, the average article from state-backed sources still has a larger distribution network, this week reaching a potential audience of over 8,000 users, whereas average mainstream new articles reach slightly below 4,500 users. Junk news articles reach an average audience of just below 3,500.

Figures 3 and 4 reveal the levels of engagement that sources receive for their articles. Both junk health news and state-backed news achieved low total engagement of 2.5 million and 1.7 million respectively. By contrast, mainstream news sources achieved over 15 million engagements. Junk health news has reached over 6 million total engagements in previous weeks.[2] On average, state-backed media generated the most engagement this week, reaching 93 engagements per article, whereas junk health news achieved an average of 83 engagements per article.

Figures 1 to 4 now contrast the top fifteen sites from each category, instead of the previous selection of five mainstream news sources. See our [Methodology FAQ](#) for further details. This week, we are able to provide a view of engagement trends over the last four weeks. Figure 5 displays the engagement trends for the last two weeks since the shift to comparison between top 15 sites in each category was made. Mainstream news sources typically achieved over 1 million engagements on most days, reaching above 7 million on some. Junk health news and state-backed media seldom reach that threshold. On a per-article average, however, mainstream news sources struggle to match the engagement generated by junk health news and state-backed outlets.

KEY NARRATIVES

We also conduct a thematic review of articles published by both these junk health news and state-backed sources. Previously, we found that state-backed and junk health news sources targeting English speakers generally politicize health news and information by criticizing democracies as corrupt and incompetent.[1] We have also found that Russian outlets, targeting

Figure 1: Total Distribution Network, All Articles (Billions)

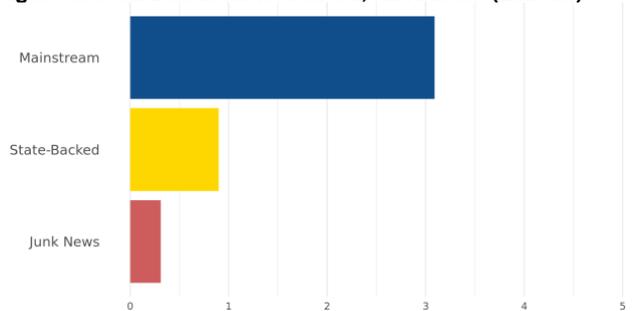


Figure 2: Distribution Networks, Average per Article

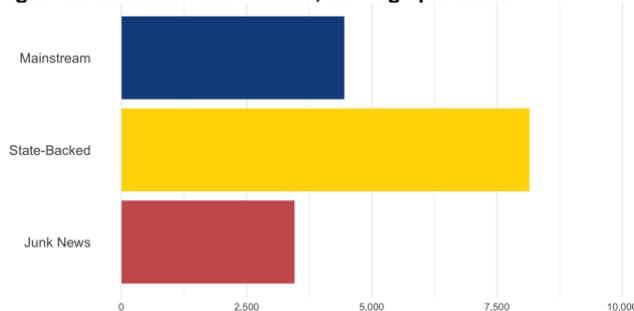


Figure 3: Total User Engagement, All Articles (Millions)

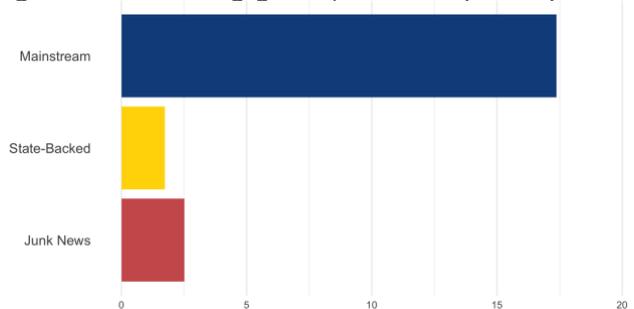


Figure 4: User Engagement, Average per Article

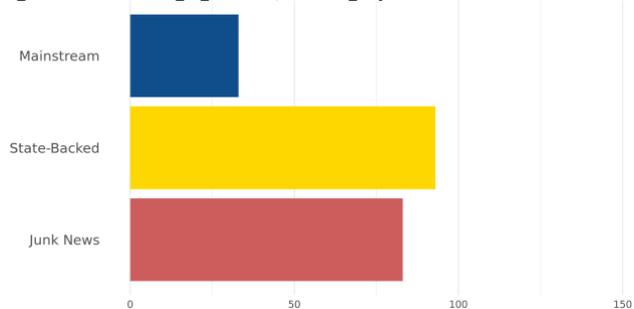
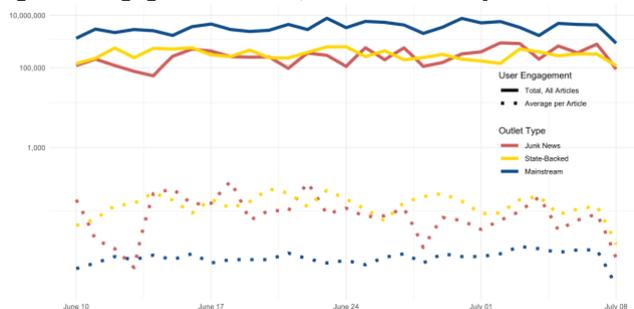


Figure 5: Engagement Trends, for the last 28 days



Source: Based on authors' calculations using data collected 02/07/2020-09/07/2020.

Note: Distribution refers to the sum of the subscriber count of YouTube channels and follower count of Twitter and Instagram accounts, subreddits, and Facebook groups/pages sharing content. Engagement refers to the sum of all reaction types on Facebook, Instagram, Reddit, Twitter, and YouTube.

French and German speakers, have consistently emphasized the flaws of Western democratic institutions, and Turkish outlets, targeting Spanish speakers, have promoted their global leadership in battling the pandemic.[3]

Last week, the key junk health news themes were (a) implicit criticism of the Black Lives Matter movement, (b) continuing narratives that coronavirus is not as dangerous as portrayed, and (c) fueling distrust in public health experts. This week, the key junk health news themes were (a) misleading reports of the epidemic status of coronavirus in the US and (b) recent increases in violence in Chicago.

The first theme concerned the Center for Disease Control's (CDC) weekly statement on the 3rd of July that the mortality rate had decreased from the previous week, to a point near dropping below that of the "epidemic" classification.[4] A *Daily Wire* article on this topic gathered over 91,000 engagements, framing this in terms of an admission from the CDC that the virus is not as severe as has been suggested.[5] However, within the first paragraphs of the *Daily Wire* article the CDC also makes it clear that mortality rates are likely to rise when death certificates are counted. An article from *The Blaze* with over 49,000 engagements also cited the CDC's statement on a decrease in the mortality rate, claiming that it was "pretty telling" that the CDC had issued this update.[6] The article said that this was good news in view of "the media has been stoking panic for weeks". Notably, Director of the National Institute of Allergy and Infectious Diseases, Dr. Anthony Fauci, has warned against articles that present a "false narrative" about falling mortality rates.[7]

REFERENCES

- [1] J. Bright *et al.*, "Coronavirus Coverage by State-Backed English-Language News Sources," Project on Computational Propaganda, Oxford, UK, Data Memo 2020.2, 2020. [Online]. Available: <https://comprop.oii.ox.ac.uk/research/state-media-coronavirus/>.
- [2] H. Au, J. Bright, and Howard, Philip N., "Social Media Misinformation and Lockdown Measures in Democracies," Apr. 2020, [Online]. Available: <https://comprop.oii.ox.ac.uk/wp-content/uploads/sites/93/2020/04/ComProp-Coronavirus-Misinformation-Weekly-Briefing-4-27-2020.pdf>.
- [3] K. Rebello *et al.*, "Covid-19 News and Information from State-Backed Outlets Targeting French, German and Spanish-Speaking Social Media Users," Project on Computational Propaganda, Oxford, UK, Data Memo 2020.4, 2020. [Online]. Available: <https://comprop.oii.ox.ac.uk/research/covid19-french-german-spanish/>.
- [4] CDC, "COVIDView, Key Updates for Week 26," *Centers for Disease Control and Prevention*, Jul. 03, 2020. <https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html> (accessed Jul. 09, 2020).
- [5] H. Berrien, "Amid Percentage Of Deaths Having Declined, CDC Admits Coronavirus On Verge Of Non-Epidemic Status," *The Daily Wire*, Jul. 07, 2020.
- [6] C. Enloe, "CDC might stop calling COVID an 'epidemic' because of major drop in mortality rate," *TheBlaze*, Jul. 07, 2020.
- [7] ABC News, *Video: News headlines today: July 8, 2020*. 2020.
- [8] E. Zanotti, "Chicago Mayor Lori Lightfoot Blames Guns, Coronavirus For City's Spike In Violence | The Daily Wire," Jul. 05, 2020.
- [9] N. MacFarquhar and R. Chiarito, "Chicago Gun Violence Spikes and Increasingly Finds the Youngest Victims," *The New York Times*, Jul. 05, 2020.
- [10] A. B. C. News, "'No question' COVID-19 a factor in recent violence in Chicago, says Mayor Lori Lightfoot," *ABC News*. <https://abcnews.go.com/Politics/question-covid-19-factor-recent-violence-chicago-mayor/story?id=71662157> (accessed Jul. 09, 2020).
- [11] T. Gettys, "Florida teen dies after conspiracy theorist mom takes her to church event and tries to treat her with Trump-approved drug: report," Jul. 06, 2020.

The second theme concerned gun violence in Chicago over the 4th of July weekend. A *Daily Wire* article with over 352,000 engagements centered on Chicago Mayor Lori Lightfoot's statement that the causes of recent spikes in violence were a confluence of a number of factors, including policing and the coronavirus.[8] Though Mayor Lightfoot mentions guns in her statement, the *Daily Wire* article focuses specifically on the issue of gun ownership, which they argue is not a problem in Chicago. Because of this, the *Daily Wire* article neglect to discuss other contributing factors that have been suggested elsewhere. The *Daily Wire* article dismisses the argument that since George Floyd's murder, African American residents are even more hesitant to call for police assistance.[9] The same article also neglects to touch on the argument that coronavirus may have led to a reduction in jailings over concerns that jails provide ideal conditions for the transmission of the disease.[10]

CONCLUSION

We measure the social distribution networks of Facebook, Instagram, Reddit, Twitter, and YouTube and the levels of engagement with content related to the coronavirus pandemic. Sources of junk health news and information have distribution networks reaching hundreds of millions of social media users. Junk health news websites generate huge amounts of content that is widely disseminated and receives significant engagement.

RELATED WORK

Read [our review of state-backed English language media reporting](#) on Coronavirus. Find our previous weekly briefings [here](#).

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ABOUT THE PROJECT

The [Computational Propaganda Project](#) (COMPROP), based in the [Oxford Internet Institute](#) and University of Oxford, involves an interdisciplinary team of social and information scientists researching how political actors manipulate public opinion over social networks. This work includes analyzing how the interaction of algorithms, automation, politics, and social media amplifies or represses political content, disinformation, hate speech, and junk news. *Data Memos* present important trends with basic tables and visualizations. While they reflect methodological experience and considered analysis, they have not been peer reviewed. *Working Papers* present deeper analysis and extended arguments about public issues and have been collegially reviewed. Our *Coronavirus Misinformation Weekly Briefing* provides regular reports on the most prominent social media trends from the prior week. COMPROP articles, book chapters, and books are significant manuscripts that have been through peer review and formally published.