Written evidence submitted by Computational Project at the Oxford Internet Institute (COR0168)

Aliaksandr Herasimenka, Jonathan Bright, Philip Howard, Nahema Marchal, Marcel Schliebs

SUMMARY

We analysed the distribution of misinformation and low quality 'junk news' about Coronavirus on social media. We found that:

- Junk news sources that discuss Coronavirus are both widely distributed on social media, and generate a considerable amount of engagement.
- Junk news about Coronavirus could spread misleading and harmful health advice and use inflammatory rhetoric.
- Controversial and highly politicized heath information was ten times more likely to receive comments from its viewer than any other type of videos on YouTube.

INTRODUCTION

One critical potential avenue for online harm is the distribution of misinformation and low quality 'junk news' about Coronavirus. This submission discusses the scale and nature of information about Coronavirus that is distributed by two types of actors: foreign state backed media and alternative news sources. We also offer policy recommendations.

In previous work the Computational Propaganda Project at the Oxford Internet Institute has identified a wide variety of online information sources which were classified as 'junk news' based on the way they produce information. 'Junk news' are problematic, ideologically extreme, hyper-partisan, or conspiratorial information. The sources of junk news fail to adhere to journalistic standards; do not responsibility handle the difference between opinion and news; publish verifiably false information as factual news and mislead readers for political purposes (Bradshaw, Howard, Kollanyi, & Neudert, 2019). We examined websites that publish political information and classified some of them as junk news if they fulfilled 3 out of 5 following criteria related to professionalism, style, credibility, bias, and counterfeit.

Recently, we found just over 140 of junk news sources that were producing content specifically related to Coronavirus. We are currently tracking the diffusion of content produced by these sources on major social media platforms (Facebook, Twitter, Instagram and Reddit), and comparing it to known mainstream producers of high quality content. In this submission, we describe the extent of diffusion of material containing coronavirus keywords in the period May 1 – May 15, 2020. We compare state backed news sources and junk news sources to widely known mainstream equivalents.

Junk news narratives about Covid-19

Junk news about Coronavirus could include misleading and harmful health advice such as the idea that the virus is a hoax, or that it is linked to 5G networks. It could also include politically motivated news reporting by foreign state backed media. Such reporting often relies on inflammatory rhetoric which makes use of the virus to target vulnerable populations such as minority groups. Junk news sources often discussed allegations that hospitals exaggerate coronavirus cases and deaths, accusations of the WHO of incompetence, intimations of virus origin from the Wuhan virology lab and criticism of the "authoritarian" measures being instituted by elected governors across the US. Read more about dominant narrative in our weekly briefings (https://comprop.oii.ox.ac.uk/research/coronavirus-weekly-briefings/).

Social distribution network of Covid-19 information

We have measured the diffusion of information containing coronavirus keywords in two ways. First, we look at the 'social distribution network' our information sources possess (see Appendix for details on methodology). Figure 1 above shows the relative size of social distribution networks for both state backed (English language) media and junk news. We can see that state backed media have social distribution networks in totalling over two billion, considerably exceeding all mainstream comparator information sources.
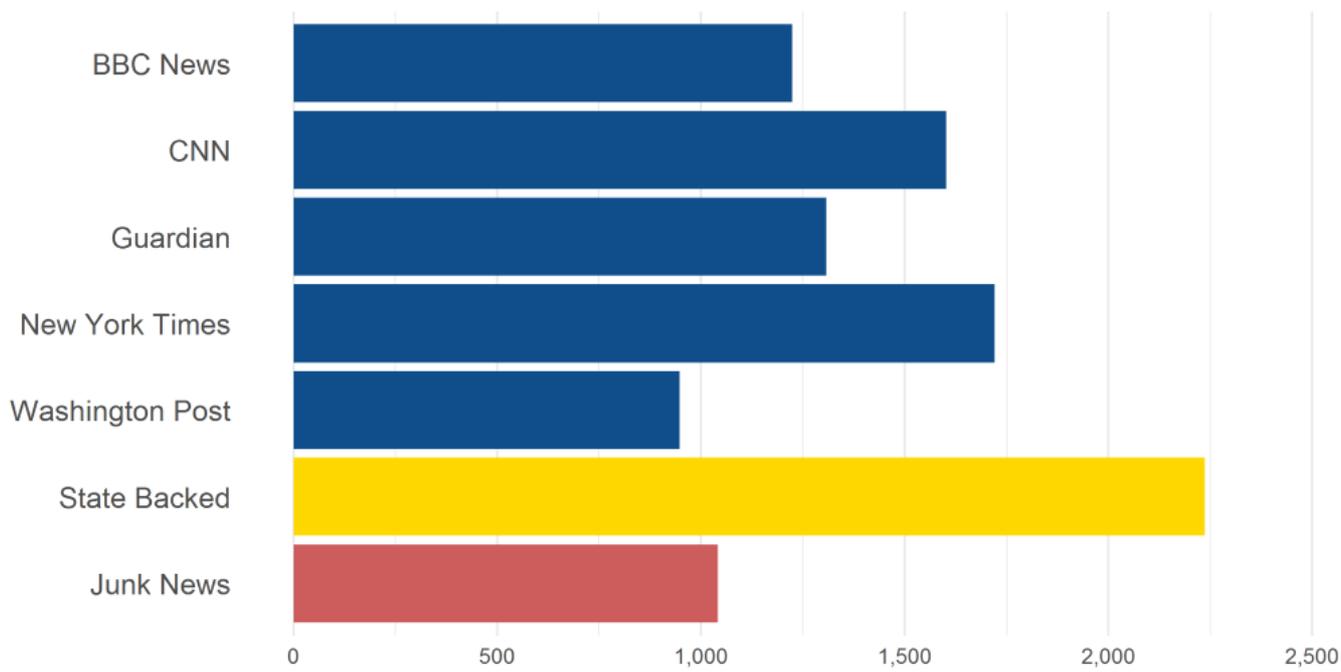
Figure 1: Social Distribution Network of Mainstream, State Backed and Junk News articles containing Coronavirus keywords, May 1 – May 15, 2020 (millions of accounts)
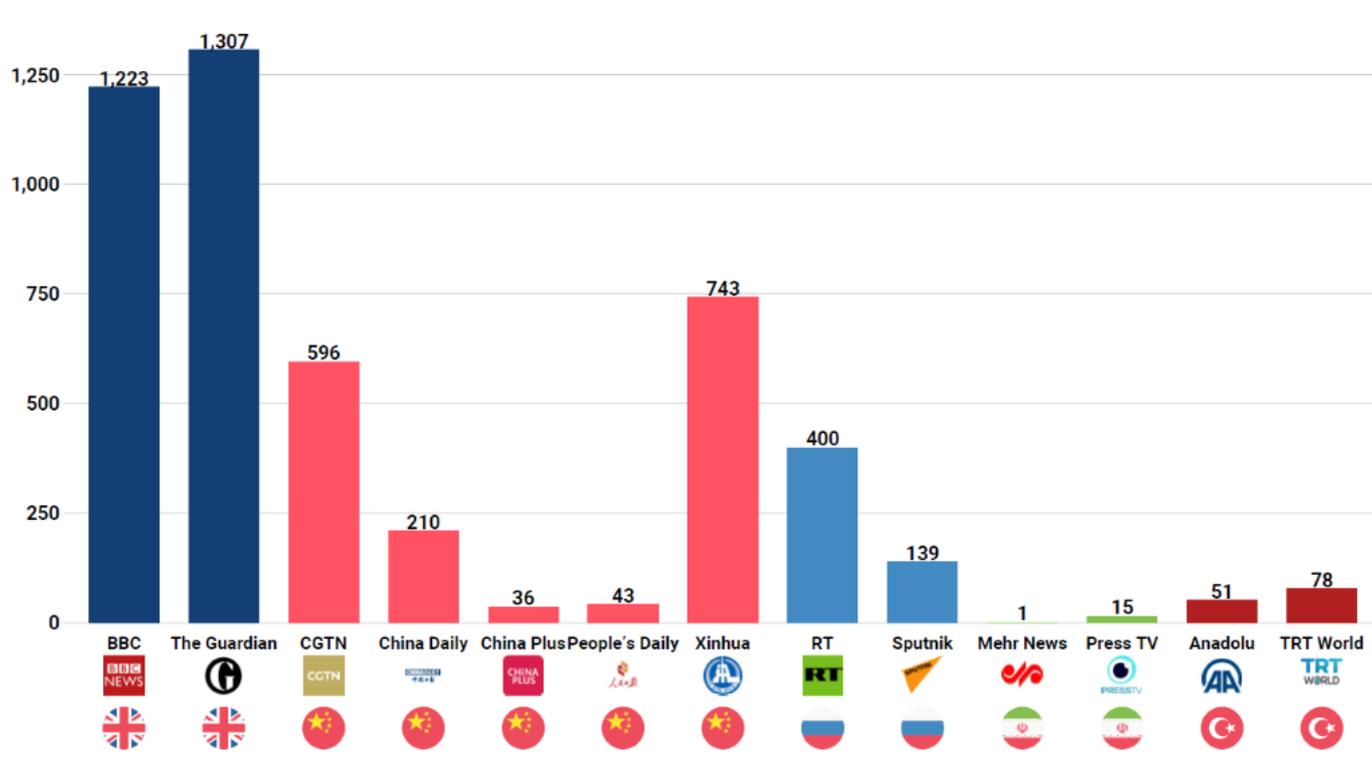

Figure 2: Social Distribution Network of specific State Backed information sources, May 1 – May 15, 2020 (millions of accounts)

Figure 2 breaks down these state backed information sources. We can see that Chinese state backed sources (such as Xinhua and CGTN) in particular have huge social distribution networks, though RT (run by Russia) also has a

network of considerable size. Whilst all of these are smaller than comparators such as the BBC and the Guardian, they are nevertheless of considerable size.

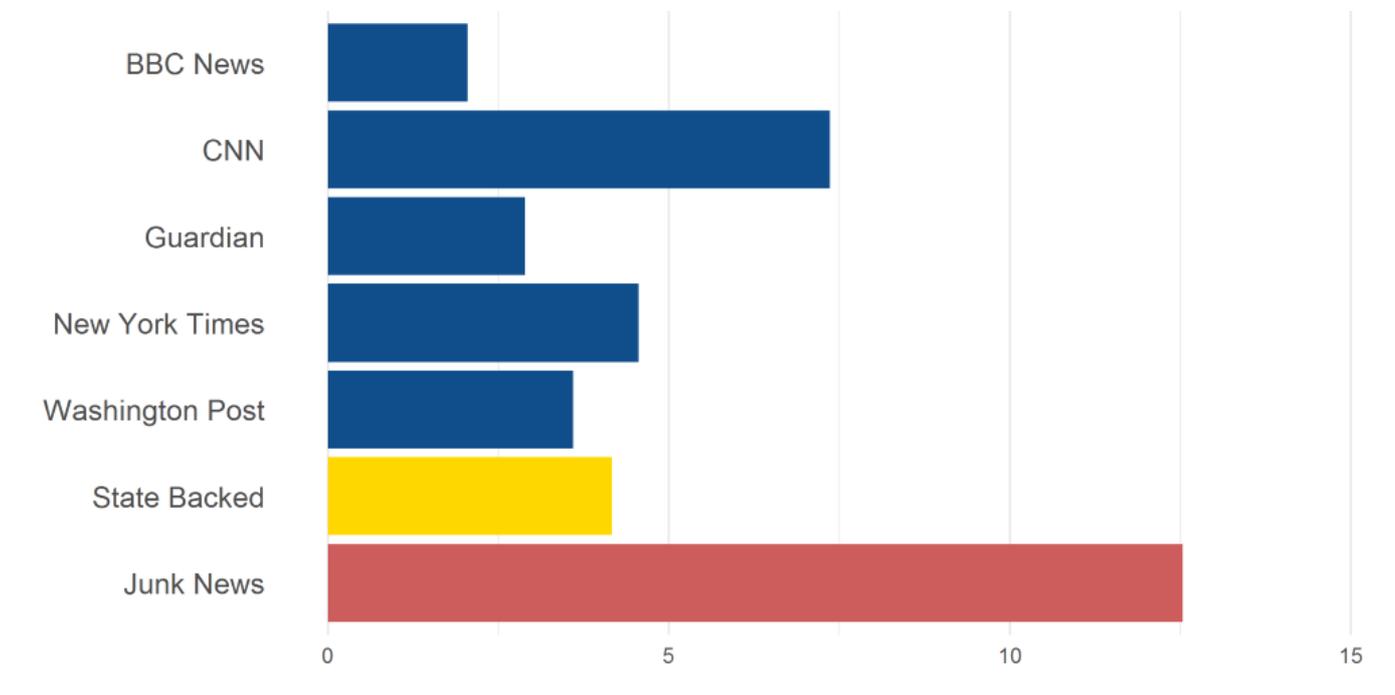## Engagement with Covid-19 information

Figure 3: Volume of engagement generated by Mainstream, State Backed and Junk News articles containing Coronavirus keywords, May 1 – May 15, 2020 (millions)

A second way of measuring the diffusion of content on social media is to look at the amount of 'engagement' generated by different types of information source. Acts of engagement include things like clicking the 'like' button on Facebook, or choosing to retweet a given article on Twitter. Figure 3 shows the amount of engagement generated in our observation window by the different information sources we are tracking. We can see that junk news sources collectively generated over 12 million acts of engagement in this observation window, far more than any of the mainstream information sources we track.

We conclude that low quality information sources are both very widely distributed on social media, and generate a considerable amount of engagement.

Covid-19 on YouTube

YouTube is a major source of information about science, technology and health and a gateway to news for many of its users. In the first major study of Covid-19 information on YouTube (Marchal, Au & Howard, 2020), we performed content analysis of the 320 video top results on YouTube associated with four popular search terms in the UK. We were particularly interested in finding out what sources and channels were most represented in search results; to what extent video content around the origins of Covid-19, transmission, and cure was being politicized, and how much of it was factually inaccurate, misleading, or conspiratorial.

We found that four-fifths of the channels sharing Covid-19 information were maintained by professional news outlets, and that the channels of public health agencies, such as that of the NHS and WHO, were rarely, if ever, returned with search results. Searches for popular coronavirus-related terms returned mostly factual and neutral video results, with low volumes of conspiratorial or junk science video results. While these types of video did not feature prominently in top video results, controversial and highly politicized heath news and information was ten times more likely to receive comments from its viewer than any other type of videos.

POLICY RECOMMENDATIONS

Based on our previous work, we identified a number of policy recommendations:

- To address the spread of misinformation about COVID-19, independent fact-checkers, independent news media, platform companies, and public authorities should coordinate their efforts. This will help the public understand and navigate the pandemic.

- High-level politicians should communicate clearly, accurately, and honestly about the pandemic. Otherwise, citizens will misunderstand the situation and put their communities, their loved ones, themselves and at greater risk.

- Public agencies should make greater use of YouTube to share vital information and advice on the pandemic with the public. It is important to share vital information in a video format before other, sometimes misguided actors, fill that void (see for example https://www.theatlantic.com/ideas/archive/2020/05/health-experts-dont-understand-how-information-moves/611218/).

RELATED WORK

Read our review of state backed English language media reporting on Coronavirus (https://comprop.oii.ox.ac.uk/wp-content/uploads/sites/93/2020/04/Coronavirus-Coverage-by-State-Backed-English-Language-News-Sources.pdf).
Find our previous weekly briefings here (https://comprop.oii.ox.ac.uk/research/coronavirus-weekly-briefings/).

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ACKNOWLEGMENTS

ABOUT THE PROJECT

The Computational Propaganda Project (COMPROP), which is based at the Oxford Internet Institute, 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 analysing how the interaction of algorithms, automation, politics, and social media amplifies or represses political content, disinformation, hate speech, and junk news.

APPENDIX

Detailed criteria of junk news sources examination

We classified a website as junk news if it fulfilled 3 out of 5 following criteria:

- Professionalism: These sources do not employ standards and best practices of professional journalism. They refrain from providing clear information about real authors, editors, publishers and owners. They lack transparency and accountability, and do not publish corrections on debunked information.
- Style: These sources use emotionally driven language with emotive expressions, hyperbole, ad hominem attacks, misleading headlines, excessive capitalization, unsafe generalizations and logical fallacies, moving images, and lots of pictures and mobilizing memes.
- Credibility: These sources rely on false information and conspiracy theories, which they often employ strategically. They report without consulting multiple sources and do not fact-check. Sources are often untrustworthy and standards of production lack reliability.
- Bias: Reporting in these sources is highly biased, ideologically skewed or hyper-partisan, and news reporting frequently includes strongly opinionated commentary and inflammatory viewpoints.
- Counterfeit: These sources mimic established news reporting. They counterfeit fonts, branding and stylistic content strategies. Commentary and junk content is stylistically disguised as news, with references to news agencies and credible sources, and headlines written in a news tone with date, time and location stamps.

Social distribution network

We define social distribution network as the sum total of users who follow accounts which share content produced by these information sources. For example, if an article from BBC news is shared by one Facebook page and one Twitter account, then the social distribution network will be the amount of followers of the Facebook page plus the amount of followers of that Twitter account

See more details on methods of data collection is published here https://comprop.oii.ox.ac.uk/wp-content/uploads/sites/93/2020/04/COMPROP-Weekly-Briefing-Methodology.pdf .

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