

# Health (mis)information behaviour in the COVID-19 era



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# From my inbox yesterday...



**Wrong**

by admin



The world is full of opinions that are equally valid. But there are other things that are just factually incorrect, no matter how vigorously mistaken people might try to promote them.

*What steps do you take to insure that information you share is, in fact, true?*

# What is the DUMBEST thing Trump has said?

**A** Inject People With Disinfectant

**B** Windmills Cause Cancer

**C** You Clean The Coal, Then You Put It Back

**D** Nuke You Like A Hurricane

**E** F35 Jets Are Invisible

**F** It's Wet In Terms of Water... Big Water

**G** Revolutionary Army Took Over Airports In The 1700s

# Is he dumb or just distracting us?



**Donald J. Trump**  @realDonaldTrump · Mar 16

The United States will be powerfully supporting those industries, like Airlines and others, that are particularly affected by the Chinese virus. We will be stronger than ever before!

 127.4K

 69.8K

 319.9K





University of  
**Strathclyde**  
Science





## COVID-19 CORONAVIRUS PANDEMIC

Last updated: June 09, 2020, 10:02 GMT

[Graphs](#) - [Countries](#) - [Death Rate](#) - [Symptoms](#) - [Incubation](#) - [Transmission](#) - [News](#)

Coronavirus Cases:

**7,217,163**[view by country](#)

Deaths:

**409,095**

Recovered:

**3,553,108**

## ACTIVE CASES

**3,254,960**

Currently Infected Patients

## CLOSED CASES

**3,962,203**

Cases which had an outcome:

[https://www.worldometers.info/coronavirus/?utm\\_campaign=homeAdUOA?Si](https://www.worldometers.info/coronavirus/?utm_campaign=homeAdUOA?Si)

# What is the core problem?

- “We live in an age of misinformation – an age of spin, marketing, and downright lies” (O’Connor & Weatherall, 2019, p. 9)
- World Health Organization has declared, along with the pandemic, a “massive infodemic”: “an over-abundance of information – some accurate and some not – that makes it hard for people to find trustworthy sources and reliable guidance when they need it”

# Global health crises are also information crises: A call to action (Xie et al., *JASIST*, 2020)

- Misinformation: inaccurate interpretations
- Disinformation: deliberately falsified
- IS research needed on info behaviour in pandemics and lockdowns to increase health and media literacy in a time when the flow of information online is constantly changing
- Vulnerable groups: digital divide, socioeconomic status, older adults
- Action items for IS are outlined



# Seven types of COVID-19 misinformation found on social media (Mai & Gruzd, 2020)

- Promoting fake tests and cures
- Speculation on the origin
- Speculation and/or diminishment of the virus' severity
- Scamming and playing on people's fears
- Maligning brands
- Rumours about celebrities
- Race-baiting and racist remarks

# Some questions to consider

- What are the facts? Who has them?
- What are the opinions? Who has them?
- What do we believe, and why?
- Cultural influences?



<https://www.scmp.com/economy/global-economy/article/3074821/coronavirus-chinas-mask-making-juggernaut-cranks-gear>

# Who or what do we trust?

- The evolving nature of authoritative medical information online (Neal [Pennington], 2010)
- More people (patients) determining this, and with different criteria than info or medical professionals
- Cognitive authority: how much can we trust the information? (Wilson, 1983, Rieh, 2002)
- Affective authority: “the extent to which users think the information is subjectively appropriate, empathetic, emotionally supportive, and/or aesthetically pleasing” (Neal [Pennington] & McKenzie, 2011, p. 131)

# The COVID-19 era is within the “post-truth” era

- “relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief” (Oxford Dictionary’s Word of the Year 2016)
- Rooted in misleading information through politics: UK’s Brexit vote, Trump’s election, rise of the far-right populists, etc.

# Non-information science research: Philosophy (McIntyre, 2018)

- Socrates said ignorance can be taught away; those who think they already know the truth are more likely to act on non-truth
- Post-truth does not mean that truth doesn't exist; it means facts are less important than our individual epistemology
- Cognitive bias influences all of our own reality, from climate change to Brexit to #blacklivesmatter

# Psychology and cognition

- People choose to believe what information appeals to them emotionally rather than what is backed up by facts/science (Acerbi, 2019; Robinson & Spring, 2020)



**OR**



- People with higher cognitive ability are more likely to adjust understanding when known incorrect information is countered with facts (De keersmaecker & Roets, 2017)



# Beyond misinformation: Understanding and coping with the “post-truth” era (Lewandowsky et al., 2017)

- Misinformation is not just a correctable cognitive problem, but also influenced by alternative epistemologies
- Many societal, economic, political, media trends have led us to this era; it is now a power struggle
- “An obvious hallmark of a post-truth world is that it empowers people to choose their own reality, where facts and objective evidence are trumped by existing beliefs and prejudices” (p. 361)
- Suggestions: media literacy, education, machine learning & AI techniques to fact-check, breaking filter bubbles, better IA
- “Technocognition”: IA design using behavioural economics to fight the spread of misinformation, with a program of public education and better journalism

# How (mis)information spreads on social media

- Social media sharing requires very little action (but can benefit the sharer psychologically) (Acerbi, 2019)
- Bots have a major impact on social media by constantly spreading misinformation (Azzimonti & Fernandes, 2018; Alhayan & Pennington, 2020)
- A study (Del Vicario, 2016) of Facebook users' information sharing showed selective exposure to homogenous content
  - This leads to “echo chambers” in both groups of truths and non-truths
  - The “filter bubble” (Pariser, 2011)
  - But is this entirely Facebook's fault or also our fault? Conscious or unconscious choices?

# The interesting case of conspiracy theories (insert X-Files song here)

- People who feel they lack control are more likely to believe in conspiracy theories (Whitson & Galinsky, 2008)
- Related fear causes people to search for patterns that help us find our beliefs; fear influences irrational beliefs (van Prooijen et al., 2018)
- Conspiracy theories have become essential to research because their spread is harming health and wellbeing (van Prooijen & Douglas, 2018)

# Watch out for sources that claim to debunk misinformation



## **ANALYSIS: MSM WILL HYPE ADVERSE REACTIONS TO TRUMP VACCINE IN PREPARATION FOR GATES-FUNDED SHOT**

Be aware of the next globalist narrative!

<https://www.infowars.com/analysis-msm-will-hype-adverse-reactions-to-trump-vaccine-in-preparation-for-gates-funded-shot/>

Anyone that takes Zionist Trump's vaccine will NOT be around for any elections, except in HELL, where that vaccine will send you.

They can stick their vaccines up their asses. Vaccines won't kill me but the people pushing them will, in self-defense.

# Facts from WHO to dispel misinformation and conspiracies

- The prolonged use of medical masks when properly worn, DOES NOT cause CO2 intoxication nor oxygen deficiency
- Most people who get COVID-19 recover from it
- Drinking alcohol does not protect you against COVID-19 and can be dangerous
- Thermal scanners CANNOT detect COVID-19
- There are currently no drugs licensed for the treatment or prevention of COVID-19
- Adding pepper to your soup or other meals DOES NOT prevent or cure COVID-19
- COVID-19 IS NOT transmitted through houseflies
- Spraying and introducing bleach or another disinfectant into your body WILL NOT protect you against COVID-19 and can be dangerous
- 5G mobile networks DO NOT spread COVID-19
- Exposing yourself to the sun or to temperatures higher than 25C degrees DOES NOT prevent the coronavirus disease (COVID-19)
- You can recover from the coronavirus disease (COVID-19). Catching the new coronavirus DOES NOT mean you will have it for life.
- Being able to hold your breath for 10 seconds or more without coughing or feeling discomfort DOES NOT mean you are free from the coronavirus disease (COVID-19) or any other lung disease.
- COVID-19 virus can be transmitted in areas with hot and humid climates
- Cold weather and snow CANNOT kill the new coronavirus
- Taking a hot bath does not prevent the new coronavirus disease
- The new coronavirus CANNOT be transmitted through mosquito bites
- And more...

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters>

# Lies lead to more lies?



**Kaitlan Collins** ✓  
@kaitlancollins



Attorney General Barr tells  
[@BretBaier](#) President Trump went  
to the bunker that Friday evening  
because of the protests outside the  
White House. "Things were so bad  
that the Secret Service  
recommended the president go  
down to the bunker. We can't have  
that in our country."



6 hrs

Follow

These people can't keep their lies straight. Not a single person in this regime has any credibility left.



# Social media, mis/disinformation, and COVID-19: Emerging work

- Oxford Internet Institute is watching COVID-19 social media content from governments and public figures; reaching many users with strong engagement and distraction (Howard, 2020)
- Kim (2020) studied “Wuhan pneumonia” content on South Korean social media posts; bigger social networks and more positive responses led to more civil discourse
- Cinelli et al. (2020) studied 5 social media platforms; the spread of information influences behaviour and can counter disinformation attempts, but this is based on paradigms used on each platform as well as user groups’ interactions (e.g. Gab)
- Misinformation sharing may be unintentional; motivation for sharing such as seeking attention may be a factor as well (Allem, 2020)
- “Social media is an information vacuum” but it can be used for good in educating, organising, caring, leadership (Das & Ahmed, 2020)  
#TrumpLiesAboutCoronavirus #WhereIsBoris #stayathome  
#savelives #socialdistancing

# YouTube's Medical Misinformation Policy

YouTube doesn't allow content about COVID-19 that poses a serious risk of egregious harm.

YouTube doesn't allow content that spreads medical misinformation that contradicts the World Health Organization (WHO) or local health authorities' medical information about COVID-19. This is limited to content that contradicts WHO or local health authorities' guidance on:

- Treatment
- Prevention
- Diagnostic
- Transmission

**Note:** YouTube's policies on COVID-19 are subject to change in response to changes to global or local health authorities' guidance on the virus. This policy was published on May 20, 2020.

<https://support.google.com/youtube/answer/9891785>

# Twitter's attempts at stopping disinformation (and counterattack!)



This Tweet violated the Twitter Rules about glorifying violence. However, Twitter has determined that it may be in the public's interest for the Tweet to remain accessible. [Learn more](#)

....These THUGS are dishonoring the memory of George Floyd, and I won't let that happen. Just spoke to Governor Tim walz and told him that the Military is with him all the way. Any difficulty and we will assume control but, when the looting starts, the shooting starts. Thank you!



There is NO WAY (ZERO!) that Mail-In Ballots will be anything less than substantially fraudulent. Mail boxes will be robbed, ballots will be forged & even illegally printed out & fraudulently signed. The Governor of California is sending Ballots to millions of people, anyone....

! Get the facts about mail-in ballots

## Executive Order on Preventing Online Censorship

— INFRASTRUCTURE & TECHNOLOGY | Issued on: May 28, 2020

"In a country that has long cherished the freedom of expression, we cannot allow a limited number of online platforms to hand pick the speech that Americans may access and convey on the internet. This practice is fundamentally un-American and anti-democratic. When large, powerful social media companies censor opinions with which they disagree, they exercise a dangerous power. They cease functioning as passive bulletin boards, and ought to be viewed and treated as content creators."

<https://www.whitehouse.gov/presidential-actions/executive-order-preventing-online-censorship/>

# The plot will only thicken from here...

## Trump tweets Antifa will be labeled a terrorist organization but experts believe that's unconstitutional



By [Evan Perez](#) and [Jason Hoffman](#), CNN  
Updated 2321 GMT (0721 HKT) May 31, 2020



**Donald J. Trump**  @realDonaldTrump · May 31

The United States of America will  
be designating ANTIFA as a  
Terrorist Organization.

 173.5K

 226.1K

 832.9K



## White supremacists pose as Antifa online, call for violence



By [Donie O'Sullivan](#), [CNN Business](#)  
Updated 1709 GMT (0109 HKT) June 2, 2020

<https://edition.cnn.com/2020/05/31/politics/trump-antifa-protests/index.html>

<https://edition.cnn.com/2020/06/02/tech/antifa-fake-twitter-account/index.html>

# We have work to do...

- *Research:* Interdisciplinary IS research into information behaviour on social media during a pandemic and a concurrent worldwide civil rights movement
- *Practice:* Develop society's media and health literacies, especially including people who are vulnerable and/or information poor
- *Teaching:* include relevant and up-to-date advanced 21<sup>st</sup> century skills to IS students: organisational social media engagement, AI/machine learning/data science to help the platforms detect mis/disinformation...
- *Service/citizenship:* get involved locally while staying safe; can we help our cities and institutions?

# Thank you! Please share:

**Do not under any circumstance spray or introduce bleach or any other disinfectant into your body. These substances can be poisonous if ingested and cause irritation and damage to your skin and eyes.**

**Bleach and disinfectant should be used carefully to disinfect surfaces only.**

**Remember to keep chlorine (bleach) and other disinfectants out of the reach of children.**



World Health  
Organization

**#COVID19 #coronavirus**

**FACT:  
Spraying or introducing  
bleach or another  
disinfectant into your  
body WILL NOT protect  
you against COVID-19  
and can be dangerous**



27 April 2020

<https://www.who.int/images/default-source/health-topics/coronavirus/myth-busters/web-mythbusters/28.tmb-1920v.png>



# Bibliography

Available on my website:

[https://personal.cis.strath.ac.uk/diane.pennington/?page\\_id=385](https://personal.cis.strath.ac.uk/diane.pennington/?page_id=385)