

COVID-19 Misinformation Annotation Codebook: Twitter

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1 Introduction

Detection and characterization of the different themes around COVID-19 has become a topic of interest for many researchers. In this document, we present a comprehensive codebook related to the themes around the Twitter COVID-19 discourse specifically in the context of misinformation. This codebook has been created after many discussions, and we release it for the researchers as a “call to arms” to use for collecting further annotations and data. The first iteration of the dataset collected called *CMU-MisCov19*, using this codebook, along with a set of preliminary analyses can be found in [1].

2 Coding Scheme

Table 1 shows the list of categories we will consider for annotating Tweets related to COVID-19 misinformation on Twitter.

Table 1. This table describes the categories along with their IDs

ID	Category
0	Irrelevant
1	Conspiracy
2	True Treatment
3	True Prevention
4	Fake Cure
5	Fake Treatment
6	False Fact or Prevention
7	Correction/Calling out
8	Sarcasm/Satire
9	True Public Health Response
10	False Public Health Response
11	Politics
12	Ambiguous/Difficult to Classify
13	Commercial Activity or Promotion
14	Emergency Response
15	News
16	Panic Buying

3 Description

The following section describes each of the categories in detail, along with their corresponding examples and justifications.

0. Irrelevant

A tweet shall be classified as irrelevant if it may or may not mention COVID-19 or SARS-Cov-2, but if it cannot be classified in *any* of the other categories below.

Example(s):

Tweet	Justification
<p><i>"If you're feeling like it, today is "Update Friday" so dip into a channel relevant to your interests and answer a question or pose one. Let's get chatty."</i></p>	<p>This tweet should be marked as irrelevant as it is not relevant to COVID-19 or SARS-Cov-2.</p>
<p><i>"If Taylor Swift and Avril Lavigne collaborate on a song together it would be the cure for coronavirus. https://t.co/90NxHkmJcc"</i></p>	<p>This tweet mentions <i>Coronavirus</i>, but ultimately is unrelated in terms of content, and hence should be marked as irrelevant.</p>
<p><i>"The cure against Coronavirus is 'Kings & queens' by avamax stream it now! https://t.co/idoU6gRLHN"</i></p>	<p>This tweet mentions <i>Coronavirus</i>, but ultimately is unrelated in terms of content, and hence should be marked as irrelevant.</p>
<p><i>"@twlldun It's not fair I was into Covid before anyone heard of it. Now everyone is all like 'OMG Covid 19' like they invented it. Where were you when it was Covid 1-18 guys? It's Bleach all over again it's not fair. Am I doing this right?"</i></p>	<p>This tweet mentions <i>COVID-19</i>, but ultimately is unrelated in terms of the content, and hence should be marked as irrelevant.</p>

1. Conspiracy

A tweet shall be classified as a conspiracy if it *endorses a conspiracy story*. Some examples of conspiracy themes related to COVID-19 include:

1. It is a *bioweapon*.
2. Electromagnetic fields and the introduction of *5G wireless technologies* led to COVID-19 outbreaks.
3. This was a plan from *Gates Foundation* to increase the Gates' wealth.
4. It leaked from the *Wuhan Labs* or Wuhan Institute of Virology in China.
5. It was *predicted* by Dean Koontz.

Examples:

Tweet	Justification
<p><i>“Interesting interview with Prof. Frances Boyle re. #COVID19 is indeed a perfect #Bioweapon! Smoking gun proof! Scary shit!”</i></p>	<p>This tweet shall be marked as a conspiracy as it is endorsing Prof. Frances Boyle’s video on COVID-19 being a bioweapon.</p>
<p><i>“Starting to blame US for Covid-19. This is ridiculous. It came from wuhan. CIA has stated in leaked documents that the wuhan laboratory is, in fact, a “hidden” bioweapon engineering facility. The only lab in all of China rated high enough for handling such diseases. It probably-”</i></p>	<p>This tweet shall be marked as a conspiracy as it endorsing the misinformation that COVID-19 was leaked from a lab in Wuhan.</p>
<p><i>“i think both 5G and covid-19 lowering immune system. considering the great suspicion that covid-19 is actually an offensive warfare bioweapon, they maybe designed to work together, greatly increasing coronavirus lethality. turning 5G off might be the antidote to coronavirus.”</i></p>	<p>This tweet shall be marked as a conspiracy as it is endorsing the misinformation that 5G is responsible for the COVID-19 outbreak, and that 5G weakens the immune system.</p>

2. True Treatment

A tweet shall be classified as a true treatment if it endorses a method of treatment to ease the pain (rest and sleep, keep warm, drink plenty of liquids, etc.), and if any of the following conditions are met:

1. The treatment has been *verified by the World Health Organization (WHO) site.*
2. The treatment has been *verified by the Center of Disease Control and Prevention (CDC) site.*
3. The treatment is *supported by a peer-reviewed scientific journal* that appears in Ulrich’s Global Serials Directory as both “Active” and “Refereed/Peer-reviewed”.
4. The treatment is *supported by a publicly posted working paper* authored or co-authored by tenure track faculty at a university in the top-800 universities worldwide according to the Times Higher Education World University Rankings 2019.
5. Tweet links directly to news story which *correctly* cites a peer-reviewed journal article (using standards above to adjudicate the journal).

Example:

Tweet	Justification
<p><i>“Mild fever itchy throat doc says sleep well drink fluids (the non alcoholic kind he stressed). I feel anxious about covid then remember I have these symptoms 4 times every year.”</i></p>	<p>This tweet shall be marked as a true treatment as the tweet endorses some of the treatments for self care verified by WHO.</p>

3. True Prevention

A tweet shall also be classified in this category if it explicitly endorses a method of prevention and any of the following conditions are met:

1. The prevention has been *verified by the World Health Organization (WHO) site.*
2. The prevention has been *verified by the Center of Disease Control and Prevention (CDC) site.*

3. The prevention is *supported by a peer-reviewed scientific journal* that appears in Ulrich's Global Serials Directory as both "Active" and "Refereed/Peer-reviewed".
4. The prevention is *supported by a publicly posted working paper* authored or co-authored by tenure track faculty at a university in the top-800 universities worldwide according to the Times Higher Education World University Rankings 2019.

Some examples of the known true preventions of the COVID-19 disease from the [CDC site](#) include:

1. Washing your hands often
2. Avoiding close contact
3. Covering your mouth and nose
4. Covering coughs and sneezes
5. Cleaning and disinfecting
6. Monitoring your health

Note: A tweet "No, cocaine does not prevent coronavirus" would not fall into this category as while it may be preventative (i.e. preventing people from cocaine), it is not a prevention for the COVID-19 disease itself.

Examples:

Tweet	Justification
<i>"Bleach sleeping pads and masks: What the military and Veterans Affairs are asking for to combat coronavirus. . . https://t.co/ljmyUkWF0E."</i>	This tweet shall be marked as a true prevention as it links out to a credible news source that implicitly mentions preventative guidelines by the CDC to assist in stopping the spread of the virus.
<i>"Personally my daily life really hasn't changed any. I believed in good hygiene before coronavirus and I will after. I already had an appropriate stock of hand sanitizer, antibacterial wipes, Lysol spray, bleach, body washes, and household cleaners. Its called hygiene."</i>	This tweet shall be marked as a true prevention as it encourages good hygiene which is endorsed by WHO.

4. Fake Cure

A tweet shall be classified as a fake cure if the content *endorses a cure* and any of the following conditions are met:

1. The cure **cannot** be *verified by the World Health Organization (WHO) site*.
2. The cure **cannot** be *verified by the Center of Disease Control and Prevention (CDC) site*.
3. The cure is **not supported by a peer-reviewed scientific journal** that appears in Ulrich's Global Serials Directory as both "Active" and "Refereed/Peer-reviewed".
4. The cure is **not supported by a publicly posted working paper** authored or co-authored by tenure track faculty at a university in the top-800 universities worldwide according to the Times Higher Education World University Rankings 2019.

Examples:

Tweet	Justification
<p><i>“Leaked medical conference documents reveal US hospitals preparing for 96 million coronavirus infections and 480,000 deaths! ARE YOU PREPARED? PREPARE, PREVENT, CURE NOW: 1. With Colloidal Silver! https://keto-longevity.com/colloidal-silver-for-longevity/. 2. 7,000 Vitamin D daily. 3. Get Masks+Goggles”</i></p>	<p>This tweet shall be marked as a fake cure as it is advertising a cure not endorsed/verified by WHO or CDC.</p>

5. Fake Treatment

A treatment is different from cure as treatment improves a condition rather than completely remove the disease. A tweet shall be classified as a fake treatment if the content *endorses a treatment* and any of the following conditions are met:

1. The treatment **cannot** be *verified by the World Health Organization (WHO) site*.
2. The treatment **cannot** be *verified by the Center of Disease Control and Prevention (CDC) site*.
3. The treatment is **not supported by a peer-reviewed scientific journal** that appears in Ulrich’s Global Serials Directory as both “Active” and “Refereed/Peer-reviewed”.
4. The treatment is **not supported by a publicly posted working paper** authored or co-authored by tenure track faculty at a university in the top-800 universities worldwide according to the Times Higher Education World University Rankings 2019.

Examples:

Tweet	Justification
<p><i>“I currently have the flu (haven’t been tested for covid 19) and although I’m not saying that essential oils cure or protect from it eucalyptus and tea tree oil are sure helping me reduce a lot of my symptoms. When a vaccine comes I’m gonna gobble that shit up though https://t.co/PpxeRRtiue”</i></p>	<p>This tweet shall be marked as a fake treatment as it is suggesting a treatment not endorsed by WHO or CDC.</p>
<p><i>“How to get rid of Uneasiness in Breathing a symptom of Covid-19. Please use Sesame oil , Rock Salt as mentioned in Charaka Samhitha. Ayurveda has many solutions Source: Charaka Samhitha available Online”</i></p>	<p>This tweet shall be marked as a fake treatment as it is advertising a treatment not endorsed by WHO or CDC.</p>

6. False Fact or Prevention

A tweet shall be classified as a false fact or prevention if the content mentions a false fact related to “killing” or “disrupting” coronavirus. A tweet shall be classified as a false fact or prevention if the content implicitly or explicitly *endorses a method of prevention for coronavirus* and any of the following conditions are met:

1. The prevention **cannot** be *verified by the World Health Organization (WHO) site*.
2. The prevention **cannot** be *verified by the Center of Disease Control and Prevention (CDC) site*.
3. The prevention is **not supported by a peer-reviewed scientific journal** that appears in Ulrich’s Global Serials Directory as both “Active” and “Refereed/Peer-reviewed”.
4. The prevention is **not supported by a publicly posted working paper** authored or co-authored by tenure track faculty at a university in the top-800 universities worldwide according to the Times Higher Education World University Rankings 2019.

Examples:

Tweet	Justification
<p><i>"I heard the best way to prevent coronavirus is to pour bleach directly into your eyes and drink a full bottle of hand sanitizer."</i></p>	<p>Technically this tweet is both <i>sarcasm</i> and <i>fake prevention</i>. For the purposes of this project, this shall be coded under false fact or prevention because: i) there are no obvious signs of sarcasm such as an emoticon :) ; and (ii) disinformation is often spread as anecdotes.</p>
<p><i>"2008 Research paper demonstrating various essential oil effectivity in disrupting SARS-CoV and HSV-1 replication. #coronavirus #COVID-19 #COVID19 #CoronaVirus2020 #HSV #essentialoil #essentialoils #sars #sarscov #sars_cov #Covidcure #Hydroxychloroquine https://t.co/tke32spM8E https://t.co/drzBn2nVGp"</i></p>	<p>This tweet will be marked as false fact or prevention as it is directly against the WHO guidance, endorses a common misinformation related to essential oils, and it tries to get credibility by listing a link to a related publication.</p>
<p><i>"Garlic may help? #Covid19 Antimicrobial properties https://t.co/Anfc5SvfEy"</i></p>	<p>This tweet will be marked as false fact or prevention as it is directly against the WHO guidance, and it tries to get credibility by incorrectly listing their URL.</p>
<p><i>"@CNN These things are to 'reinforce and boost' immune system. Ginger, Onions, Garlic: anti-bacterial, anti-fungal and anti-viral properties, is known to reduce inflammation in the body. How can you tell there is no evidence? #coronavirus"</i></p>	<p>This tweet shall be marked as a false fact or prevention as it is endorsing a prevention (via boosting of immune system) which is not supported by WHO or CDC or any scientific study.</p>

7. Correction/Calling out

A tweet shall be classified as correction if any of the following conditions are met:

1. The tweet *calls out or makes fun of* a fake cure, a fake prevention, fake treatment, or a conspiracy theory.
2. The tweet *links out to a site that debunks, calls out or makes fun of* a fake cure, a fake prevention, fake treatment, or a conspiracy theory.
3. The tweet *calls out or make fun of violations* of social distancing rules or public health responses.
4. The tweet reports/quotes a (news) story related to consequences of a false fact, fake prevention, fake cure, fake treatment, or conspiracy theory.
5. The tweet reports/quotes a (news) story debunking a false fact, fake prevention, fake cure, fake treatment, or conspiracy theory.

Examples:

Tweet	Justification
<p><i>“Taking a hot bath, eating lots of garlic and spraying chlorine all over your body - these are just some of the so-called solutions to Coronavirus that can be found on the internet. https://t.co/CKQhmAKPRX”</i></p>	<p>This tweet can be classified as correction/calling out as it points to a site titled: <i>Coronavirus: So-called ‘solutions’ debunked by World Health Organisation</i>. The usage of the term “so-called” in the tweet also indicates that this is a correction.</p>
<p><i>“No, #Cocaine does not protect against #coronavirus -French Officials.”</i></p>	<p>This tweet can be classified as a correction/calling out as it endorses the statement by french officials calling out a specific fake prevention.</p>
<p><i>“Someone told me, in support of a conspiracy theory, “well on the side of a bottle of bleach it says it kills coronavirus” and I’m like...y’all there are lots of coronaviruses that is not how this works.”</i></p>	<p>This tweet can be classified as a correction/calling out as the author clearly describes their stance by calling out the fake cure/prevention related to drinking bleach.</p>
<p><i>“Coronavirus myths, debunked: A cattle vaccine, bioweapons and a \$3,000 test https://t.co/ykoLUIGspQ”</i></p>	<p>This tweet should be marked as a correction/calling out since it links out to a credible news source debunking the claims.</p>
<p><i>“Another day another meme to debunk: Vaccines for the bovine coronavirus will not cure COVID-19 https://t.co/qwHkLOnXw4”</i></p>	<p>This tweet should be marked as a correction/calling out since it links out to a credible news source debunking the claims.</p>
<p><i>“This is what ‘the cure can’t be worse than disease’ crowd is ok with happening. https://t.co/0YSv1C69St.”</i></p>	<p>This tweet should be marked as a correction/calling out since it calls out a public health response and social distancing, linking to a credible news source.</p>
<p><i>“Coronavirus: Cocaine cure myth spreads, rebutted by French government - Business Insider https://t.co/rzusol40YG”</i></p>	<p>This tweet should be marked as a correction/calling out since it endorses a public health response by the French government to debunk misinformation.</p>

8. Sarcasm/Satire

A tweet shall be classified as sarcasm/satire if any of the following conditions are met

1. The tweet contains *clear signs of a satire* calling out a fake cure, a fake prevention or a conspiracy.
2. The tweet includes a clear *joke* about a fake cure, a fake prevention or a conspiracy.

Concretely, this is a tweet where the information in the post is false but is presented using humor, irony, exaggeration, or ridicule to expose and criticize people’s stupidity or vices, particularly in the context of contemporary politics and other topical issues. This kind of post is used to ridicule other false statements or people.

Examples:

Tweet	Justification
<i>"Which essential oil is best for getting people to relax about the Coronavirus?"</i>	This tweet can be classified as a satire as it is using sarcasm to call out the essential oil fake cures.
<i>"Sesame oil, oregano oil and garlic. Who needs vaccines when you can marinate?"</i>	This tweet can be classified as a satire as it is using sarcasm to call out the different fake cures.
<i>"There's no way I can get the Coronavirus I snorted cocaine off the back of the toilet at alahome I'm immune to death itself."</i>	This tweet can be classified as a satire as it is using sarcasm to call out the cocaine-related fake cure/treatment.
<i>"Elmo isn't scared of the Coronavirus. Elmo's theory is that if you do enough cocaine, it'll kill the virus. https://t.co/YX6gsYAVI0"</i>	This tweet can be classified as a satire as it is using sesame street character Elmo, and sarcasm to call out the cocaine related fake cure/treatment. If you follow the link in the tweet, it also shows a clearly funny image of Elmo snorting cocaine signalling that this tweet should be marked as sarcasm/satire.

9. True Public Health Response

A tweet shall be classified as true public health response if it is a statement about the public health response (eg. changes to essential services, location of testing, pending lockdown, etc.), and it *links to a mainstream news source or official government website* through which the statement can be verified.

Examples:

Tweet	Justification
<i>"Ontario and Quebec designate alcohol producers and retailers as essential services during current COVID-19 crisis... https://t.co/EjoBZMDUy2"</i>	This tweet should be marked as a true public health response as it links out to the official Quebec government website.
<i>"Centers for Disease Control (CDC) and Prevention webpage for CORONAVIRUS (COVID-19) https://t.co/6QueBAGPYL #KYSPIN... https://t.co/M4ovNeWhNz"</i>	This tweet should be marked as a true public health response as it links out to the CDC website on Coronavirus.
<i>"Kudos Unilever 'Free soap, sanitiser, bleach and food to the value of 100 million' '500 million of cash flow relief to support livelihoods' 'We will cover our employees, contractors and others who we manage or who work on our sites' https://t.co/cwPsNIVoXF #coronavirus https://t.co/sZHUR1uHU4"</i>	This tweet should be marked as a true public health response as the statement comes from Unilever's public health response for its customers, and stakeholders.

10. False Public Health Response

A tweet shall be classified as false public health response if it makes a claim about the public health response (eg. changes to essential services, location of testing, pending lockdown, etc.), but the claim *cannot be verified by a credible news source*.

Examples:

Tweet	Justification
<p><i>“Russia presents Covid-19 TREATMENT based on anti-malaria drug https://t.co/D8mTTm6g3n”</i></p>	<p>This tweet should be marked as a false public health response as it cannot be verified by the link provided that directs to a suspicious Russian news site.</p>
<p><i>“Italy allows malaria and HIV drugs for coronavirus treatment https://t.co/dqe91DgPv5 https://t.co/EoeURlleUX”</i></p>	<p>This tweet should be marked as a false public health response as it cannot be verified by the link provided that directs to a suspicious Russian news site.</p>

11. Politics

A tweet shall be classified as politics if the tweet *mentions a political individual, institution, or government organization (eg. Congress, Democratic or Republican party)*, and any of the following conditions are met:

1. The tweet *implicitly comments* on actions taken by the political actor.
2. The tweet *provides commentary* on actions taken by the political actor.

Examples:

Tweet	Justification
<p><i>“Trump kept saying it was basically pretty much a cure’: Woman whose husband died after ingesting chloroquine warns the public not to ‘believe anything that the president says’ https://t.co/hWo6Zc4aOw”</i></p>	<p>This tweet should be marked as politics, since it mentions a political actor (Trump) and is implicitly commenting on that actor’s statements.</p>
<p><i>“Biden on Coronavirus: ‘We Have to Take Care of the Cure – That Will Make the Problem Worse No Matter What’ https://t.co/Sn0CxREPJU”</i></p>	<p>This tweet should be marked as politics, since it mentions a political actor (Biden) and provides commentary on his action.</p>
<p><i>“Is Nancy Pelosi serious? Covid-19 bill has \$300 million for Sesame Street & National Endowment of Arts? An untold... https://t.co/AUNx3SIEkl”</i></p>	<p>This tweet should be marked as politics, since it mentions a political actor (Nancy Pelosi) and responds to an action taken by her (incorporated funding for these groups in the COVID-19 bill).</p>
<p><i>“@realDonaldTrump @nytimes #Trump defunded & eliminated the #Pandemic Research & Prevention Department. #Coronavirus... https://t.co/F5PZ6quYd1”</i></p>	<p>This tweet should be marked as politics, since it mentions a political actor (Trump) and responds to an action taken by him (defunded Pandemic research).</p>
<p><i>“@CNN Now remember when Trump supporters saying the best way to get rid of the #coronavirus is to drink bleach.”</i></p>	<p>This tweet should be marked as politics, since it mentions a political actor (Trump) and responds to an action taken by his supporters.</p>
<p><i>“HAPPENING NOW: Negotiations in Congress on #coronavirus relief & prevention. All families regardless of immigratio... https://t.co/IC80TnUj1r.”</i></p>	<p>This tweet should be marked as politics, since it mentions a political actor (Congress) in relation to COVID-19.</p>
<p><i>“Nailed it! ? God why aren’t Republicans praying for a cure for .the #Coronavirus rather than sacrificing grandpare... https://t.co/njYBhofYYi.”</i></p>	<p>This tweet should be marked as politics, since it mentions a political party (Republican) and its supporters in relation to COVID-19.</p>
<p><i>“@Brent68189672 @roddregg66 @theOriginalOWL @KurusuS @RudyGiuliani Trump never said to take fish tank cleaner to remove your COVID infection. He said the drug for malaria treatment offers hope. If you think I’m stupid you must also think that Cuomo is stupid for trialing it on New Yorkers. https://t.co/6wNZiTOBM4”</i></p>	<p>This tweet can be both politics or fake treatment, but it should be marked as politics, since the main theme of the tweet is Trump’s statement which is what is being disputed rather than the malaria drug itself.</p>

12. Ambiguous/Difficult to Classify

A tweet shall be classified as ambiguous if the stance of the author is not clear, and the post can potentially fall into either of the contrasting categories (eg. true treatment vs. false treatment, or true prevention vs. false prevention).

Examples:

Tweet	Justification
<p><i>“Is it true that the tropics insulates us from covid 19? Is it true garlic is the magic bullet? Who are most vulnerable who are less? What best first aids? What are the numbers of first responders to call? Where do you go to report suspected cases? All these are not clear”</i></p>	<p>This tweet shall be classified as ambiguous as the author is asking a question on the validity of different fake treatments and fake preventions, and the stance of the author is not clear.</p>
<p><i>“@nevadazmom @Meadmommy @RudyGiuliani Lady our entire country is shut down. There are very good medical reasons from Medical professionals to believe that hydroxychloroquine or Z-pack combo could save thousands of lives and end a looming depression that could kill millions. Why isn't this the most important thing?”</i></p>	<p>This tweet shall be classified as ambiguous as the stance of the author is not clear.</p>

13. Commercial Activity or Promotion

A tweet shall be classified as commercial activity or promotion if it includes a company advertising or selling coronavirus-related protective and preventative gear (eg. hand sanitizers, face masks, cleaners).

Examples:

Tweet	Justification
<p><i>“Fight Coronavirus, disinfect your home with hypo bleach...#HypoFightCoronaVirus .#CoronaVirusUpdate .#hypoGoWipeo https://t.co/IMvCrQ9Klz”</i></p>	<p>This tweet shall be classified as commercial activity or promotion as it comes from a cleaning supplies company and is promoting the purchase of their product.</p>
<p><i>“ARE YOU IN NEED OF COVID-19 CORONAVIRUS CDC..SUPPLIES ? WE SELL IN BULK SANITIZERS MASKS GLOVES..N95 BLEACH TISSUE... https://t.co/k9GAI1iD5D”</i></p>	<p>This tweet shall be classified as commercial activity or promotion as it comes from a (probable) bot account linking to a suspicious selling website.</p>

14. Emergency Response

A tweet shall be classified in this category if it mentions a viable emergency response (eg. changes in government funding for education programs, links to mental health resource).

Examples:

Tweet	Justification
<p><i>“These days can be difficult.. ?? asking for help is brave. ..Suicide Prevention.800-273-8255..Substance Abuse/Menta. . . https://t.co/OiQPPjQBLL.”</i></p>	<p>This tweet should be coded under this category as it links out to advice on mental health during the pandemic.</p>

15. News

A tweet shall be classified as news if it cannot be classified in any of the other categories, and it quotes a news story and links to a news site.

Note: If the theme of the news story is about any of the above categories, it should be classified under that category. For example, if the news story is about debunking myths related to COVID-19 or a person dying of a fake cure, that should be classified as Correction/Calling Out. Similarly, if the news story is about panic buying, it should be classified as panic buying.

Examples:

Tweet	Justification
<p><i>“Modern planning and civil engineering were born out of the mid-19th century development of sanitation in response to the spread of malaria and cholera in cities. Digital infrastructure might be the sanitation of our time.”</i> https://t.co/561HN98RrP</p>	<p>This tweet should be coded under news category as it talks about the role of urban planning on handling pandemics, and directly quotes the CityLab’s article on this topic.</p>
<p><i>“10 new Utah #coronavirus cases reported tonight—nine in Salt Lake County—bringing our total to 19. Stay home, people!”</i> https://t.co/Nvn4FidE0E</p>	<p>This tweet should be coded under news category as it quotes the Utah government site reporting the number of coronavirus cases in Salt Lake County.</p>

16. Panic Buying

A tweet shall be classified in this category if it mentions or comments on panic buying or its consequences in the context of COVID-19. A tweet shall also be classified in this category if it quotes a news site/story that talks about panic buying.

Examples:

Tweet	Justification
<p><i>“Found two bottles of bleach at @Target yesterday. I’ve never been happier then finding bottles of bleach before. #thelittlethings #COVID-19 #coronavirus”</i></p>	<p>This tweet should be coded under this category as it comments on the shortage of bleach caused by panic buying</p>
<p><i>“No milk, no bleach: Americans awake to coronavirus panic buying”</i> https://t.co/LKDBkZiIVg</p>	<p>This tweet should be coded under this category as it comments on the shortage of bleach caused by panic buying</p>
<p><i>“Toilet paper, the surprise coin of the realm of the coronavirus outbreak, was gone from aisle 3. Most laundry detergent, bleach and cleanser were gone from aisle 5.”</i> https://t.co/X3znsymeEb</p>	<p>This tweet should be coded under this category as it comments on the shortage of bleach caused by panic buying</p>

4 Additional Notes

1. If it is not clear whether a certain object is mentioned within the context of a treatment, prevention or cure, but is essentially false, it should be classified as a false fact or prevention. For example, essential oils have been mentioned as a “cure” to COVID-19, as well as “prevention”. If the tweet does not explicitly mention if it is a cure or prevention, it should be classified as a “false fact or prevention”.
2. If a tweet falls into more than one category, try to infer the theme of the tweet. For example, the tweet: *“Trump never said to take fish tank cleaner to remove your COVID infection. He said the drug for malaria treatment offers hope. If you think I’m stupid you must also think that Cuomo is stupid for trialing it on New Yorkers.”* can be classified as fake treatment or politics, but it should be marked as politics, since the main theme of the tweet is Trump’s statement which is what is being disputed rather than the malaria drug itself.

References

1. Memon, S.A., Carley, K.M.: Characterizing covid-19 misinformation communities using a novel twitter dataset. arXiv preprint arXiv:2008.00791 (2020)