



# Nexalogy China COVID-19 Social Media Disinformation Reporting

## *English Twitter Chinese Narratives On COVID-19*

By: Marshal Gunter, CEO Nexalogy

Akiva Bacovcin, Machine-Learning Expert Nexalogy

Zachary P Devereaux; Director of Public Sector Solutions Nexalogy

### Abstract:

*Nexalogy examined millions of social media documents over the last month tracking Chinese involvement in the online debate surrounding the COVID-19 coronavirus. Nexalogy found significant attempts by both Chinese authorities and news agencies to manipulate the media and shift the blame for the COVID-19 outbreak to the United States. Additional attempts at media manipulation and narrative shaping included attempts to frame dialogue from US President Trump as racist and show the Trump administration as an impediment to the worldwide recovery from the pandemic while framing Chinese President Xi as a strong leader on the world stage.*

As early as January, Russian disinformation related to bioweapons claims surfaced, but it was not until mid-March that China began to promote this claim, which would also be taken up by accounts from Iran. Despite a handful of tweets from official Chinese sources there is no large scale effort by China to propagate the bioweapon conspiracy theory.

There is strong division concerning whether the term “Chinese virus” is racist on English Twitter. China has attempted to bolster the “is racist” side but have gathered no traction. This is a primarily Western debate.

## Table of Contents

<b>Research Questions</b>	<b>3</b>
<b>RQ1: When did the Chinese narrative shift of the US as the source of COVID-19 start to happen and become significant?</b>	<b>4</b>
Summary	4
SQ1: When did official Chinese sources take up the message on English twitter?	4
Figure 1 - Timeline of tweets in the US-origin conspiracy discussion	5
SQ3: Is there sustained Chinese campaigning on this or did they mention it in passing and then drop it?	5
Figure 2 - Example of peripheral introduction of the US-origin conspiracy by Chinese embassies	6
Figure 3 - Interaction network for the US-origin conspiracy discussion	8
SQ3: What is the earliest report of the US-bioweapon origin theory?	8
SQ4: Is there evidence for earlier Chinese discussion of the US-origin bioweapon theory?	9
Figure 4 - Example tweets showing early mentions of the US-origin conspiracy from Japanese TV and the Chinese communist party	10
<b>RQ2: What is the state of bioweapon-related US origin conspiracy theories?</b>	<b>10</b>
Summary	10
SQ1: Are there different communities in the discussion surrounding the US-origin bioweapon theory?	10
Figure 5 - Network map showing three different communities of publishers in discussion of US-origin conspiracy	10
SQ2: What differences are there between communities in the discussion surrounding the US-origin bioweapon theory?	10
Figure 6 - The 15 most prolific publishers in the discussion of the US-origin conspiracy	11
SQ3: How prevalent is the support of US-origin bioweapon theories on English twitter?	12
Graph 1 : percentage of US-origin pro and con	12
Figure 7 - Top retweets in dataset discussing US-origin conspiracy theory	13
SQ4: How does discussion of US-origin bioweapon theories on English twitter compare to overall COVID-19 discussion?	13

<b>RQ3: Are the Chinese using accusations of racism to deflect criticism from the US over its COVID-19 handling?</b>	<b>14</b>
Summary	14
SQ1: Are accusations of racism occurring in the discussion of COVID-19?	14
Figure 8 - Discussions of “chinese virus” terminology as racist over time.	15
Figure 9 - Examples of tweets discussing “chinese virus” as racist terminology.	15
SQ2: Is the racism claim for “chinese virus” more prevalent than its denial or vis-a-versa?	15
Figure 10 - Top ten most retweeted tweets containing “chinese virus” from March 19th to March 21st	16
Figure 11 - Top ten most retweeted tweets containing “chinese virus” from March 23rd to March 26th	17
Figure 12 - Top ten most retweeted tweets containing “chinese virus” on March 30th	18
SQ3: Is there Chinese instigation of accusations of racism on the part of the US?	18
Figure 13 - Most frequently retweeted accounts in the discussion of “chinese virus” racism	19
Figure 14 - Frequency of publishers on Government Client chinese account list	20
Figure 15 - Most frequent retweets in a subset of “chinese virus” racism data involving interaction with Chinese officials identified by Government Client	21
Figure 16 - Most frequent hashtags in “Chinese virus” racism dataset involving interaction with Chinese officials identified by Government Client	22
Figure 17 - Example tweets from a subset of “chinese virus” racism data involving interaction with Chinese officials identified by Government Client	23
Figure 18 - Interaction network for all of the “chinese virus” and “racism” discussion	24
<b>RQ4: What was the scale and tone of China’s “people’s war and popular victory” against COVID-19?</b>	<b>25</b>
Summary	25
SQ1: What is the nature of early coverage (pre-March 10th) of the COVID-19 battle in Chinese news outlets?	25
Figure 19 - Top 15 most frequent words in martial tweets from Chinese news before March 10th	26
Figure 20 - Example of tweets discussing Wuhan before March 10th	27
Figure 21 - Automated summaries of tweets from Chinese news outlets using martial terminology before March 10th	28
SQ2: What is the nature of coverage from after March 10th of the COVID-19 battle in Chinese news outlets?	28
Figure 22 - Top 15 most frequent words in martial tweets from Chinese news before March 10th	29
Figure 23 - Example of tweets discussing Wuhan after March 10th	30
Figure 24 - Automated summaries of tweets from Chinese news outlets using martial terminology after March 10th	31
SQ3: How much of the messaging on COVID-19 can be attributed to “people’s war and popular victory” in Chinese news outlets?	31
Figure 25 - Automated summaries of tweets from Chinese news outlets using martial terminology	32
Figure 26 - Automated summaries of tweets from Chinese news outlets avoiding martial terminology	33

SQ4: How are Xi and Trump portrayed in Chinese news outlets?	33
Figure 27 - Top 15 most frequent hashtags and top 15 most frequent words in Chinese news when discussing President X	34
Figure 28 - Example tweets from Chinese news when discussing President Xi	35
Figure 29 - Automated summaries from Chinese news when discussing President Trump or Vice-President Pence	36
Figure 30 - Example tweets from Chinese news when discussing President Trump or Vice-President Pence	37

<b>Contact Information</b>	<b>38</b>
----------------------------	-----------

---

## Research Questions

RQ1: When did the Chinese narrative shift of the US as the source of COVID-19 start to happen and become significant?

### Summary

The narrative shift of the conspiracy on English Twitter begins with a tweet on March 12th by Chinese official, Lijian Zhao, pushing a link to a pro-conspiracy article in globalresearch.ca ([see SQ1](#)), a site that previous NATO research has linked to Russian propaganda efforts. As an act of information warfare promoting plausible deniability by using peripheral sources, Lijian Zhao's tweet is retweeted on March 12th by a number of Chinese embassies around the world. This appears to be more of a put it out there and see where it goes type of operation than a sustained Chinese government push on English Twitter ([see SQ2](#)).

While the main conspiracy discussion starts on March 12th, starting as early as January, there are Russian attempts to link COVID-19 to US bioweapon programs ([see SQ3](#)). Starting in late February, a Japanese TV news report questioning Chinese origin for the virus leads Chinese social media to link the rise of the virus to military games in Wuhan. These internal discussions receive official government support within China ([see SQ4](#)).

[SQ1: When did official Chinese sources take up the message on English twitter?](#)

March 12th is when Lijian Zhao initially tweeted a link to the article by globalresearch.ca. This tweet seems to have been the main factor that caused the discussion of the conspiracy to surge. His tweet merely brings the article to the attention of Twitter as important, without directly endorsing any of its specific conclusions.

[Fig. 1](#) shows a timeline for a dataset of tweets gathered using keywords to capture the idea that the US was responsible for COVID-19 from February 20th to March 30th. It shows that March 12th is when the discourse really takes off.

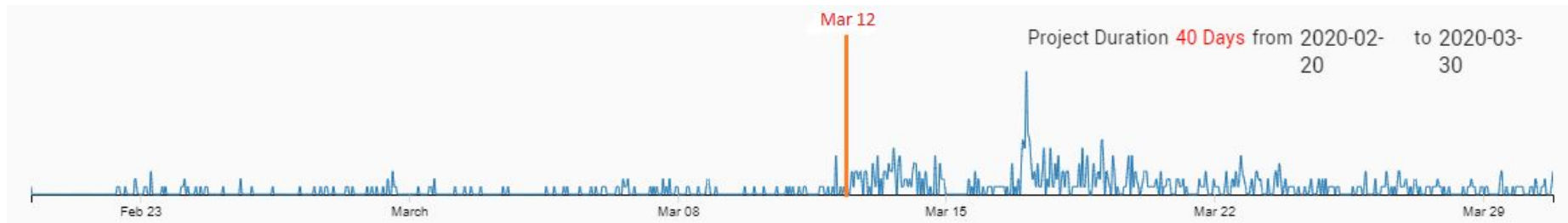


Figure 1 - Timeline of tweets in the US-origin conspiracy discussion

SQ3: Is there sustained Chinese campaigning on this or did they mention it in passing and then drop it?

An attempt at plausible deniability is also seen when other peripheral Chinese officials are regurgitating conspiratorial claims made outside of China. As seen in [Fig. 2](#), the Chinese embassies in Australia and South Africa were involved in pushing doubt about the Chinese origin of the virus.



Figure 2 - Example of peripheral introduction of the US-origin conspiracy by Chinese embassies

There does not seem to be a long-term Chinese involvement in pushing the conspiracy narrative. Across all of the datasets we collected discussing the conspiracy, there are only nine tweets from official government accounts. There are two original tweets - [the tweet by Lijian Zhao sharing the globalresearch.ca article](#) and a tweet by the Chinese Consulate-General in Johannesburg sharing the same article. The remaining six tweets are retweets of Lijian Zhao's tweet, by the Chinese Ambassador to Botswana, the Chinese Ambassador to Egypt, the Chinese Embassy in Manila, the Chinese Embassy in Panama, the Press Officer of the Chinese Embassy in Pakistan, the Chinese Ambassador to Maldives, and the Chinese Ambassador to Egypt. All nine tweets were made on March 12th. There is no further evidence of official Chinese presence in the discussion.

That said, this small amount of effort does seem to have been effective. There has been a large dissemination of the information provided by the Chinese as seen in [RQ2-SQ3](#).

[Fig. 3](#) shows in network form the interactions between the most prolific publishers and most mentioned people in the US-origin conspiracy discussion. There are no highly symmetrical networks typical of BOT hordes, meaning there is no evidence for covert information warfare by the Chinese or other malicious actors. Instead, the network shows a number of natural communities, which is typical for a divisive topic like a conspiracy theory.



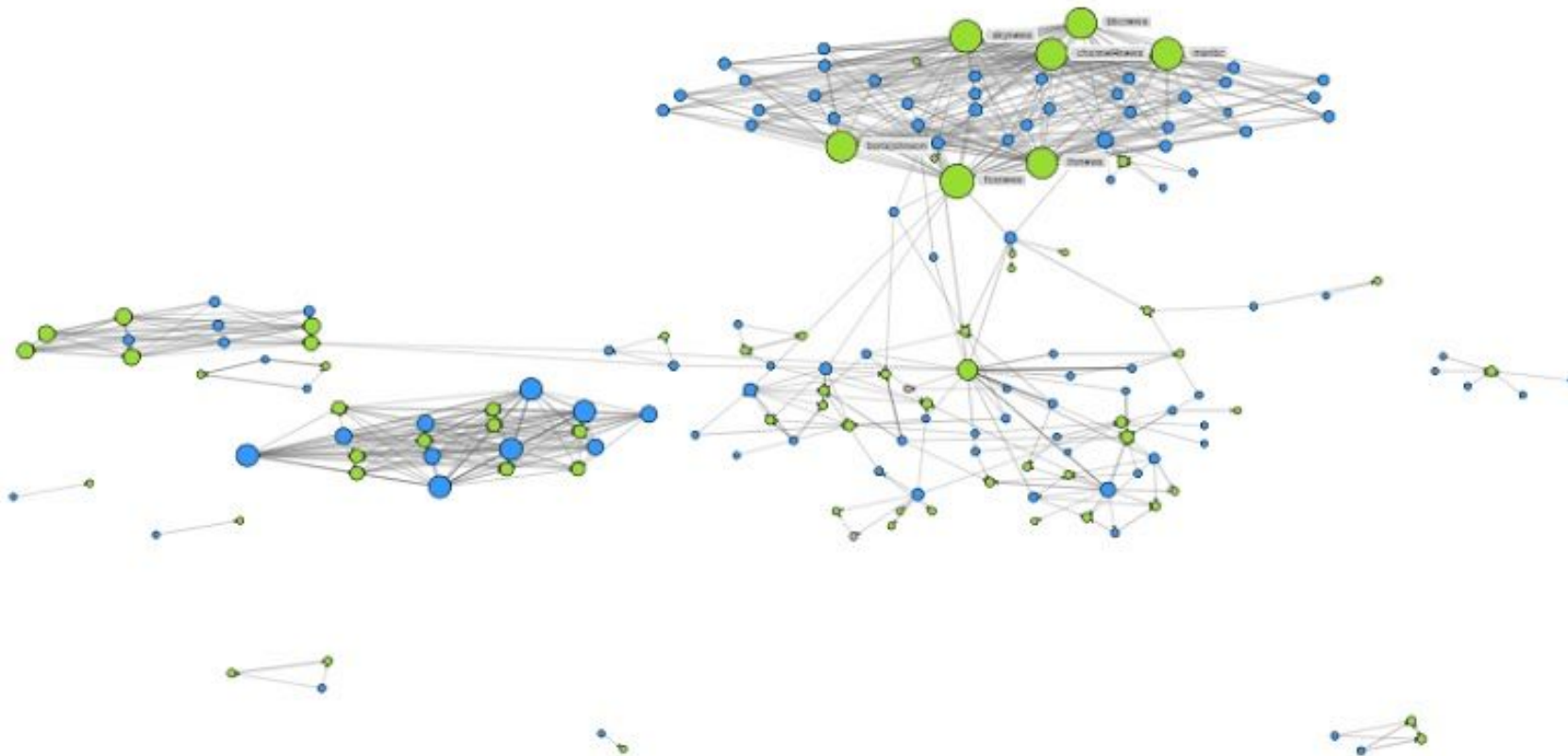


Figure 3 - Interaction network for the US-origin conspiracy discussion

SQ3: What is the earliest report of the US-bioweapon origin theory?

There are links in late-February to a Foreign Policy article that highlights Russian conspiracy theories pushing for a US origin to the virus

(<https://foreignpolicy.com/2020/02/14/russia-blame-america-coronavirus-conspiracy-theories-disinformation/>).

#### SQ4: Is there evidence for earlier Chinese discussion of the US-origin bioweapon theory?

Popular Chinese uptake occurs after a late-February Japanese TV news show questions the Chinese origin for the disease and this speculation is promoted within China by official government sources (Fig. 4). [This article](#) from gloabaltimes summarises the Japanese TV report.



Figure 4 - Example tweets showing early mentions of the US-origin conspiracy from Japanese TV and the Chinese communist party

## RQ2: What is the state of bioweapon-related US origin conspiracy theories?

### Summary

Within discussions of the COVID-19 conspiracy, there is substantial disagreement between pro-American voices calling it propaganda and a conspiracy theory and anti-American voices that push the conspiracy as the truth ([see SQ1](#)). In particular, the Iranian community on Twitter made a concerted effort to push the hashtags #covidfromamerica and its Persian translation [کرونا\\_از\\_امریکا](#) ([see SQ2](#)). The anti-American/pro-conspiracy side of the discussion shows greater volume than the pro-American/anti-conspiracy side pointing to mainstream news sources ([see SQ3](#)). Ultimately, discussion concerning the conspiracy theory that the US is the origin of COVID-19 forms up to 1% of the global discussion concerning COVID-19, which, given the scale of COVID-19 discussions, is significant ([see SQ4](#)).

### SQ1: Are there different communities in the discussion surrounding the US-origin bioweapon theory?

There are both anti-American and pro-American discussions occurring in English concerning the US-origin conspiracy. These narratives are occurring in essentially isolated communities as can be seen in [Fig. 5](#).

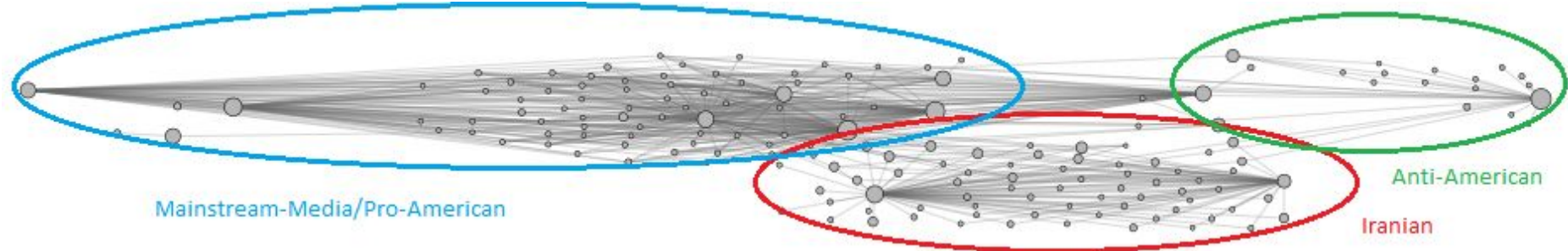


Figure 5 - Network map showing three different communities of publishers in discussion of US-origin conspiracy

### SQ2: What differences are there between communities in the discussion surrounding the US-origin bioweapon theory?

Note that one of the main anti-American communities is Iranian. This dataset shows that the main anti-American uptake of the conspiracy in English on twitter are the Iranians. This can also be seen in [Fig. 6](#), where the majority of the top 15 publishers in the conspiracy discussion have Persian/Iranian usernames. Two of the top 5 accounts (rb\_secondary and antizionism14) have been suspended by Twitter.

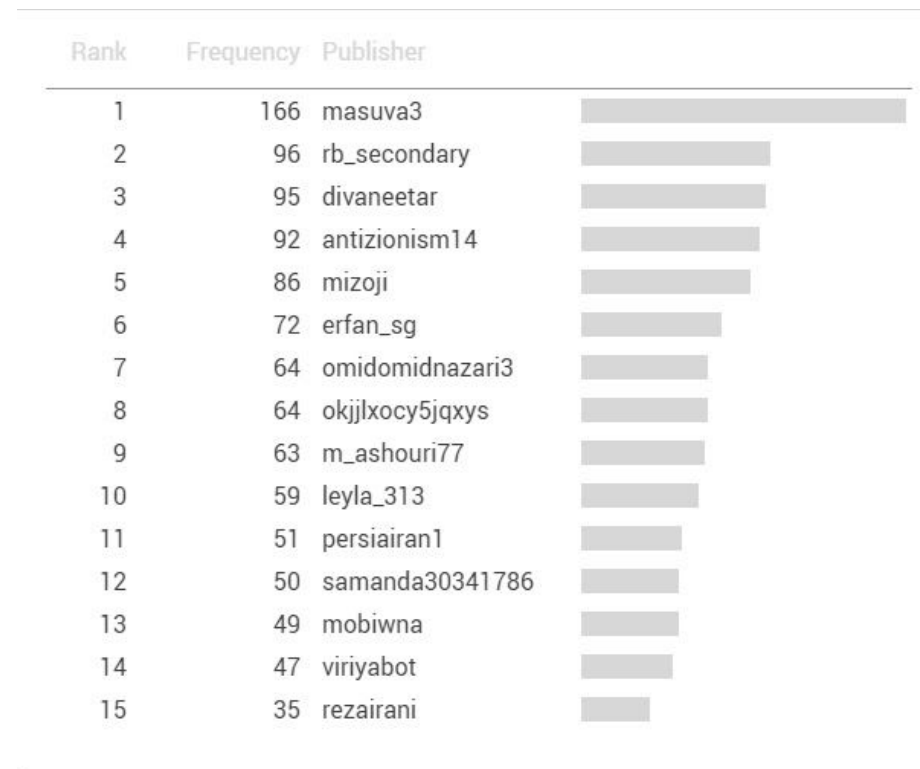
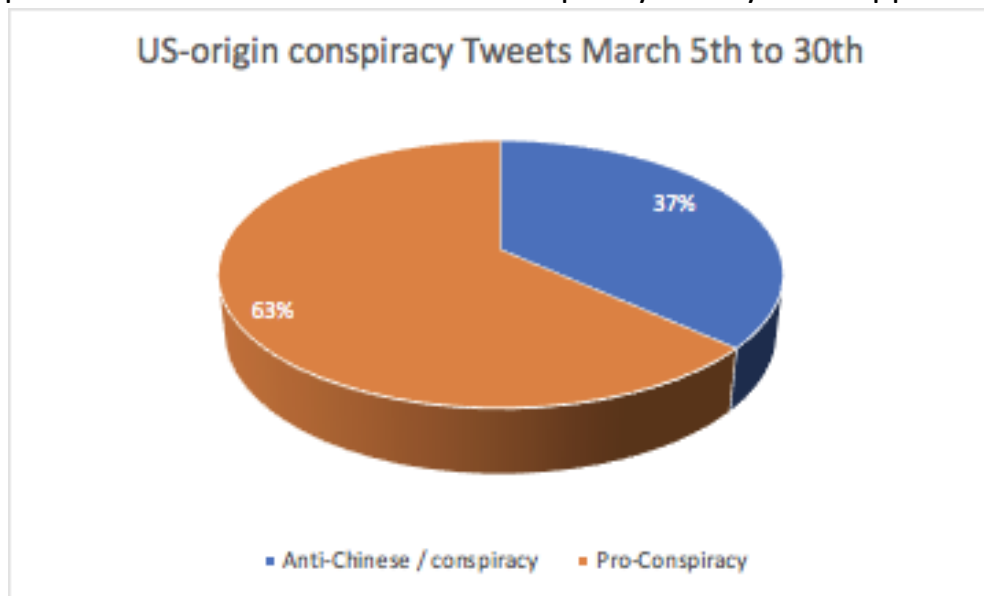


Figure 6 - The 15 most prolific publishers in the discussion of the US-origin conspiracy

### SQ3: How prevalent is the support of US-origin bioweapon theories on English twitter?

A dataset constructed of tweets linking to articles discussing the conspiracy as well as keywords designed to find tweets that mention the US-origin conspiracy found 38,756 tweets from March 5th through March 30th. Of these 14,222 mention “conspiracy”, “propaganda”, “#wuhanvirus” or “#chicoms” all of which are indicators of anti-Chinese sentiment or skepticism towards the conspiracy. This leaves as many as 24,534 tweets that are pro-conspiracy over the course of March. There are 10,153 tweets that use the word “evidence” when discussing the conspiracy theory. This means that 63 percent of the discussion of the conspiracy theory is in support of the claim ([see graph 1](#)).



Graph 1 : percentage of US-origin pro and con

The size of this uptake and the Chinese origin of the conspiracy can also be seen when looking at the 10 most retweeted tweets in the dataset. This provides additional evidence for substantial uptake of the conspiracy theory. As seen in [Fig. 7](#),

the most retweeted tweet is by a Chinese government official, @zlj517. This tweet has more retweets than the next 6 highest tweets combined.

Count	Tweet
7440	<a href="#">RT @zlj517: this article is very much important to each and every one of us. please read and retweet it. covid-19: further evidence that the vir...</a>
1609	<a href="#">RT @foreignpolicy: the chinese propaganda machine is casting blame on the united states for the coronavirus, fp's @beijingpalmer writes. htt...</a>
1368	<a href="#">RT @marcorubio: why is #china's communist party encouraging conspiracy theories blaming u.s. for #covid_19? 1. to dampen internal discon...</a>
1304	<a href="#">RT @nytimes: china is pushing an unfounded conspiracy theory about the origins of the coronavirus: that americans introduced it in wuhan la...</a>
1088	<a href="#">RT @gopleader: the division that democrats are sowing is exactly what the authoritarian regime of china wants. don't fall for it. https://wapo...</a>
954	<a href="#">RT @repdlamborn: the chinese propaganda machine is at it again. their campaign of disinformation is startling, and their communist govern...</a>
949	<a href="#">RT @tedcruz: highly troubling propaganda that would make orwell blush. chinese state news agency xinhua editorial declares, "we should sa...</a>
921	<a href="#">RT @cathymcmorris: china won't waste any chance to smear america, freedom, &amp; all that we stand for. here's a look at their propaganda mac...</a>
918	<a href="#">RT @repjimbanks: extremely alarming to learn that the chinese government is stoking conspiracy theories that the coronavirus originated in t...</a>
809	<a href="#">RT @sehof: the chinese embassy in australia now emails journalists telling them that sharing the fact that covid-19 originated in china is 'poli...</a>

Figure 7 - Top retweets in dataset discussing US-origin conspiracy theory

**SQ4: How does discussion of US-origin bioweapon theories on English twitter compare to overall COVID-19 discussion?**

At the height of the discussion of the conspiracy theory, up to 1% of the COVID-19 conversation was taken up by conspiracy discussion. Our data collection indicates that there are at least a million tweets a day mentioning COVID-19. When mainstream news sources were reporting on Chinese claims that the US was the origin of the virus, there were about 10,000 to 20,000 tweets a day on the conspiracy.

### RQ3: Are the Chinese using accusations of racism to deflect criticism from the US over its COVID-19 handling?

#### Summary

There is extensive discussion of the term “chinese virus” on Twitter, especially after March 19th ([see SQ1](#)). The discussion over whether the term is racist is initially hotly contested with the not-racist side being more prevalent. The term continues to be used to refer to COVID-19 while the discussion of racism becomes less prevalent over time ([see SQ2](#)).

The position that the term is racist is also taken by official Chinese accounts in a very small number of tweets. Ultimately, there is very little production by official Chinese accounts on this topic and the interaction on the topic with official Chinese accounts are overwhelmingly attacks against China ([SQ 3](#)).

In conclusion, racist claims for the term “chinese virus” are home grown to Western Twitter communities. The Chinese government supports this native viewpoint but plays no role in pushing the narrative and is mostly ignored or attacked in the discussion.

#### SQ1: Are accusations of racism occurring in the discussion of COVID-19?

There are 284,748 tweets that mention both racism and the term “chinese virus” or “chinesevirus” from March 9th to March 30th. In 5,963 of the tweets with claims of racism, there are associated claims that the use of such terms leads to an increase of violence against Asians (see tweets in [Fig. 9](#) for examples). As can be seen in [Fig. 8](#), there is a sharp rise in the conversation that starts on March 19th and then tapers off over the course of March.

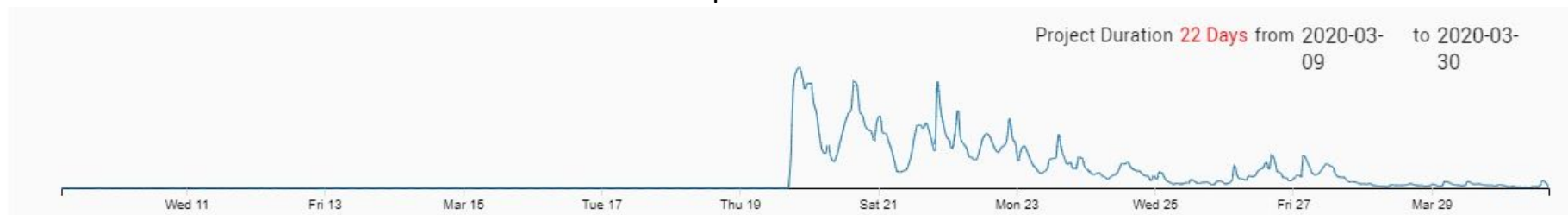


Figure 8 - Discussions of “chinese virus” terminology as racist over time.

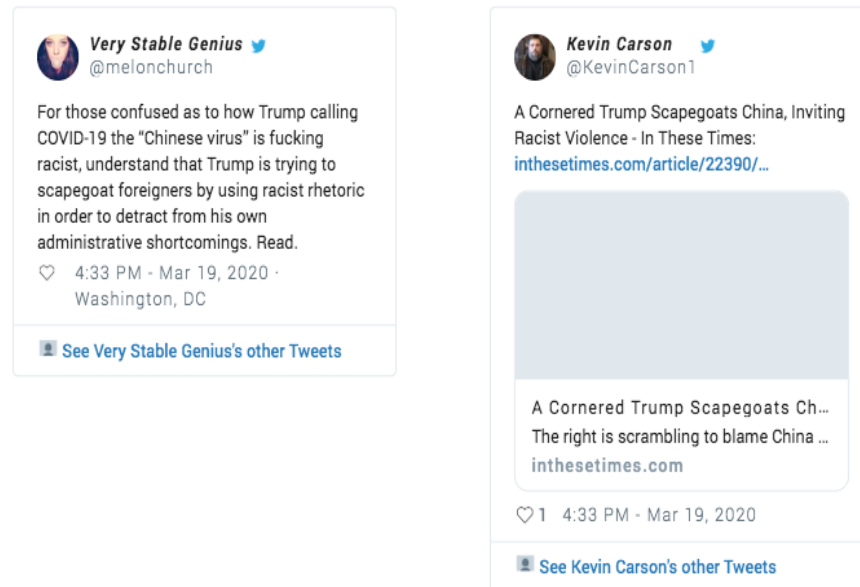


Figure 9 - Examples of tweets discussing “chinese virus” as racist terminology.

**SQ2: Is the racism claim for “chinese virus” more prevalent than its denial or vis-a-versa?**

In the overall discussion of the term “chinese virus” there is debate, but the denial of racism is more prevalent than the claim of racism. Over time, the term continues to be used to refer to the disease, but the claims of racism start to die down. This can be seen in Figs. [10](#), [11](#), and [12](#) which show the top retweeted terms during three periods between March 19th and March 30th. In [Fig. 10](#), while the top retweet claims “chinese virus” is racist, eight of the remaining nine are either neutral uses (underlined in blue) or defenses of the use of the term (underlined in red).



Count	Tweet
23987	RT @jabinbotsford: close up of president @realdonaldtrump notes is seen where he crossed out "corona" and replaced it with "chinese" virus as he speaks with his coronavirus task force today at the white...
15928	<u>RT @andrewpollackfl: where did the chinese virus originate? china who silenced whistleblowers? china who tried to cover it up? china who lied to to world about the outbreak? china who refused help to co...</u>
15308	<u>RT @charliekirk11: shameful: while richard burr was receiving daily briefings on the chinese virus and reassuring americans that the government was well equipped to handle the virus ...he was also sellin...</u>
9684	<u>RT @prisonplanet: good morning. our thoughts continue to be with victims of the chinese coronavirus, which started in china, was covered up for over a month by the chinese government, and spread arou...</u>
7981	<u>RT @sandyschneider: serious question... can anyone explain how 'chinese virus' is racist but 'russian collusion' is not?</u>
7854	<u>RT @latiffani1: hey @alyssa_milano i'm calling it the chinese virus now call me a "racist piece of shit" to my face. i live in l.a.</u>
7169	<u>RT @w_terrence: exposing cnn! they called the coronavirus the chinese coronavirus back in january but they are calling president trump and all of us racist for saying chinese virus. **rt to show everyone t...</u>
6931	<u>RT @charliekirk11: bill de Blasio is a total joke he's been relentlessly attacking president trump in the midst of this chinese virus crisis but new reports show that he didn't even order supplies for the city to...</u>
4219	<u>RT @atensnut: it's rainy and quiet in my city with no cases of "chinese virus" yet. one case 60 miles north is the closest.....and the fact remains ... chrissy teigen is still a classless, trash-mouth, insignifica...</u>
3821	RT @jaypotato1: @realdonaldtrump you see this? two children and two adults were stabbed at sam's in midland, texas, bc ppl associate asians with the coronavirus. calling it the chinese virus encourages...

Figure 10 - Top ten most retweeted tweets containing "chinese virus" from March 19th to March 21st

In [Fig. 11](#), while the top retweet again claims "chinese virus" is racist, eight of the remaining nine are either neutral uses (underlined in blue) or defenses of the use of the term (underlined in red).

Count	Tweet
45055	<a href="#">RT @eugenegu: the h1n1 swine flu pandemic that infected up to 1.4 billion people and killed up to 575,000 originated in factory farmed pigs in the united states. yet nobody ever calls it the "american pig fl...</a>
20856	<a href="#">RT @charliekirk11: rand paul was just diagnosed with the deadly chinese virus and nancy pelosi's daughter. @sfpelosi tweeted: "rand paul's neighbor was right" in reference to the man that beat senator pa...</a>
18796	<a href="#">RT @realdonaldtrump: my friend (always there when i've needed him!), senator @randpaul, was just tested "positive" from the chinese virus. that is not good! he is strong and will get better. just spoke to h...</a>
13768	<a href="#">RT @charliekirk11: chinese virus death rates, per one million people, as of march, 19th: italy—49.3 iran—13.9 spain—13.7 netherlands—3.9 france—3.6 china—2.3 south korea—1.8 united kingdom—1.6 the ...</a>
10642	<a href="#">RT @w_terrence: i said this before but i think i need to say it again. president @realdonaldtrump has handled this chinese virus situation with dignity and care. a lesser man would have crumbled! raise you ...</a>
9891	<a href="#">RT @lisassmiley: no, it's not racist to call the coronavirus the "chinese virus" - and i'm chinese. in fact, as the ccp continues to deflect blame and spread conspiracy theories, that is exactly what we need to ...</a>
8034	<a href="#">RT @charliekirk11: democrat majority whip jim clyburn on the chinese virus stimulus bill: "this is a tremendous opportunity to restructure things to fit our vision" that's why they're delaying aid for small bu...</a>
6810	<a href="#">RT @realjameswoods: unfortunately #nancypelosi seems to have decided funding overseas abortions with taxpayers' dollars is more important than american lives. #wuhancoronavirus #chinesevirus #bo ...</a>
6582	<a href="#">RT @markharrisnyc: here are some things cuomo hasn't said during his press conference: --you're a terrible reporter --i take no responsibility --i give myself a 10 --here, drink this chemical people pour into ...</a>
5968	<a href="#">RT @kanchangupta: the criminality of @drtedros and @who in covering up severity of #chinesevirus outbreak in #wuhan china must not go unpunished. they led the world up the proverbial garden path. th...</a>

Figure 11 - Top ten most retweeted tweets containing “chinese virus” from March 23rd to March 26th

Finally, in [Fig. 12](#), all ten most retweeted tweets are neutral uses of the term (underlined in blue).

Count	Tweet
26081	<a href="#">RT @charliekirk11: donald trump donated his quarterly salary to fighting the chinese virus rt if pelosi, schumer, and everyone else in congress should donate their salaries to the effort as well!</a>
3509	<a href="#">RT @andrewpollackfl: when president @realdonaldtrump formed the chinese virus task force in january, nancy pelosi was passing out her impeachment pens. remember that.</a>
2711	<a href="#">RT @realkylemorris: twitter forces @ingrahamangle to delete post on chloroquine helping coronavirus patients <a href="https://www.breitbart.com/tech/2020/03/30/twitter-forces-laura-ingraham-to-remove-tweet...">https://www.breitbart.com/tech/2020/03/30/twitter-forces-laura-ingraham-to-remove-tweet...</a></a>
1964	<a href="#">RT @majorgauravarya: china continues to operate markets that sell bats, cats, frogs, dogs &amp; also exotic wildlife for consumption. only difference is that now there is a policeman who stops you from takin...</a>
1389	<a href="#">RT @indicresistence: hindu temples are donating money for pm's covid-19 fund. while islamic groups are spreading the chinese virus from tamil nadu to delhi. we are dealing with two pandemics. #nizamu...</a>
1126	<a href="#">RT @irupnd: shri.amitabh bachchan ji has arranged to provide food to 1500 to 2000 poor people daily till lockdown in mumbai. thank you so much @srbachchan sir #chinesevirus <a href="https://t.co/crrycmr51r">https://t.co/crrycmr51r</a></a>
978	<a href="#">RT @imac_too: 15% population is cornering efforts, time of 75% workforce deployed for fighting the #chinesevirus. don't allow durbaris, jehadis, chinese agents in media to hijack this fact</a>
948	<a href="#">RT @asharangappa : we're in the same process as with the ukraine scandal, where they are testing various "defenses" to see what sticks. first it was that the virus was a democratic hoax, then it was the "...</a>
790	<a href="#">RT @carolynn_june: yesterday i took a drive after calling the er @ coming in to get tested for the #chinesevirus. i have a chronic illness and have been sick since late nov 2019. being i have developed a cou...</a>
758	<a href="#">RT @reubing: nancy pelosi was exposed to a congresswoman who is presumed to have the chinese virus. nancy announced today that she will not take the test to see if she has the virus too. in other word...</a>

Figure 12 - Top ten most retweeted tweets containing “chinese virus” on March 30th

### SQ3: Is there Chinese instigation of accusations of racism on the part of the US?

There are only seven tweets in the dataset by Chinese government officials, all of which claim that the use of “chinese virus” is racist.

1. <https://twitter.com/zlj517/status/1242467229024653313>
2. <https://twitter.com/zlj517/status/1242796961083711488>
3. <https://twitter.com/leidbbdhfj/status/1240766091263082505>
4. <https://twitter.com/Chinaembmanila/status/1241556035438964736>
5. <https://twitter.com/WangXianfeng8/status/1242472465294487552>
6. <https://twitter.com/AmbLiaoLiqiang/status/1242543367717863426>
7. <https://twitter.com/zhaobaogang2011/status/1242567490422607872>

However, there is essentially no uptake of these messages as can be seen by the fact that Chinese accounts do not occur among the top 10 most retweeted accounts ([Fig. 13](#)).

Count	Tweeter
24019	@davidjharrisjr
13165	@sandyaschneider
10682	@w_terrence
10147	@lisassmiley
8571	@latiffani1
8173	@charliekirk11
6818	@unntv1
6511	@wallwallme
4829	@eugenegu
4426	@stephenking

Figure 13 - Most frequently retweeted accounts in the discussion of “chinese virus” racism

When we include a broader definition of Chinese account using a list of accounts provided by Government Client (see list in [Appendix A](#)), we find 18 tweets ([Fig. 14](#)).



Figure 14 - Frequency of publishers on Government Client chinese account list

Instead of support and retweets of the chinese official message, most interaction with Chinese officials is to attack China and argue against a racist interpretation of “chinese virus”. When the dataset on “chinese virus” is filtered to only include data by Chinese accounts provided by Government Client or mentioning Chinese officials, the overwhelming majority of the tweets are arguing that the use of the term “chinese virus” is not racist and/or attacking China. This can be seen in the list of the 10 most popular retweets ([Fig. 15](#)) all but one of which is anti-China. It can also be seen in the top 5 hashtags for a smaller dataset of tweets by or at Chinese accounts identified by Government Client ([Fig. 16](#)), which are all anti-China or explicit use of “chinesevirus” ([Fig. 17](#)).

Count	Tweet
8	RT @mrs_malindo: @xhnews the chinese virus is racist? are chinese racists too? china is not only responsible for this wuhan virus,,you lied about it to the world. i hope you are held accountable for causin...
7	RT @vk_doge: @xhnews wuhan virus is from wuhan china. so how is "chinese virus" racist? or lets call it "chinese communist party virus"? does it make it better? #communistvirus #chinaliedandpeopledied
6	RT @quin4trump: @xhnews lol. i hope you're trying to be funny. the first case occurred in wuhan, china. so it is rightfully to be referred to as the wuhan or chinese virus. all reasonable. not racist and thoug...
4	RT @d7cam: @xhnews you are calling him a racist to distract ppl from the fact that communist china tried to hide this from the public since nov! china is at fault! china allowed ppl to travel from that hot s...
2	RT @sayingjuust: @xhnews the chinese virus? it's a virus, it can't be the victim of racism. it can't be bargained with. it can't be reasoned with. it doesn't feel pity, or remorse, or fear and it absolutely will not...
2	RT @insisttillwin: @chenweihua @hawleymo absolutely, the science is that calling chinese virus is a racist, just like calling chinese food, peking duck and shanghai noodles. what kind if science is it?
1	RT @ichu100: @xhnews it's not racist...he is telling the facts. chinese virus came from china.
1	RT @medman84: @xhnews calling the chinese virus "racist" is the only distraction here. all of the blame falls on china.
1	RT @bvienna: @chenweihua @josepborrellf the virus came from china.from a lab or market in china,so i'ts a #chinesevirus or #madeinchina and not to say that it is a virus originated or created in china, tr...
1	RT @joerhio: #chinesevirus #americans @cacanational @realdonaldtrump #covid19 @pdchina @chinaembassyusa asian racism/violence is alive & always has been. was at @costco in n fl recently, older...

Figure 15 - Most frequent retweets in a subset of “chinese virus” racism data involving interaction with Chinese officials identified by Government Client

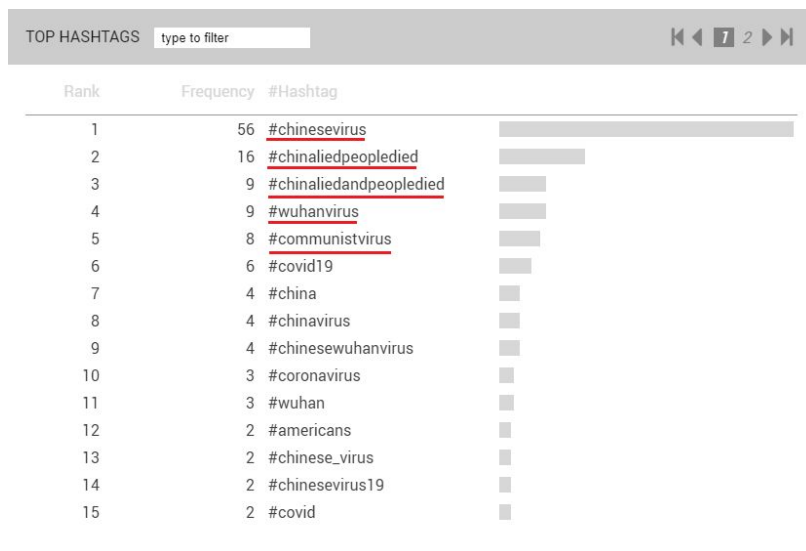


Figure 16 - Most frequent hashtags in “Chinese virus” racism dataset involving interaction with Chinese officials identified by Government Client



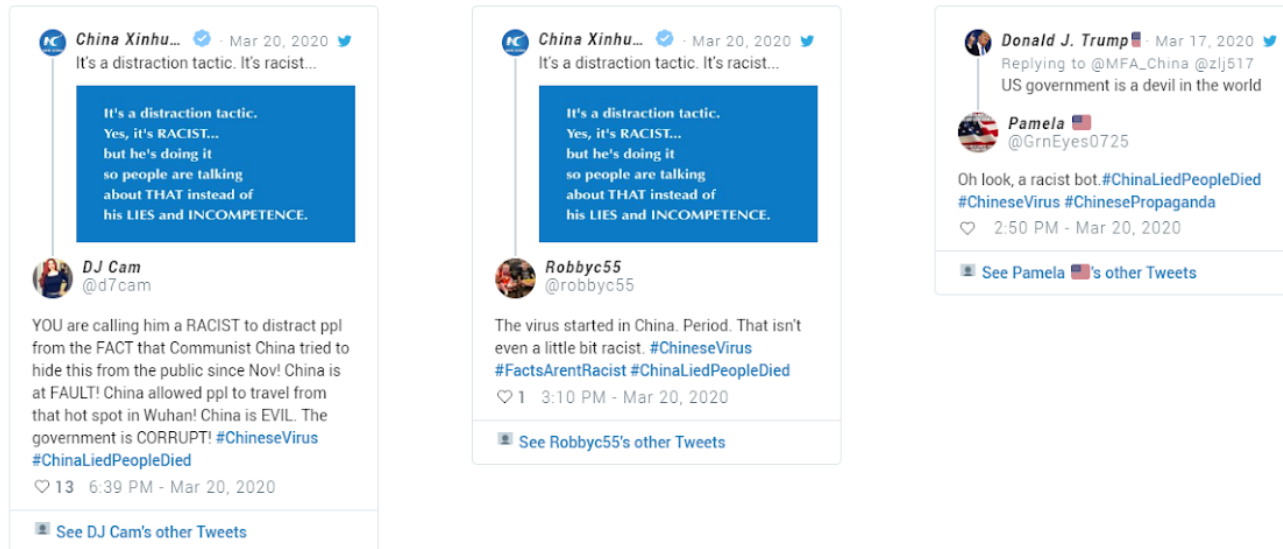


Figure 17 - Example tweets from a subset of “chinese virus” racism data involving interaction with Chinese officials identified by Government Client

Finally, [Fig. 18](#) shows the interaction network between the top publishers and mentioned in the full “chinese virus” racism discussion. There are none of the telltale symmetrical communities that would be indicative of BOT horde behaviour, but instead looks like a fairly natural set of disparate communities, which is expected for such a divisive topic.



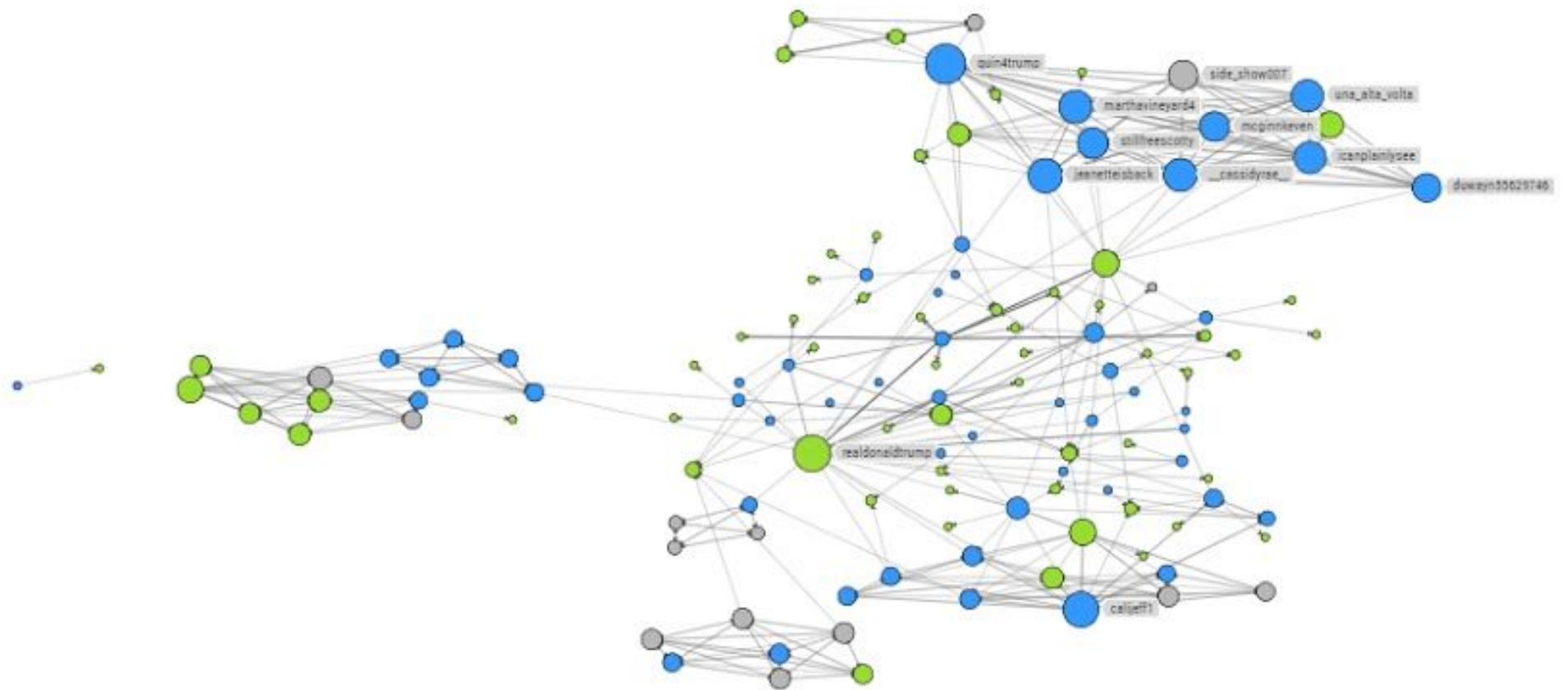


Figure 18 - Interaction network for all of the “chinese virus” and “racism” discussion

#### RQ4: What was the scale and tone of China's "people's war and popular victory" against COVID-19?

##### Summary

Depictions of women and human-interest themes, images, and documentaries focusing on the ongoing battle against COVID-19 in China define the coverage before March 10th ([see SQ1](#)), with coverage after that date shifting to internationalism and a representation of China having won the battle against COVID-19 in Wuhan ([see SQ2](#)).

Looking at the period from February 20th to March 30th, we find that China Xinhua News, CGTN, and CCTV+, three major Chinese international news outlets, produce between 40-90 tweets a day about COVID-19, which correspond to 40-90 news articles a day on COVID-19. While the volume of production on COVID-19 does not change over the course of March, the message conveyed by the articles does ([see SQ3](#)).

[SQ4](#) shows that throughout the period, US President Trump and Vice President Pence are covered with more skepticism and questioning than other world leaders, creating a juxtaposition of Xi Jinping's image as consistent, continuous, strong, and victorious, while all along showing leaders of other countries as working directly with Xi.

##### [SQ1: What is the nature of early coverage \(pre-March 10th\) of the COVID-19 battle in Chinese news outlets?](#)

When looking at tweets that use martial terminology before March 10th, we find that China is being described as on the frontline of the fight. [Fig. 19](#) shows that the battle is still being fought with words like "amid", "wuhan", and "volunteer" being among the top 10.

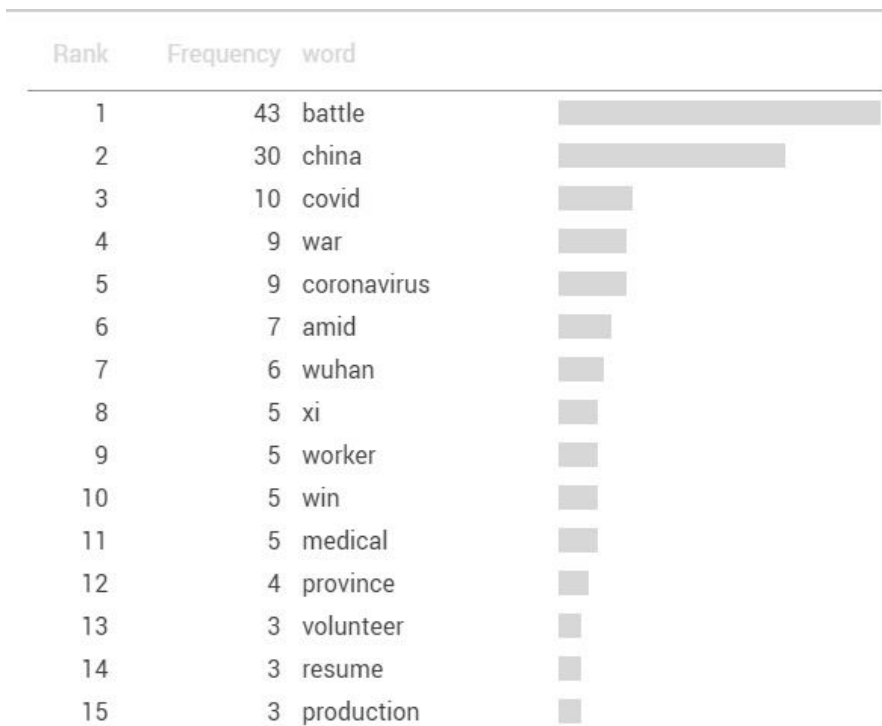


Figure 19 - Top 15 most frequent words in martial tweets from Chinese news before March 10th

When we look at tweets discussing Wuhan ([Fig. 20](#)), we find descriptions of a city in the midst of the battle and stories of foreign volunteers aiding in the fight.



Figure 20 - Example of tweets discussing Wuhan before March 10th

The automated summaries in [Fig. 21](#) also show that the martial imagery involves descriptions of China in the midst of the battle and foreign nations as supporters and collaborators in an ongoing battle with COVID-19.

### Summaries

---

- #COVID19
- #Wuhan, a city of 11 million people, is at the forefront of a fierce battle against the novel #coronavirus.
- South American officials send blessings to China amid the combat against the
- #JackMa Foundation and Alibaba Foundation donate 1 million masks to Japan to aid #coronavirus fight.
- Amid #COVID-19 war, Xi calls on countries to share research data and jointly work out response strategies...
- These Chinese people at the forefront of the fight gave their answer....

Figure 21 - Automated summaries of tweets from Chinese news outlets using martial terminology before March 10th

[SQ2: What is the nature of coverage from after March 10th of the COVID-19 battle in Chinese news outlets?](#)

Looking at the tweets using martial imagery from March 10th through March 30th, the message shifts to Chinese aid in an international battle. [Fig. 22](#) shows that “Wuhan” has moved from the 7th most frequent word to the 13th, and instead “global”, “aid”, “italy” have become some of the top 10 most frequent words.

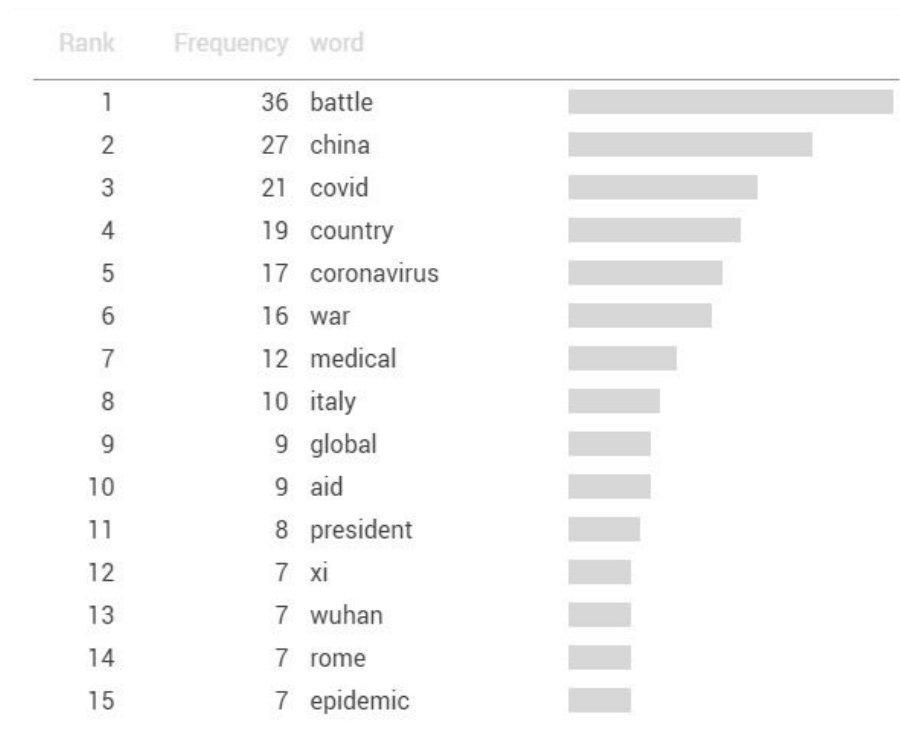


Figure 22 - Top 15 most frequent words in martial tweets from Chinese news before March 10th

Returning to tweets discussing Wuhan ([Fig. 23](#)), we find descriptions of the battle having been won and the battle giving hope to other nations.



Figure 23 - Example of tweets discussing Wuhan after March 10th

Looking at the automated summaries in [Fig. 24](#), there are claims of international problems, Chinese industrial success and innovation, and Chinese victory in the epicentre, Hubei province.

### Summaries

---

- #Coronavirus watch update on March 14: - Curfew placed on Metro Manila - UN chief urges declaring wars on virus - L...
- New rapid test strips for #coronavirus have been developed by a company in Hefei, China.
- No new infections of the novel #coronavirus were reported on Wednesday in #Hubei, the epicenter of the pandemic, marking a notable first in the province's months-long battle with the deadly virus Hubei reports: - 57,678 recovered - 67,800 total infections - 3,130 deaths
- Driverless sweepers have been put into use to clean and disinfect key areas at 12 hospitals designated for COVID-19 treatment across China #FightVirus
- The African country is taking a raft of measures including international travel ban and public school suspension to fight
- U.S. President Donald Trump said Monday that the United States could be coping with the novel #coronavirus until July or August.

Figure 24 - Automated summaries of tweets from Chinese news outlets using martial terminology after March 10th

**SQ3: How much of the messaging on COVID-19 can be attributed to “people’s war and popular victory” in Chinese news outlets?**

There are a total of 3,239 tweets that we collected from China Xinhua News, CGTN, and CCTV+ from February 20 to March 30. Of those 144 mention “#fightvirus”, “battle”, or “war”, indicators of discussion of COVID-19 in military terms. This means that only about 5% of discussions use the “war” terminology. [Fig. 25](#) shows that this discussion involves calls to treat the disease in military terms, promoting cooperation with other nations, technological and medical improvements from China and victory in eliminating the disease in its epicentre in Hubei.



### Summaries

- #Coronavirus watch update on March 14: - Curfew placed on Metro Manila - UN chief urges declaring wars on virus - L...
- Amid #COVID-19 war, Xi calls on countries to share research data and jointly work out response strategies...
- New rapid test strips for #coronavirus have been developed by a company in Hefei, China.
- Here are #XiJinping's key quotes about the battle against the novel #coronavirus from his inspection of Wuhan
- How is traditional Chinese medicine being used to battle COVID-19?
- No new infections of the novel #coronavirus were reported on Wednesday in #Hubei, the epicenter of the pandemic, marking a notable first in the province's months-long battle with the deadly virus Hubei reports: - 57,678 recovered - 67,800 total infections - 3,130 deaths

Figure 25 - Automated summaries of tweets from Chinese news outlets using martial terminology

These messages contrast with the COVID-19 coverage that does not mention martial terminology (2,501 tweets). As seen in [Fig. 26](#), the remaining coverage involves the seriousness of the disease in terms of deaths and economic cost, international response to the disease, and human interest stories concerning unique individuals' response to the disease.

### Summaries

---

- Profits of China's major industrial firms slumped by 38.3% in the first two months of 2020 as the coronavirus outbreak deals a huge blow to industrial production
- Total confirmed cases reach 53,578
- When two Beijing teachers got stuck in the U.S. after the COVID-19 outbreak, they decided to turn their local libra...
- Aussie PM says all overseas arrivals including Australian citizens would be required to self-isolate for 14 days amid the COVID-19 outbreak
- #Coronavirus watch update, March 11: - WHO: global cases surpass 110,000, over 4,000 dead,...
- Therefore, deliverymen are needed more than ever...

Figure 26 - Automated summaries of tweets from Chinese news outlets avoiding martial terminology

#### SQ4: How are Xi and Trump portrayed in Chinese news outlets?

President Xi is portrayed in Chinese news as a strong world leader who is promoting multilateralism in the fight against COVID-19. [Fig. 27](#) shows that the most frequent hashtags and words in discussing President Xi involve other nations, “summit” and the “g20”. [Fig. 28](#) gives some example tweets that show the claims of President Xi’s strong presence and multilateral outreach.

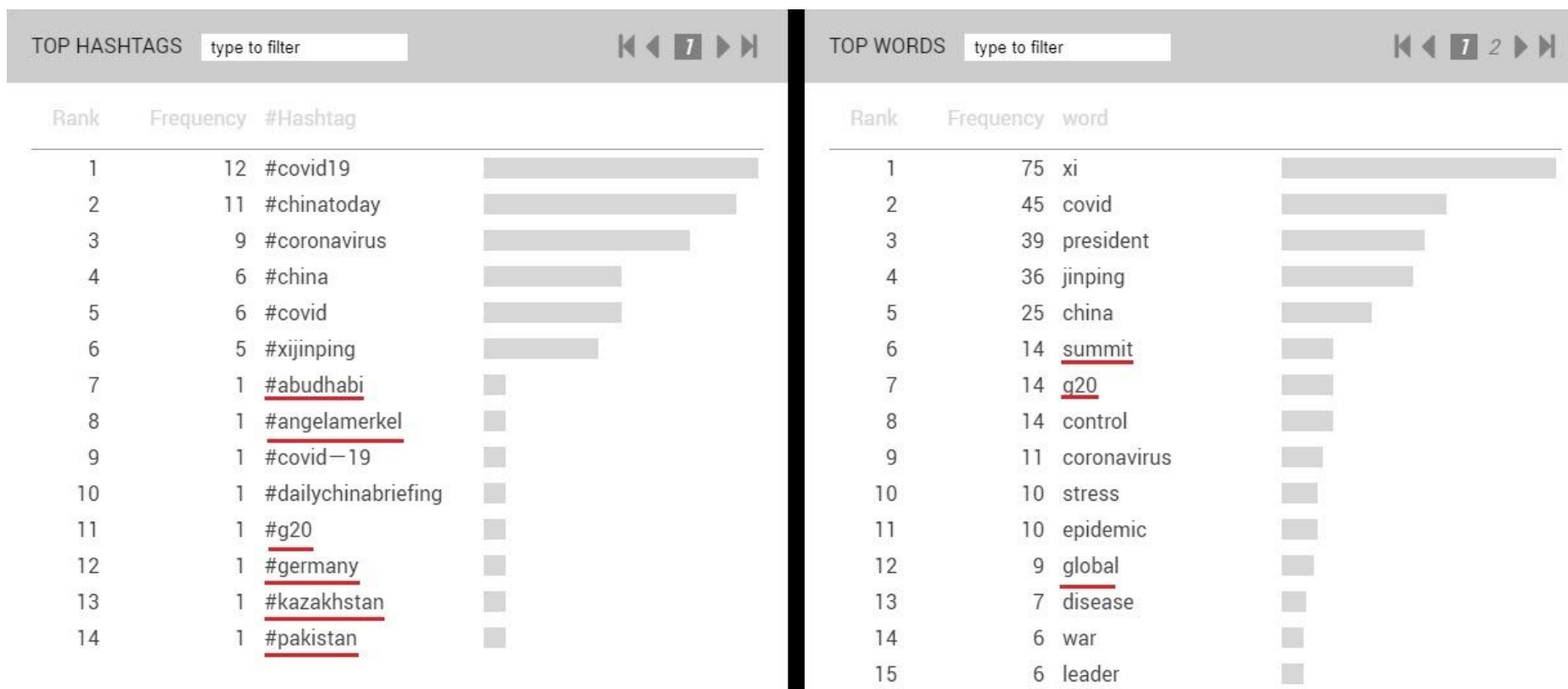


Figure 27 - Top 15 most frequent hashtags and top 15 most frequent words in Chinese news when discussing President X



Figure 28 - Example tweets from Chinese news when discussing President Xi

In contrast, the automated summaries of Chinese news discussion of the US leaders ([Fig. 29](#)), show an internal focus for the US government and clashes within the US between the president and the democratic party.

Top Named Entities	Summaries
<p><b>Event:</b> Fight - Xi; Spring Festival</p> <p><b>Facility:</b> The White House</p> <p><b>Geo-Political Entity:</b> U.S.; China; The United States; Italy; New York</p> <p><b>Language:</b> Chinese</p> <p><b>Location:</b> Sout; Europe</p> <p><b>Nationality:</b> Chinese; American; Democrats; Asian-Americans; Brazilian</p> <p><b>Organization:</b> Trump; Trump @Realdonaldtrump; White House; Senate; Chinesevirus</p> <p><b>Person:</b> Donald Trump; Trump; Pence; Mike Pence; Coronavirus</p> <p><b>Work of Art:</b> Corona; Chinese Virus</p>	<ul style="list-style-type: none"> <li>• Senate passes #coronavirus response measure to provide sick leave, free testing; Trump's signature next.</li> <li>• If the news is officially confirmed, President Trump and VP Pence both should take a 14-day quarantine and get coro...</li> <li>• COVID-19 death rate in U.S. likely to peak in two weeks, he says</li> <li>• After the first coronavirus death in the U.S., President Trump announced new travel restrictions for Italy and Sout...</li> <li>• #COVID19US Trump @realDonaldTrump calls Democrats' criticism of coronavirus control a "new hoax"</li> <li>• U.S. President Donald Trump said Monday that the United States could be coping with the novel #coronavirus until July or August.</li> </ul>

Figure 29 - Automated summaries from Chinese news when discussing President Trump or Vice-President Pence

In addition to the internal focus, example tweets shown in [Fig. 30](#), describe President Trump as contradictory and that his claims concerning China “does not comport”.



Figure 30 - Example tweets from Chinese news when discussing President Trump or Vice-President Pence



This concludes the report, thank you for reading.

### Contact Information

To contact the authors please see the contact information below:

**Marshall Gunter**, CEO : [mgunter@nexalogy.com](mailto:mgunter@nexalogy.com)

**Zachary P. Devereaux**, Director of Public Sector Solutions : [zdevereaux@nexalogy.com](mailto:zdevereaux@nexalogy.com)

**Dr. Akiva Bacovcin**, Machine-learning and NLP expert : [abacovcin@nexalogy.com](mailto:abacovcin@nexalogy.com)