

Sockpuppets Spin COVID Yarns: An Analysis of PRC-Attributed June 2020 Twitter takedown

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1 Summary

On June 11, 2020, Twitter announced the takedown of a collection of 23,750 accounts attributed to the People's Republic of China (PRC), with technical indicators linking the operation to the same actor responsible for the network of 200,000 accounts suspended in [August 2019](#). Most of the 23,750 accounts in this disclosure were caught relatively quickly and thus failed to gain traction on the platform. Twitter's assessment of the operation notes that these accounts were themselves part of a larger network, the remainder of which primarily served to retweet the core; the amplifiers were not included in the public takedown data set.

This June 2020 PRC-attributed operation had considerable topical overlap with the August 2019 operation, particularly concerning the pro-democracy movement in Hong Kong and [attacks on Chinese billionaire Guo Wengui](#) (now in exile in the United States). A small portion of the tweets occurred during the same timeframe as the 2019 operation, involving accounts found after that first takedown. However, more significantly, it appears that the PRC simply created new accounts to talk about the same topics after losing the first network. The personas are not well-developed and have no biographies or backstories that clearly articulate who they are supposed to be; the tone of the content creates the perception that the tweets are the opinions of an average Chinese person.

One notable narrative addition in this takedown is content related to the coronavirus pandemic. Other recent research, such as [an analysis by Bellingcat](#), suggested the emergence of COVID-19 as a topical focus for likely-CCP accounts; this takedown offers concrete confirmation. The COVID-19 related content includes tweets cheerleading for the Chinese government, emphasizing Chinese unity, calling for global unity, and praising doctors and medical workers. It also pointedly criticizes the US epidemic response, quibbles over the international perception that Taiwan's response was superior to China's, and attacks Guo Wengui for allegedly spreading false news on the coronavirus and "discrediting China".

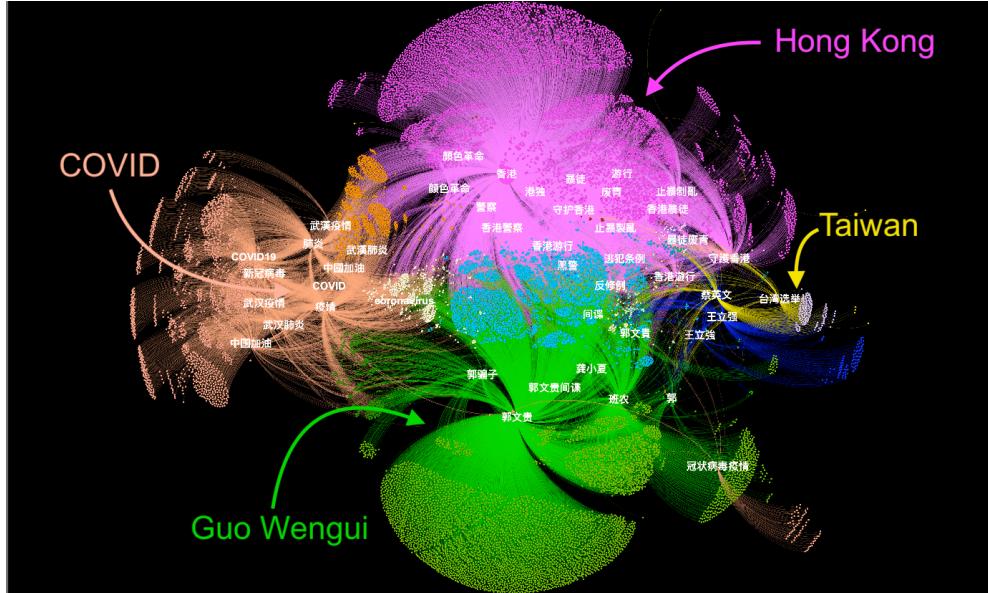


Figure 1: A representation of the four major topics consistent throughout the operation, depicted by hashtags related to that topic. Each node represents an account tweeting about a specific hashtag; the hashtags appear in white. Edges are colored according to topic categorization: Hong Kong (Pink), Guo Wengui (Green), COVID-19 (Orange), or Taiwan (Yellow, or Dark Blue if related to Wang Liqiang). Nodes are colored according to the range of topics that user discussed over the entire dataset: for example, users only tweeting about Hong Kong are colored Pink, while users tweeting about Hong Kong and Guo are light blue. Full colorings found in Appendix.

2 Key Takeaways

- Tweets were topically divided among four main groups: the Hong Kong protests; COVID-19; the exiled Chinese billionaire Guo Wengui; and Taiwan (a smaller but still significant set).
- Tweet activity around COVID-19 ramped up in late January 2020 and spiked in late March. The majority of accounts were created mere weeks before they began tweeting in late January; however, some were created as early as September 2019, remaining dormant until they began tweeting about COVID-19 in March.
- Narratives around COVID-19 primarily praise China's response to the virus, and occasionally contrast China's response against that of the U.S. government or Taiwan's response, or use the presence of the virus as a means to attack Hong Kong activists.
- Similar to the 2019 PRC-attributed dataset, the accounts used in this operation were not well developed personas: most accounts had fewer than 10 followers and no bios, and some accounts tweeted concurrently in both Russian and Chinese. Batches of accounts were created on the same day with similar naming conventions or bio patterns.
- There was considerable overlap in narratives related to Hong Kong and Guo, as observed in the 2019 operation. In the 2020 dataset, tweets about Hong Kong and Guo clustered around significant events, working to counter pro-democracy narratives in Hong Kong and denounce Guo's

new business contract with former White House chief strategist Steve Bannon.

3 Operational Behaviors

3.1 Accounts

SIO analyzed 23,750 of the suspended accounts and 348,608 tweets. The accounts were created between January 11, 2018, and April 15, 2020, with the majority of accounts created after October 2019.

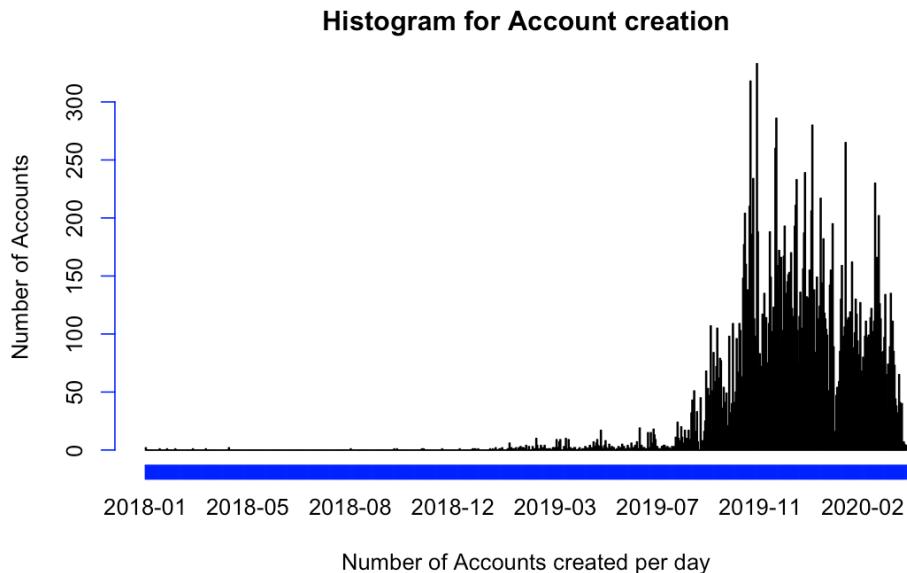


Figure 2: Most accounts were created around late 2019 to January 2020 (after the earlier network was taken down).

Similar to the accounts taken down in the 2019 dataset, accounts in this dataset had relatively primitive personas and did not demonstrate any indicators that their operators had attempted to develop convincing backstories or to establish relationships with authentic influencers. Accounts appeared to be created in clusters, with similar naming conventions grouping the clusters though varying over time. In some clusters, the username was created as a FirstnameLastname, others took the format of FirstnameDigits. First names were reused dozens of times.

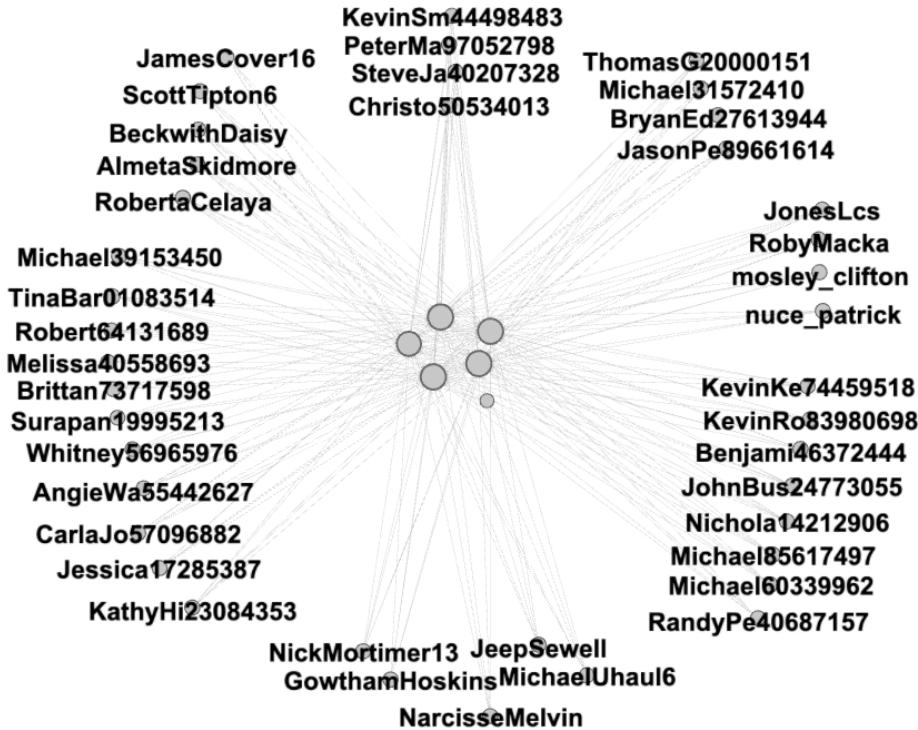


Figure 3: An example of a cluster of accounts with similar naming conventions all deployed in service to retweeting content from the cluster of accounts in the center; these retweet rings were observed on numerous occasions. Sometimes the central cluster included accounts in the takedown set, other times they were accounts not in the set that were often still suspended.

Most of the accounts had very small followings: over 92% of accounts had less than 10 followers. Some of the accounts demonstrated participation in “#Followback” rings and solicitations. Most accounts had no bios, though a handful had bios in the style of online profile generation tools (“Twitter ninja. Total entrepreneur. Professional reader. Award-winning internet guru.”). Profile biography links were similarly sparse; only 16 had links, primarily to spam pages, with a couple of social profiles on Instagram and VK.

Some accounts in the data set tweeted concurrently in both Russian and Chinese. For example, one of the accounts that tweeted in both Russian and Chinese, @ivanovg58, created on January 27, 2018, originally tweeted exclusively in Russian. The account promoted links to Russian content farms promising the best makeup tutorials and relationship advice. Then, on November 1, 2019, it tweeted in Chinese, “Guo Wengui and Ban Nong, one for seeking political asylum and one for an annual salary of 1 million US dollars, each had a ghost and became embarrassed. #郭文贵 #班农 #Two-sided spy <https://t.co/V6UNJCyLxs>” (translated).

@ivanovg58 continued to tweet in Chinese about the Hong Kong “thugs,” interspersed with Russian-language promotion of Russian content farms.

“郭文贵与班农一个为了寻求政治庇护，一个为了年薪100万美金的酬劳，各怀鬼胎，狼狈为奸。#郭文贵 #班农 #双面间谍 <https://t.co/V6UNJCyLxs>” - @ivanovg58

3.2 Tweets

3.2.1 Topical Focus & Account Deployment

Tweets in this takedown were largely focused on four main topic categories: Hong Kong, exiled Chinese billionaire Guo Wengui, COVID-19, and Taiwan. The major trends in these narratives can be explained in two major phases, which line up well with the pre- and post-COVID time periods.

Phase 1 - 2019						Phase 2 - 2020			
July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April
Early Hong Kong- or Guo Wengui-related account creation.						COVID-related account creation	Tweet activity becomes evenly split between Hong Kong, Guo, and COVID material. Heaviest activity between mid-March through April.		

Figure 4: Timeline of major narrative trends in the dataset.

Early tweet activity was centered on Hong Kong and Guo. This activity started in October 2019, and was initially driven by “mixed” accounts that discuss both Hong Kong and Guo. The second phase, which began in January 2020, involved a marked shift to include COVID-related narratives and dedicated account clusters.

To understand this dynamic on a more granular level, we then classified users based on the distribution of their tweet activity across these topics. Users could receive either singular or ‘multi-conversational’ labels: for example, if an account at some point tweeted about Guo, then at a later date tweeted about Hong Kong, the user would be labeled “Guo, HK.”

Class	Percentage of Tweets
HK	33.3%
Guo	26.9%
Guo, HK	18.1%
COVID	9.7%
COVID, HK	4.1%

Figure 5: A breakdown of the top five user labels in the dataset. Users were labeled according to their use of key hashtags. The full methodology and terms used for coding each tweet are listed in the Appendix.

This classification allowed us to study the subject-matter dynamics of the data across both the temporal and topical axes. In doing so, we were able to observe how accounts were created then deployed in quick succession to push content on each of these distinct topical areas.

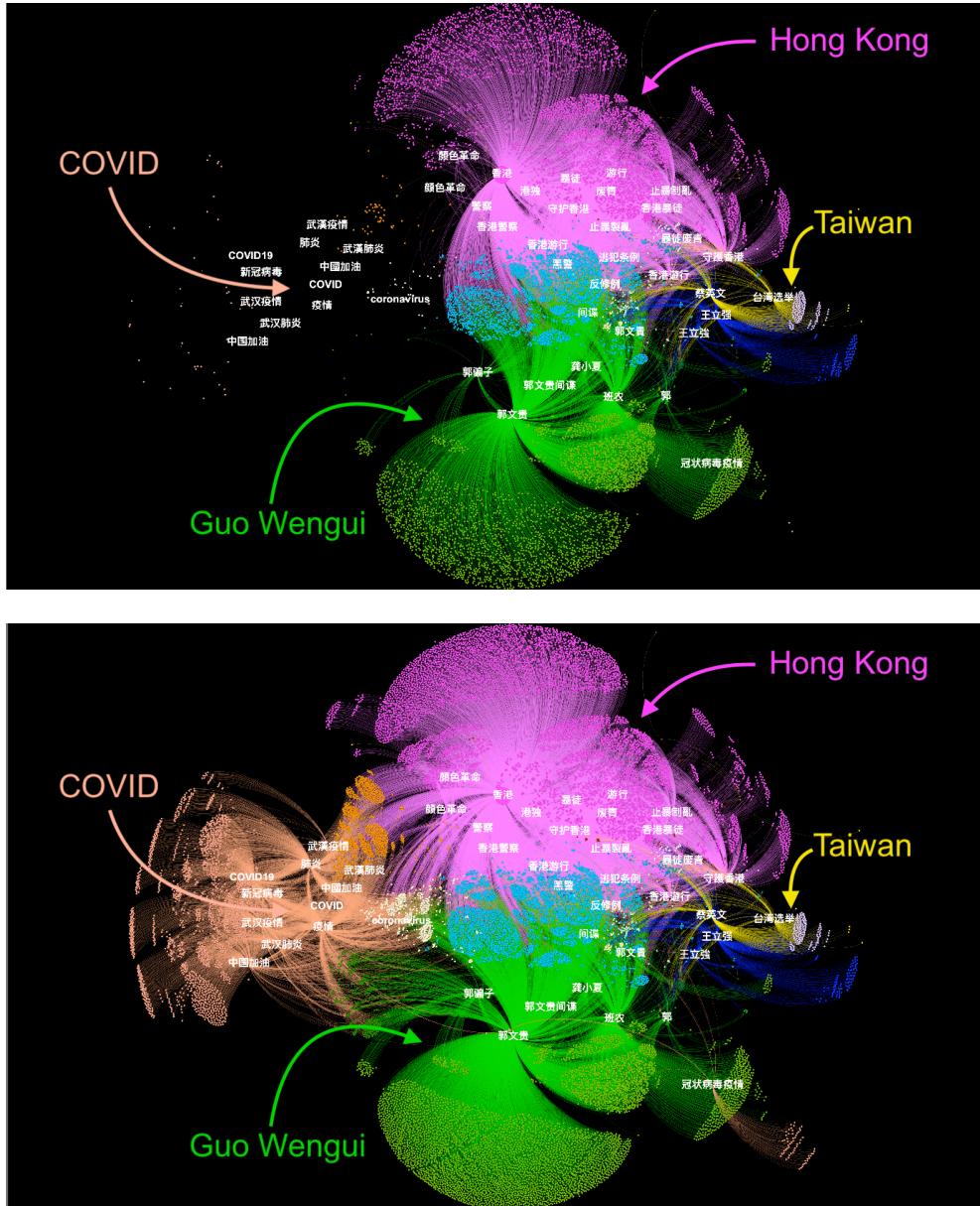


Figure 6: Top, image of hashtag activity in the dataset up until January 1, 2020. Bottom, image of all hashtag activity up until April 17, 2020 (end of the dataset). The four months from January to April 2020 period saw the mass creation of COVID-related accounts, and shift towards tweets on the COVID narrative in addition to ongoing Hong Kong- and Guo-related tweets. Each node represents an account tweeting about a specific hashtag; the hashtags appear in white.

There were two major takeaways in terms of account activity and account creation given this view. First, we observed that ‘multi-conversation’ users drove most of the early tweet activity, both during Phase 1 with Hong Kong and Guo material and then again later in the operation when COVID-19 became a focus. In both cases, ‘unique-conversation’ users creation and engagement followed after multi-conversation accounts had already driven up content production on the given topic. Additionally, we found that multi-conversation users largely shared the same overall messaging as their singular-topic peers.

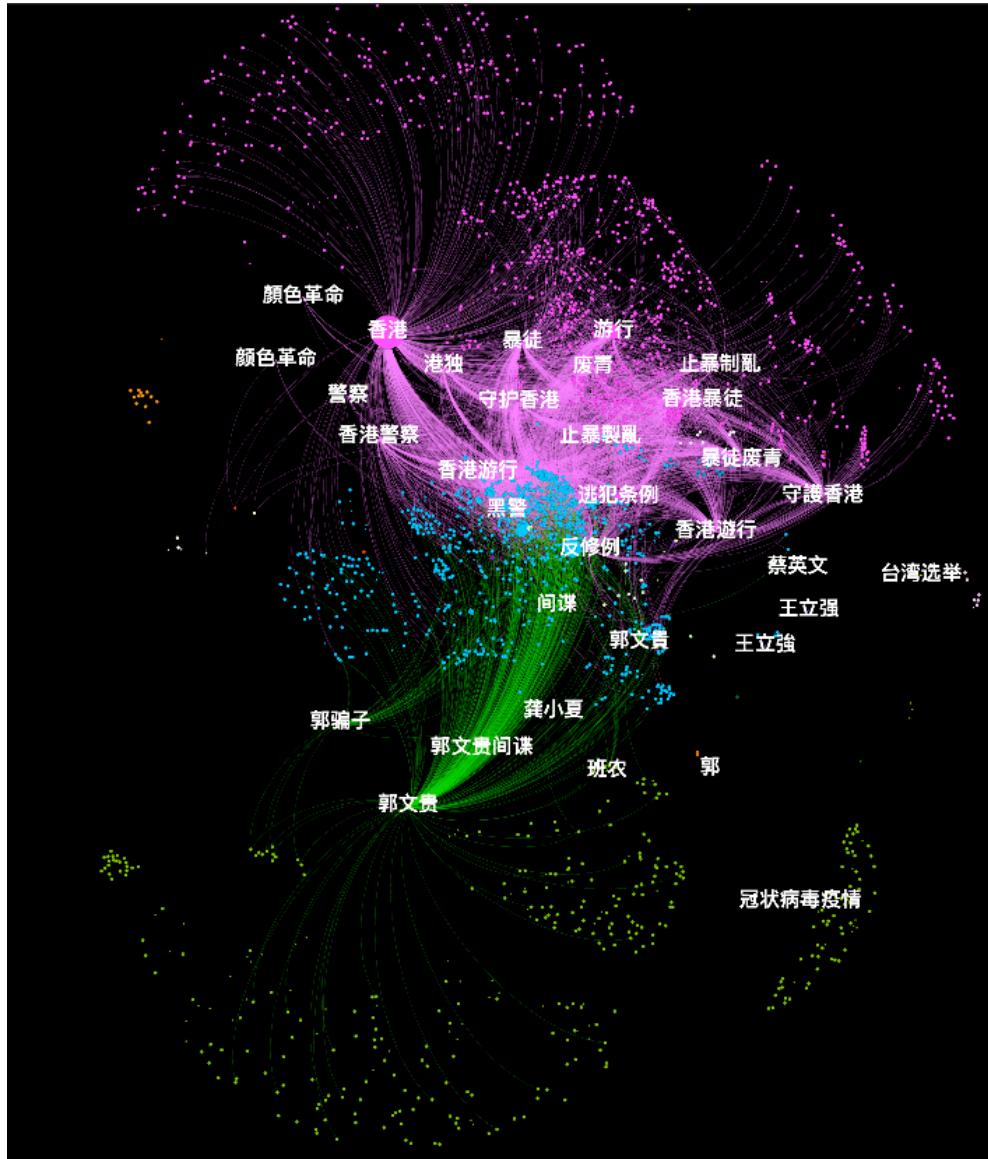


Figure 7: A view of the user hashtag graph through October 15, 2019. Early Phase 1 activity was driven by the blue nodes at the center of the graph, which denote 'multi-conversation' users who contributed to both Hong Kong and Guo Wengui narratives.

3.2.2 Activity

Tweet activity per day is displayed in Figure 8 on the following page. We observed peaks in activity towards the end of 2019, and in early January, a lull around February, and activity picking back up around March and April.

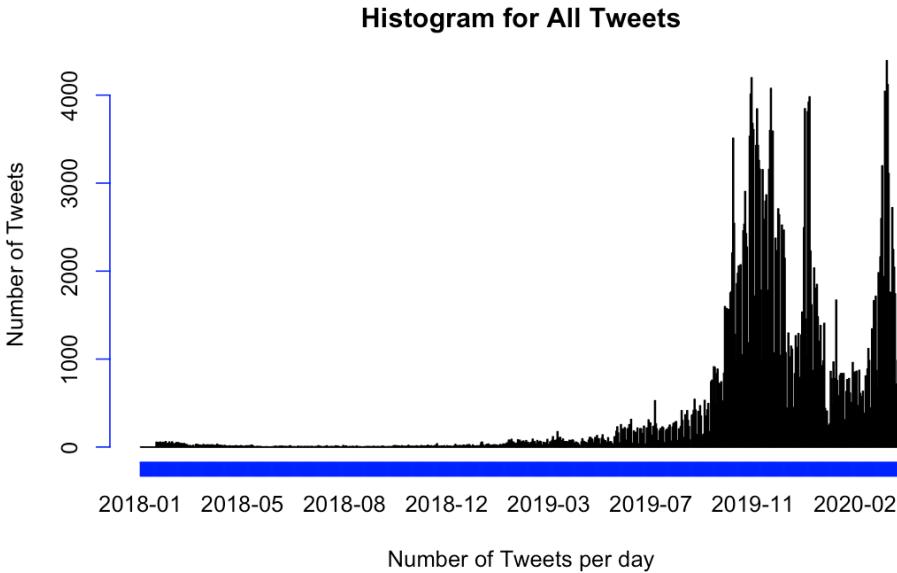


Figure 8: Tweet activity ramps up in September 2019, significantly dips in late December 2019 and again in mid-January 2020 to late February 2020 (second dip is possibly related to extended Chinese New Year, January 24–February 2, and business closures in several provinces until February 9, in Guangdong until February 24).

3.2.3 Language

The majority of the 348,608 tweets were in Chinese (78.8%), followed by a small portion in English (9.4%) and a smaller amount in Russian (1.8%). Tweets in Chinese were both in traditional and simplified characters. Twitter's language categorization does not appear to distinguish between the two; analysis of the top 50 tweets in Chinese by engagement reveals that 39 of them (78%) were written in simplified Chinese, which is used in mainland China but not in Hong Kong and Taiwan, where traditional characters are used instead. At least one tweet was written in traditional characters but used simplified ones for hashtags (“RT @RochelBradstre1: #暴徒废青 #严惩暴徒 #甲由 #逃犯条例 #游行 # 暴徒 #香港游行 #香港暴徒 #港独 #废青 #守护香港 #撑警行动 #香港警察 #反暴力游行 嘿哟 亂港分子嘅暴力活動，威脅到香港市民嘅生命財產安全，破壞咗香港嘅繁榮穩定。”). This use of both traditional and simplified Chinese could reflect differences in the targeted audiences of individual tweets. In a random subset of 100 Tweets focused on Hong Kong, 64 were written in traditional characters. One user claimed “I love Hong Kong, Hong Kong is my home” (“@cats12570208 热爱香港, 香港是我家。”), but wrote this in simplified characters.

3.2.4 Engagement

Engagement was generally low. The average engagement per tweet (Favorites, Replies, Retweets) was 0.81, and the max tweet engagement was 3,719. The average engagement per account was 23.07.

While there were significantly more tweets about Hong Kong in Chinese, tweets in English on the same topic received much higher engagement. The top tweet by engagement in the dataset (3,718 likes and 1 share) is about Hong Kong:

“Fully support the Hong Kong Police Force to enforce laws strictly, stop riots and control chaos, maintain Hong Kong’s safety and stability, and revive the glory of the past.” – @KaitlynFondren8 (six followers, 21 tweets in total over 12 days).

Of the top 50 tweets by highest engagement, 19 were about Guo Wengui, 16 about Hong Kong, 11 about COVID-19, and one was spam.

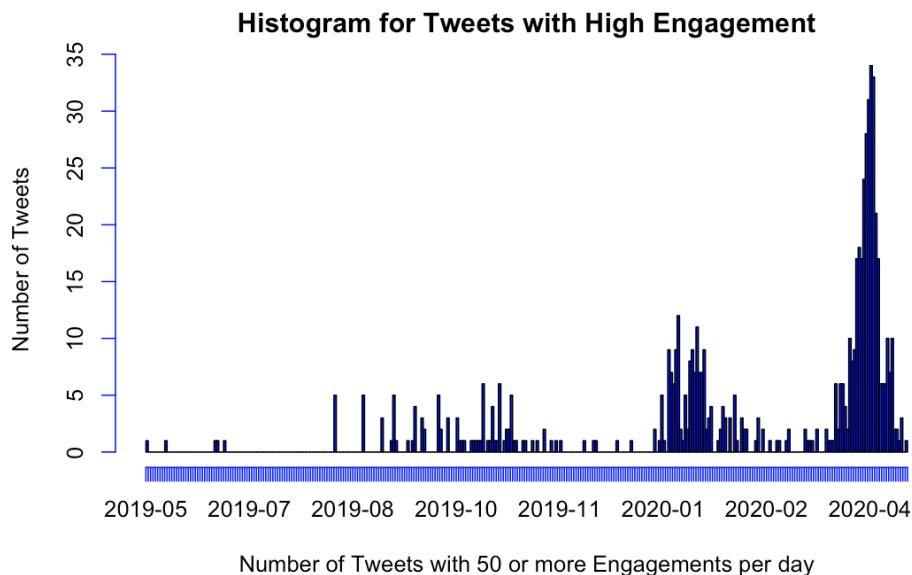


Figure 9: Tweets in March and April received much more engagement (Favorites, Replies, Retweets) compared with the rest of the campaign.

3.2.5 Domains

Of the top domains shared by the network, YouTube was by far the most shared (12,580 times). Analysis of the top 50 most shared YouTube videos revealed that the majority of videos were about the Hong Kong protests, and many are still up on YouTube. Many of these videos came from the channel, [Speak 港人講地](#), (“Speak Hong Kong people speaking”). Created in 2013, the channel has 267,000 subscribers. Many of the videos shared by the channel depict the Hong Kong protests as violent and destroying Hong Kong. Most of the other channels shared by the network had a much smaller audience, with around a thousand subscribers. While the videos shared in this dataset from these channels were about Hong Kong, Guo, and COVID-19, the majority of content on these channels was Tik Tok videos, or pictures of nature or animals. The videos had very few to no views and were sometimes labeled with a string of random letters and numbers (figure).

This phenomenon of spam-heavy channels sharing political video has previously been documented in a report related to the 2019 PRC influence operation by the network analysis company, [Graphika](#). The identification of this tactic

in the new takedown dataset demonstrates the persistence of the tactic.

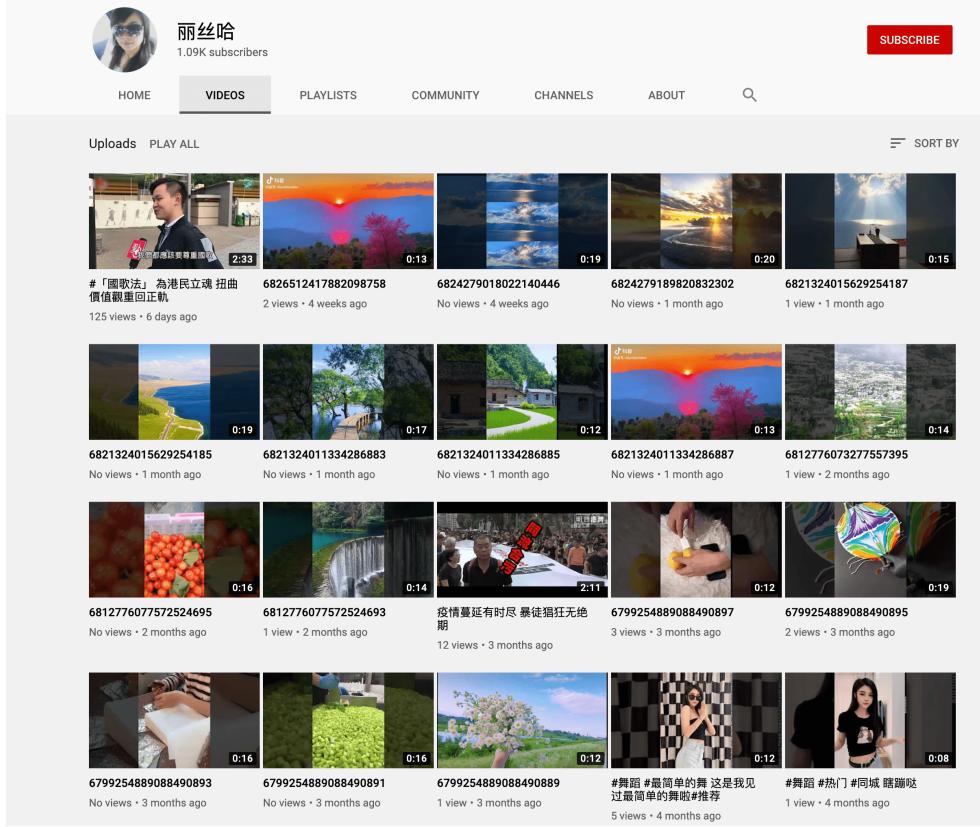


Figure 10: A screenshot taken on June 11, 2020 of the channel 丽丝哈. While the channel posts a lot of spam-related content, on January 18, 2020, the channel shared a video titled, 香港「顏色革命」註定失敗 香港明天會越來越好, or “Hong Kong's 'color revolution' is doomed to fail” (translated).

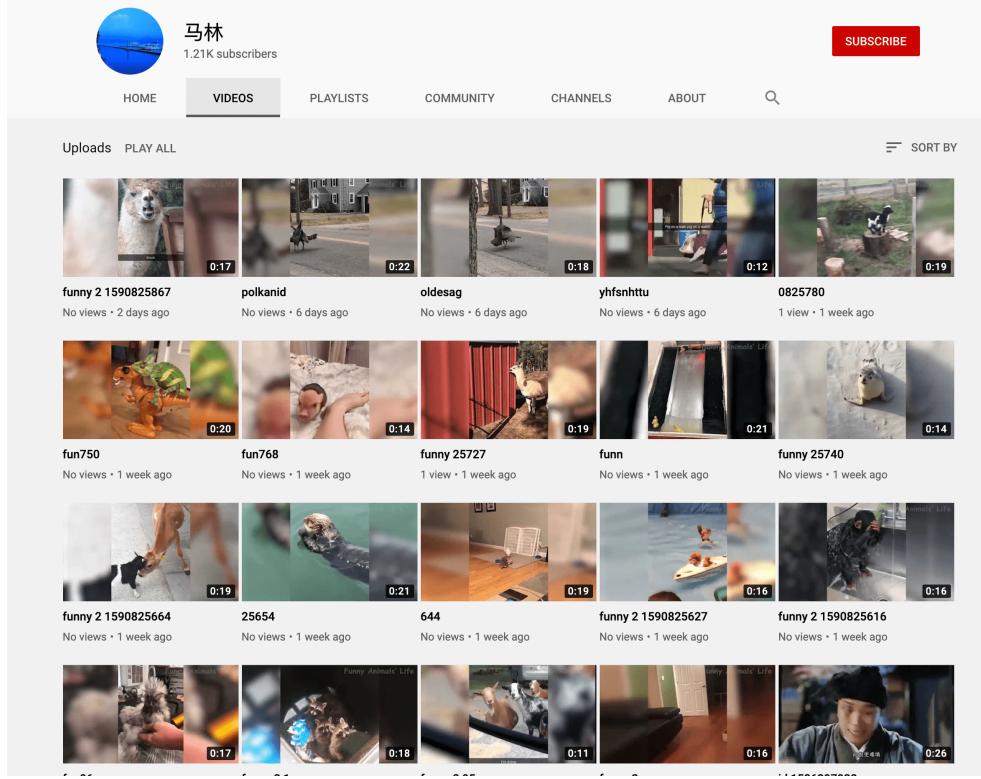


Figure 11: A screenshot taken on June 11, 2020 of the channel, 马林. On November 17, 2019, the channel posted a video titled, “面对质疑，祸港言论见光死”，or “Faced with doubts, Hong Kong's remarks will die” (translated).

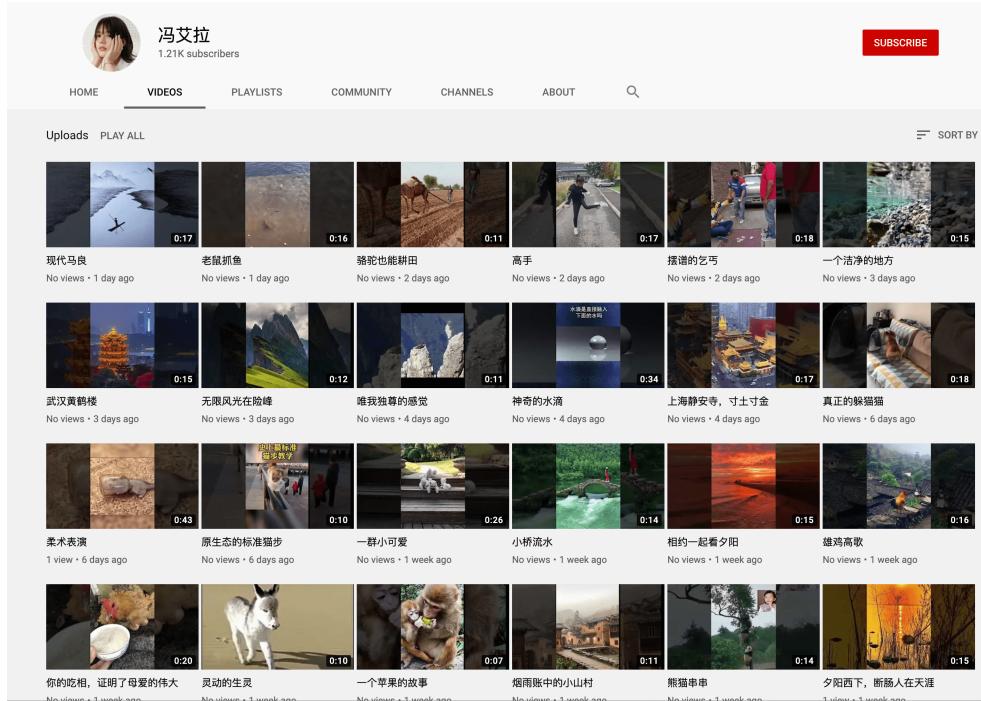


Figure 12: A screenshot taken on June 11, 2020 of the channel 冯艾拉. On February 10, 2020, the channel shared a video titled, “反对派，你哋借病毒搞港独嘅用心好邪恶！”，or “Opposition, you use the virus to engage in Hong Kong's unique intentions so evil!” (translated).

Following YouTube, the second top domain linked in the dataset is “accounts.youtube.com” (2,391), which appears to be a manipulative domain tied to past **phishing attacks** on Twitter. A small number of accounts shared the link and used the hashtags #followme and #ff to gain followers.

raperooai	https://t.co/PuW6jo3twf#FF#RT#TFB#FOLLOWME#AUTOFOLLOW#OPENFOLLOW #SOUGOFOLLOW#TEAMFOLLOWBACK#AUTOFOLLOWBACK
reinutpett	https://t.co/5v5Y3lUY0#FF#RT#TFB#FOLLOWME#AUTOFOLLOW#OPENFOLLOW #SOUGOFOLLOW#TEAMFOLLOWBACK#AUTOFOLLOWBACK
cieroitiarr	https://t.co/6lf84FUfj#FF#RT#TFB#FOLLOWME#AUTOFOLLOW#OPENFOLLOW #SOUGOFOLLOW#TEAMFOLLOWBACK#AUTOFOLLOWBACK
geruitpcua	https://t.co/cNgWVFR2uM#FF#RT#TFB#FOLLOWME#AUTOFOLLOW#OPENFOLLOW #SOUGOFOLLOW#TEAMFOLLOWBACK#AUTOFOLLOWBACK
cieroitiarr	https://t.co/alBRk4fiyy#FF#RT#TFB#FOLLOWME#AUTOFOLLOW#OPENFOLLOW #SOUGOFOLLOW#TEAMFOLLOWBACK#AUTOFOLLOWBACK
raperooai	https://t.co/qjtN8rlLz#FF#RT#TFB#FOLLOWME#AUTOFOLLOW#OPENFOLLOW #SOUGOFOLLOW#TEAMFOLLOWBACK#AUTOFOLLOWBACK
seirupgpaere	https://t.co/m2qYnaBcsL#FF#RT#TFB#FOLLOWME#AUTOFOLLOW#OPENFOLLOW #SOUGOFOLLOW#TEAMFOLLOWBACK#AUTOFOLLOWBACK
raperooai	https://t.co/BCzJWzVoZ#FF#RT#TFB#FOLLOWME#AUTOFOLLOW#OPENFOLLOW #SOUGOFOLLOW#TEAMFOLLOWBACK#AUTOFOLLOWBACK
geruitpcua	https://t.co/Y5GcYe1ANX#FF#RT#TFB#FOLLOWME#AUTOFOLLOW#OPENFOLLOW #SOUGOFOLLOW#TEAMFOLLOWBACK#AUTOFOLLOWBACK
teiridpaer	https://t.co/WIR6E4DppU#FF#RT#TFB#FOLLOWME#AUTOFOLLOW#OPENFOLLOW #SOUGOFOLLOW#TEAMFOLLOWBACK#AUTOFOLLOWBACK
geruitpcua	https://t.co/dDtFuTsgQE#FF#RT#TFB#FOLLOWME#AUTOFOLLOW#OPENFOLLOW #SOUGOFOLLOW#TEAMFOLLOWBACK#AUTOFOLLOWBACK
serutugoac	https://t.co/vHcKvBBDF#FF#RT#TFB#FOLLOWME#AUTOFOLLOW#OPENFOLLOW #SOUGOFOLLOW#TEAMFOLLOWBACK#AUTOFOLLOWBACK
geruitpcua	https://t.co/uypg6wvNX7#FF#RT#TFB#FOLLOWME#AUTOFOLLOW#OPENFOLLOW #SOUGOFOLLOW#TEAMFOLLOWBACK#AUTOFOLLOWBACK
raperooai	https://t.co/HMbvybrNOT#FF#RT#TFB#FOLLOWME#AUTOFOLLOW#OPENFOLLOW #SOUGOFOLLOW#TEAMFOLLOWBACK#AUTOFOLLOWBACK

Figure 13: An example of accounts using the same hashtags to gain followers. The links shared in the tweets direct to the phishing link at accounts.youtube.com.

Other domains in the dataset were connected to spam content. A few of the top domains were of Russian content farms or Chinese discussion forums that shared articles about fashion or relationships, or discussion forums on news, finance, fashion, relationships, and more.

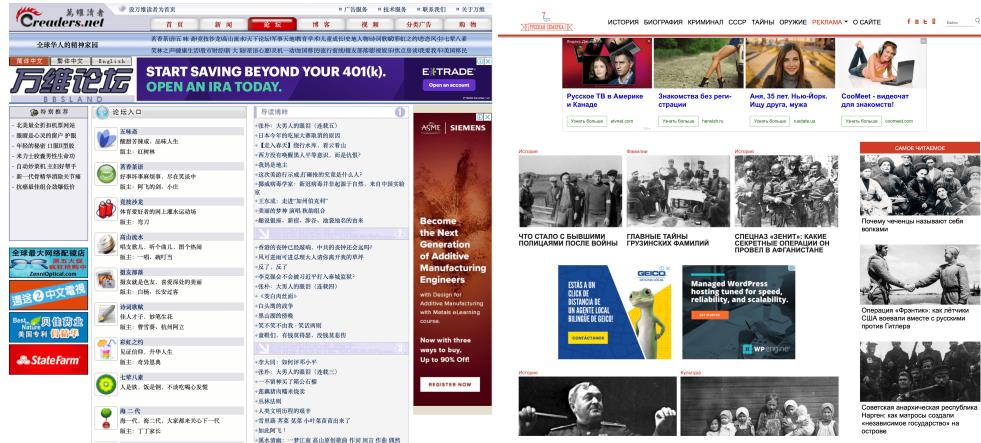


Figure 14: Left: A screenshot taken June 10, 2020, of the Chinese discussion forum bbs.creaders.net. Links to this domain were shared 499 times in the dataset. Right: A screenshot taken June 10, 2020, of the Russian content farm russian7.ru. Links to this domain were shared 262 times in the dataset.

4 Narrative Analysis

4.1 Hong Kong

The largest topic represented in the dataset was Hong Kong. The top hashtags related to Hong Kong were #暴徒 (thug), followed by #Guard Hong Kong in both traditional and simplified Chinese (守護香港 / 守护香港). The content related to Hong Kong was nearly identical to activity associated with previous

PRC influence operations: emphasizing the need for rule of law, praising and defending the Hong Kong police, and using the derogatory term 暴徒 (thug) to describe protesters.



Figure 15: An image used in one of the tweets shared support of Hong Kong police. The text on the image translates to, “Combat Black Storm: The police have been exhausted you are Hong Kong True Guardian” (translated). YouTube videos from the Silent Majority For HK Channel were also among some of the most shared YouTube links.

In this dataset, tweet activity clustered around significant political events, with peaks in activity in October through November, early January, and late March.

- **On October 4:** Hong Kong’s government under Carrie Lam introduced an anti-mask law (禁蒙面法) in response to protesters, igniting more protests. However, tweets mentioning an anti-mask initiative were seen as early as September 12, with some stating, “Hong Kong needs an ‘anti-mask law’” (translated). The build up of support and lobbying prior to the law’s introduction signifies potential astroturfing, or attempting to sway or contribute to a perception of public opinion on the subject.
- **Mid-October:** Tweets using the hashtag #港独 (Hong Kong independence) were used to condemn protesters rejecting the 2019 extradition bill, which was eventually withdrawn on October 23.

- **Mid-January:** Tweets using the term “顏色革命” (color revolution) (the popular term for previously revolutionary movements in the former Soviet Union, the PRC, and the Balkans) spiked significantly on January 10 and continued through January 23. These tweets stated that the color revolution “is not likely to last long” (translated), calling protesters “ignorant”, and labeling the revolution a “political conspiracy of ‘villain politicians’” (translated).

Tweets in the October to November time frame were particularly distinctive in their frequent use of the hashtags #暴徒, “thug,” and #暴力, “violence,” to describe the protests that were themselves marked by force and physical clashes.

During the later half of the campaign, COVID-19 became a prominent topic in the Hong Kong-related tweets, particularly in the month of February. Much of the hybrid messaging consisted of tweets praising the Hong Kong Police as they protected the city from the pandemic. One tweet accused the Hong Kong protesters of acting against the people’s will, saying that while COVID-19 was easy to cure, the “thugs” “black hearts” would be harder, but ultimately Hong Kong would “return to its splendid truth”: “RT @Kristen56561: 社會各界紛紛獻出愛心，或支撐香港、或援助內地災區，「亂港」暴徒卻違背民意繼續興風作浪，病毒易治，黑心難醫！ 疫情終會散，香港依舊會回歸其燦爛嘅本真，正義嘅曙光依舊閃耀！ <https://t.co/voGmsn6a5s>”

4.2 Guo Wengui

Tweets about the Chinese billionaire Guo Wengui (郭文贵) made up the second largest topic in the overall dataset. Guo’s name was the second most popular hashtag behind #香港 (#HongKong). Guo fell out with members of the CCP and **left China** in 2014 for self-imposed exile in the United States; he is **currently** on China’s most-wanted list for alleged bribery, fraud, and money laundering.

As with the prior 2019 takedown, the campaign targeting Guo was sustained across the timeline of the operation. Much of the activity focused on the publication of an Axios article about a contract between Guo Media and Steve Bannon.

On October 29, 2019, an article from **Axios** revealed information about a contract in which Bannon was offered \$1 million to be a consultant and senior editor for the news arm of Guo’s media company, Guo Media. This article, the first to expose the contract, was the most shared link among the network (shared 613 times). Some tweets sharing the article merely restated its headline, while many others criticized the partnership, describing it as a “shipwreck” (translated) and “bound to end in failure” (translated).

Bannon is mentioned in over 17,000 tweets combined between the English and Chinese content. Some of the tweets report on the Bannon-Guo relationship, while others attack Bannon for doing dirty work for his “billionaire benefactor” — including pushing “debunked claims related to the coronavirus.”

@AprilSa05809979 班农可耻的沦为郭文贵的金钱奴隶，道德沦丧
 - @Jessica59992265 (Translation to: “Bannon was shamefully reduced to Guo Wengui’s money slave, morals lost”)



Figure 16: An image of Steve Bannon shared in the tweets. (right) An image of Guo that reads “rumor” (谣言), a term commonly used in tweets mentioning Guo, insinuating that Guo spreads rumors.

Mentions of Guo peaked on January 3, 2020, when #郭文贵 (#GuoWengui) was used in 1,067 tweets. It is not clear what ignited the flurry of activity: some of the tweets criticize Guo broadly, describing 2020 as a year of his “imminent destruction and self-destruction” (translated). A portion of the tweets refer to his “New Years Live” broadcast, made the day prior, in which he talked about the virus in Wuhan.

4.3 COVID-19

Another notable share of tweets involved the coronavirus pandemic, with 9% of tweets (32,392 Tweets) mentioning coronavirus-related terms. Overall, the tweets in this set focused on cheering on the Chinese government epidemic response, calling for Chinese and global unity, painting China as a responsible stakeholder in the international environment, and praising the Hong Kong epidemic response while criticizing Hong Kong activists and Guo Wengui.

From mid-March, as the outbreak evolved into a global pandemic, the number of coronavirus-related tweets significantly increased.

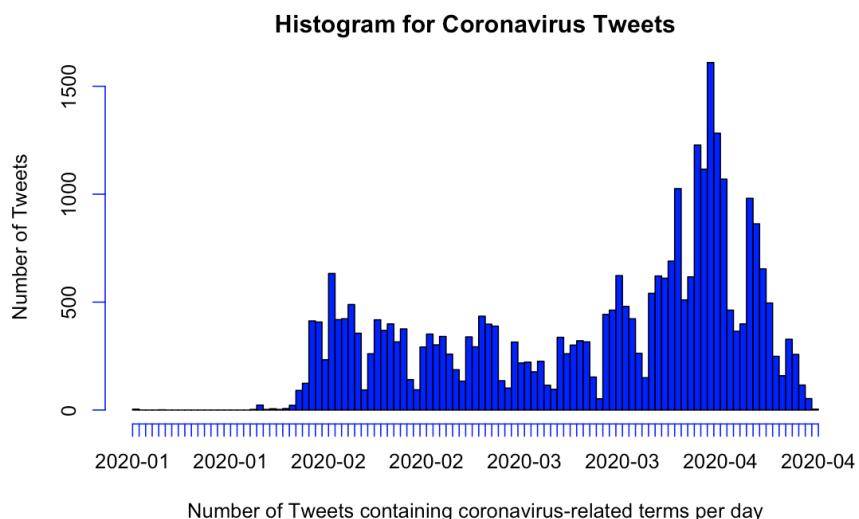


Figure 17: Daily tweet volume in the coronavirus-subset with a peak on April 1, 2020. It is unclear whether the decline was due to cessation of activity, or the network beginning to lose accounts due to the takedowns.

Up until early February, many of the coronavirus-related tweets focused on criticizing Guo Wengui, Hong Kong activists, and pan-democracy district councillors for allegedly spreading rumors about the severity of the outbreak and using the epidemic as “panic bullets” (恐慌的子弹). The tweets also called on Hong Kong and the Chinese Mainland to “unite” (團結一致) and work together to combat COVID-19. After it became obvious that the outbreak was severe, with the WHO declaring it a global health emergency on January 30, the narrative shifted from downplaying the outbreak to praising the Chinese government pandemic response and cheering on China and Wuhan (中国加油, 武汉加油). Tweets also asserted that China was winning or would win the “war” on COVID-19 (Xi Jinping declared the People’s War on COVID-19 on February 6).

In February, the accounts called attention to the coronavirus outbreak in Hong Kong, sharing tweets that criticized Hong Kong activists and praised the Hong Kong police and government for their pandemic response. Some asked how the protestors could undermine Hong Kong-China unity during an epidemic, referring to the dual struggle of epidemics and protests.

#肺炎 At a time when the community is in desperate need of a united response to the outbreak, the rioters are still creating chaos and undermining social stability. Please restore prosperity and stability to Hong Kong.#香港
<https://t.co/eMJd0bVW6W>

March, as the epidemic center shifted to Europe and reported COVID-19 cases in China fell rapidly, the narrative changed again to praising China’s success in combating the epidemic and affirming that China had demonstrated it was a “responsible big country” (负责任大国). Tweets also argued that the coronavirus was the “world’s enemy” and called for international cooperation and unity. Later, as reported cases in the U.S. began to rapidly rise, and U.S. government increased its comments blaming China for the outbreak, tweets criticized the U.S. pandemic response and called on the White House to learn from China’s successes and “put aside political bias” (放下政治偏见).

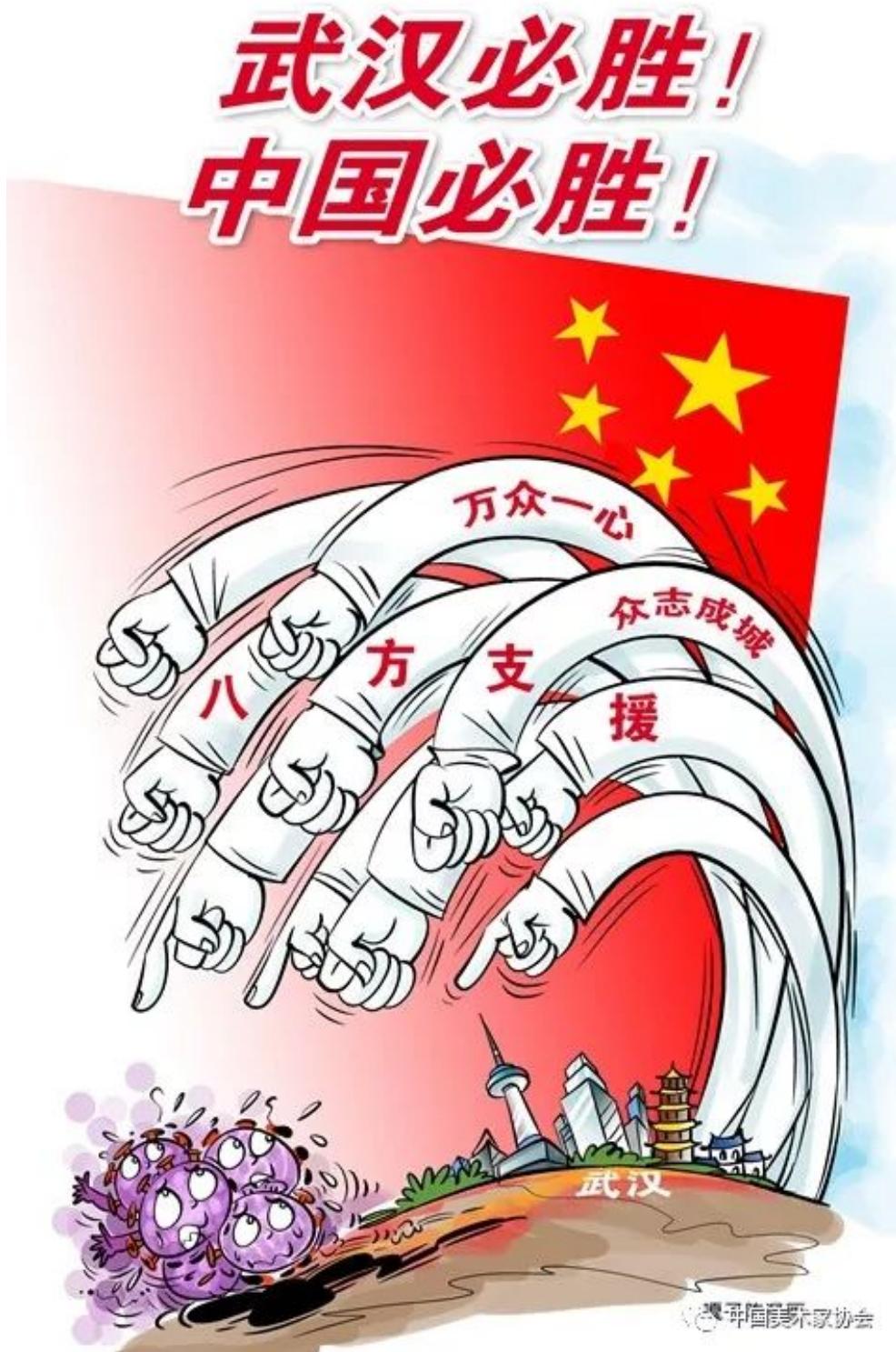


Figure 18: An image shared in a tweet displayed support for the PRC's efforts to combat COVID-19. The text on the tweet translates to, "Wuhan must win! China must win!"

For Western audiences, English-language tweets in March primarily reported news related to the outbreak. Some of the English-language tweets were retweets from prominent state media accounts @ChinaDaily, @globaltimes-news, and @PressTV (Iran), as well as retweets of Chinese officials such as

@Amb_ChenXu and foreign ministry account @SpokespersonCHN (we have discussed state media activity at length [here](#)). The content largely challenged the idea that China had delayed telling the world about COVID-19, instead claiming that the Chinese government had acted in a fast and transparent manner.

In April, accounts emphasized that the Chinese situation was under control, arguing Chinese “unity” and “national spirit” had led to the “rebirth” of Wuhan, the original outbreak center. Accounts continued their criticism of the Trump administration’s response while also stating that China wanted to support the U.S. in this “tough time” and the two countries should cooperate.

RT @NicoleG24816028: #美国疫情 如今西方自由社会的同类封锁令显得如此松散时就尤其令人不安。居高不下的疫情相关数字，还在持续上涨，实在令人难以接受。希望特朗普政府能尽快扭转政治主张，全面投入到战胜疫情的事情上来，加强国际合作，加大管控力度。什么经济啊霸权啊在… (Translation: “RT @ NicoleG24816028: #美国疫情 It is especially disturbing when similar blockades in Western free societies seem so loose today. The high number of epidemic-related figures continues to rise, which is really unacceptable. I hope that the Trump administration can reverse its political propositions as soon as possible, fully invest in overcoming the epidemic, strengthen international cooperation, and increase its control. What economy is hegemony…”)

4.4 Taiwan

One of the more interesting findings in this set is that despite the accounts being active during the Taiwan 2020 Presidential election, only around 1% of tweets (3,310 Tweets) contained Taiwan-related keywords. This is interesting given **widespread concern** about significant CCP information operations targeting the election. This relatively low level of manipulative activity (both in Chinese and English-language tweets) may partly be due to the fact that Twitter is a much less popular platform in Taiwan as compared to Hong Kong.

The most prominent story in the Taiwan set was related to news of alleged CCP spy Wang Liqiang, who defected to Australia in November 2019 and claimed to have meddled in Taiwan’s 2018 local elections on behalf of the CCP. Wang’s story received **much attention** in both traditional and social media in Taiwan. On November 21, Wang Liqiang alleged in an **interview with 60 Minutes Australia** that he was a former Chinese spy and detailed disinformation efforts he had conducted on behalf of the Chinese Communist Party. Wang’s efforts included supporting then-mayoral candidate and current presidential candidate Han Guo-yu. Tweets from accounts in the dataset called Wang a “fraudster” (诈骗犯) and “swindler” (欺诈犯) and criticized Tsai Ing-wen for “making a fuss” about Wang as part of an attempt to discredit her opponent Han Guo-yu. About half (47%) of all Taiwan-related tweets were shared between November 25-27, focused on Wang Liqiang (see figure 19 on the next page).

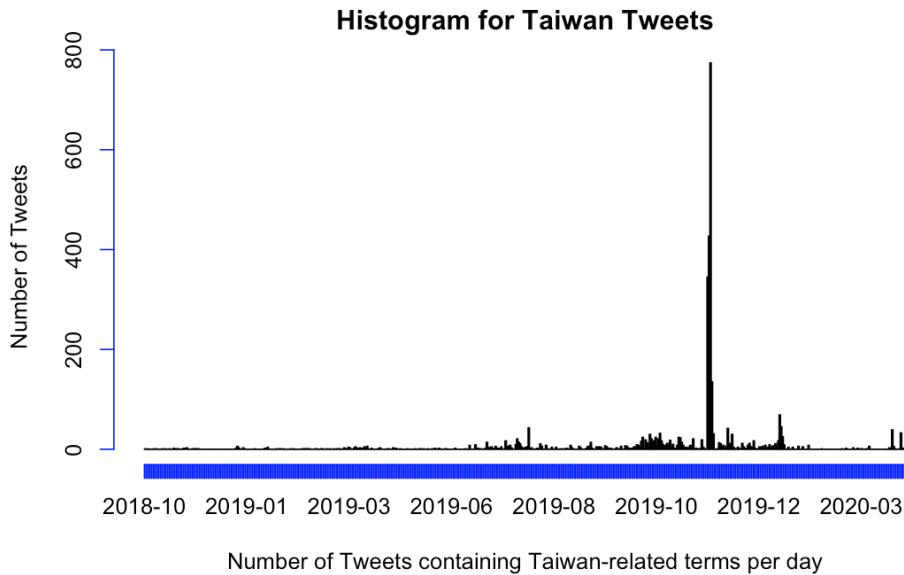


Figure 19: Activity pertaining to Taiwan is low overall, with a significant spike in late November 2019 around the story of alleged CCP spy Wang Liqiang.

Besides the Chinese spy scandal, tweets related to Taiwan focused on Chinese “national unity” (国家的统一) and emphasized that Taiwan splitting from the mainland was “wishful thinking” (痴心妄想). Accounts in the dataset also criticized incumbent President Tsai Ing-wen, who was running for re-election in the 2020 race, and alleged collusion between President Tsai, U.S. House of Representatives Speaker Nancy Pelosi, and the protesters in Hong Kong. Tweets additionally condemned Taiwanese “intervening” in Hong Kong and called for “reunification” of Taiwan with the Chinese mainland.

Interestingly, most of the tweets related to the election came after the presidential and legislative election happened, on January 11. These tweets, posted between January 13-16, said it was a “fact” that Taiwan was a part of Chinese territory, emphasizing national unity and bemoaning Hong Kong figures for supporting re-elected President Tsai Ing-wen.

English-language content related to Taiwan included very little about the January elections, aside from a few generic anti-democracy tweets and some content in early April alleging that Taiwan and Hong Kong independence movements were colluding.

In early April, most content related to Taiwan was still centered on territorial unity, though some tweets also addressed the coronavirus outbreak —for example, criticizing Taiwan for discrediting Mainland China and the World Health Organization. Other tweets focused on how Taiwan’s anti-epidemic efforts were successful because Taiwan had learned from China: “#新冠肺炎 Taiwan’s anti-epidemic effectiveness has responded and learned from the Mainland’s anti-epidemic experience.…” Clusters of accounts repeatedly retweeted claims of superiority such as “RT @NicoleS00264634: #新冠肺炎 China is the best anti epidemic country in the world, not Taiwan #新冠肺炎 <https://t.co/bSJU46taRv>”

5 Impact Assessment

Very few of the accounts in this network achieved any sort of significant reach or engagement, and many of the narratives the accounts promoted have been previously observed in past takedowns. The continued lack of focus on plausible persona development is notable. The operation is primarily interesting from the standpoint of confirming the commitment of the CCP to leverage all of the operational capabilities at its disposal to influence the global public on matters of national importance. Particularly in the context of the coronavirus pandemic, we have now observed a full spectrum of propaganda operations spanning both **overt, attributable state media**, and covert social media persona accounts. This places China among a handful of other state actors with similar capabilities and commitment. Further collaborative research is necessary to understand the tactics, techniques, and procedures used to ensure that future operations are promptly detected and disrupted.

6 Appendix

6.1 Labeling and Visualization Methodology

Labels were determined by the use of key hashtags across the four main topic categories. Final visualizations reflect the relationship between users in this dataset and the topics on which they created content. First, each tweet was labeled according to its use of one or more of the driving topical hashtags. With this information, users were subsequently categorized according to their labeled tweet activity. For example, if a user's set of tweets included labels Hong Kong, COVID, and Taiwan, that user would be labeled 'Hong Kong, Covid, Taiwan' and colored accordingly. Below, we have included the hashtags used to determine each topical label, as well as the expanded legend for each user node coloring and a monthly breakdown in tweet activity per topic.

Key Terms per Major Narrative	
Hong Kong	香港, 暴徒, 守護香港, 守护香港, 香港警察, 游行, 黑警, 废青, 香港暴徒, 香港遊行, 香港游行, 止暴製亂, 止暴制乱, 警察, 暴徒废青, 反修例, 港独, 逃犯条例, 顏色革命, 颜色革命
Guo Wengui	郭文贵, 郭骗子, 郭, 龚小夏, 班农, 郭文贵间谍, 郭文貴, 间谍
COVID	肺炎, 疫情, 武漢肺炎, 武汉肺炎, 武漢疫情, 武汉疫情, 新冠病毒, 中國加油, 中国加油, 冠状病毒疫情, coronavirus, COVID, COVID19
Taiwan	台灣, 台湾, 蔡英文, 韓國瑜, 韩国瑜, 民進黨, 民进党, 國民黨, 国民党, 台湾选举, 台灣選舉, 王立強, 王立强, Taiwan

Figure 20: Table showing the hashtags used to label tweets across the four major narrative themes.

Extended User Categorization Legend [Top 9]			
Rank	Coloring	Percentage of Users	Categorization
1		33.3%	Hong Kong
2		26.9%	Guo Wengui
3		18.1%	Hong Kong, Guo Wengui
4		9.7%	COVID
5		4.1%	Hong Kong, COVID
6		3.0%	Hong Kong, Guo Wengui, COVID
7		1.9%	Guo Wengui, COVID
8		0.8%	Taiwan, Wang Liqiang
9		0.5%	Wang Liqiang

(User categorizations ranks 10-20 comprised the remaining 1.7% of users in very small proportions)

Figure 21: Table with the top 9 user categorization and their proportion in the dataset, as well as their node coloring in final visualizations.

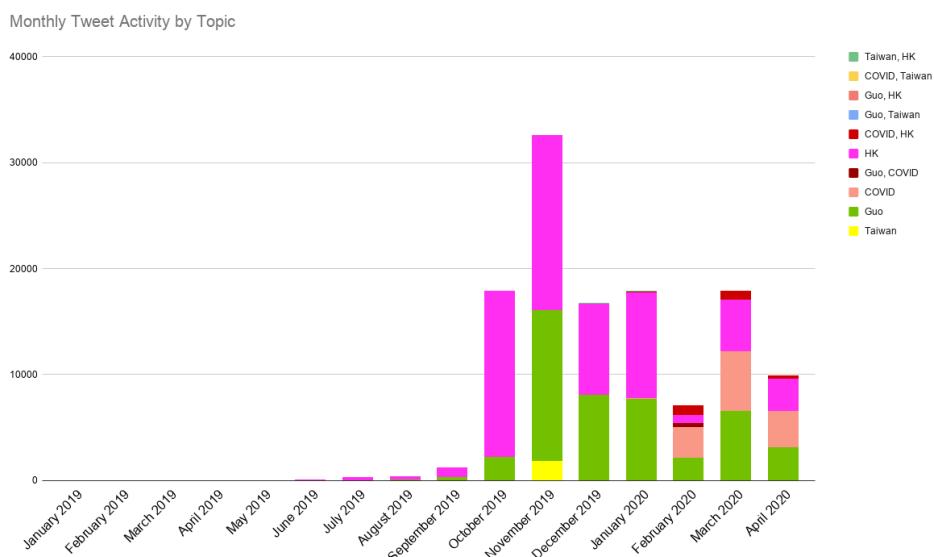


Figure 22: Tweets labeled as per the above 'Key Terms per Major Narrative' table to visualize the proportion of tweet activity on a monthly basis. Hong Kong and Guo Wengui evenly split activity through January 2020, at which point COVID-19 activity was added to evenly split tweet activity with Hong Kong and Guo Wengui content through the end of the dataset.



The Stanford Internet Observatory is a cross-disciplinary program of research, teaching and policy engagement for the study of abuse in current information technologies, with a focus on social media. The Observatory was created to learn about the abuse of the internet in real time, and to translate our research discoveries into training and policy innovations for the public good.