Tweeting through the Great Firewall

Preliminary analysis of PRC-linked information operations against the Hong Kong protests

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Introduction

On 19 August 2019, Twitter released data on a network of accounts that it identified as being involved in an information operation directed against the protests in Hong Kong. After a tip-off from Twitter, Facebook dismantled a smaller information network operating on its platform. That network has been identified as being linked to the Chinese Government.

At ASPI's International Cyber Policy Centre (ICPC), we have conducted a preliminary analysis of the dataset. Our research indicates that the information operation targeted at the protests appears to have been a relatively small and hastily assembled one rather than a sophisticated information campaign planned well in advance.

However, our research has also found that the accounts included in the information operation identified by Twitter were active in earlier information operations targeting political opponents of the Chinese Government, including an exiled billionaire, a human rights lawyer, a bookseller and protesters in mainland China. The earliest of those operations dates back to April 2017.

This is significant because—if the attribution to state-backed actors made by Twitter is correct— it indicates that actors linked to the Chinese Government may have been running covert information operations on Western social media platforms for at least two years.

Methodology

This analysis used a mixed-methods approach combining quantitative analysis of bulk Twitter data with qualitative analysis of tweet content.

The dataset for quantitative analysis comprised the tweets and accounts identified by Twitter as being associated with a state-backed information operation targeting Hong Kong and is available from Twitter.[1]

This dataset consisted of:

- account information about the 940 accounts Twitter suspended from its service (the oldest account was created in December 2007, although half of the accounts were created after August 2017)

- 3.6 million tweets from those accounts, ranging from December 2007 to May 2019.

The R statistics package was used for quantitative analysis, which informed phases of social network analysis (using Gephi)[2] and qualitative content analysis.[3]

Research limitations: ICPC does not have access to the relevant data to independently verify that these accounts are linked to the Chinese Government; this research proceeds on the assumption that Twitter's attribution is correct. It is also important to note that Twitter has not released the methodology by which this dataset was selected, and the dataset might not give a complete picture of Chinese state-linked information operations on Twitter.

# Information operation against Hong Kong protests

The data suggests that the information operation against the Hong Kong protests was hastily mounted, used repurposed spam accounts and lacked targeted messaging.

Indications of a hastily constructed campaign

Carefully crafted, long-running influence operations on social media will have tight network clusters that delineate target audiences. We explored the retweet patterns across the Twitter take-down data from June 2019—as the network was mobilising to target the Hong Kong protests—and didn't find a network that suggested sophisticated coordination. Topics of interest to the People's Republic of China (PRC) emerged in the dataset from mid-2017, but there was little attempt to target online communities with any degree of psychological sophistication.

There have been suggestions that Taiwanese social media, during recent gubernatorial elections, had been manipulated by suspicious public relations contractors operating as proxies for the Chinese Government.[4] It's notable that the network targeting the Hong Kong protests wasn't cultivated to influence targeted communities; it, too, acted like a marketing spam network. The accounts didn't attempt to behave in ways that would have integrated them into—and positioned them to influence— online communities. This lack of coordination was reflected in the messaging. Audiences weren't steered into self-contained disinformation ecosystems external to Twitter; nor were hashtags used to build audience and then drive the amplification of specific political positions. As this network was mobilising against the Hong Kong protests, several nodes in the time-sliced retweet data (Figure 1) were accounts to promote the sex industry—accounts that would have gained attention because of the nature of their content. These central nodes weren't accounts that had invested in cultivating engagement with target audiences (beyond their previous marketing function). The accounts spammed retweets at others outside the network in attempts to get engagement rather than working together to drive the amplification of a consistent message.

Figure 1: Retweet network from June 2019, derived from Twitter's take-down data, showing the significant presence of likely pornography-related accounts within the coordinated network that targeted the Hong Kong protests
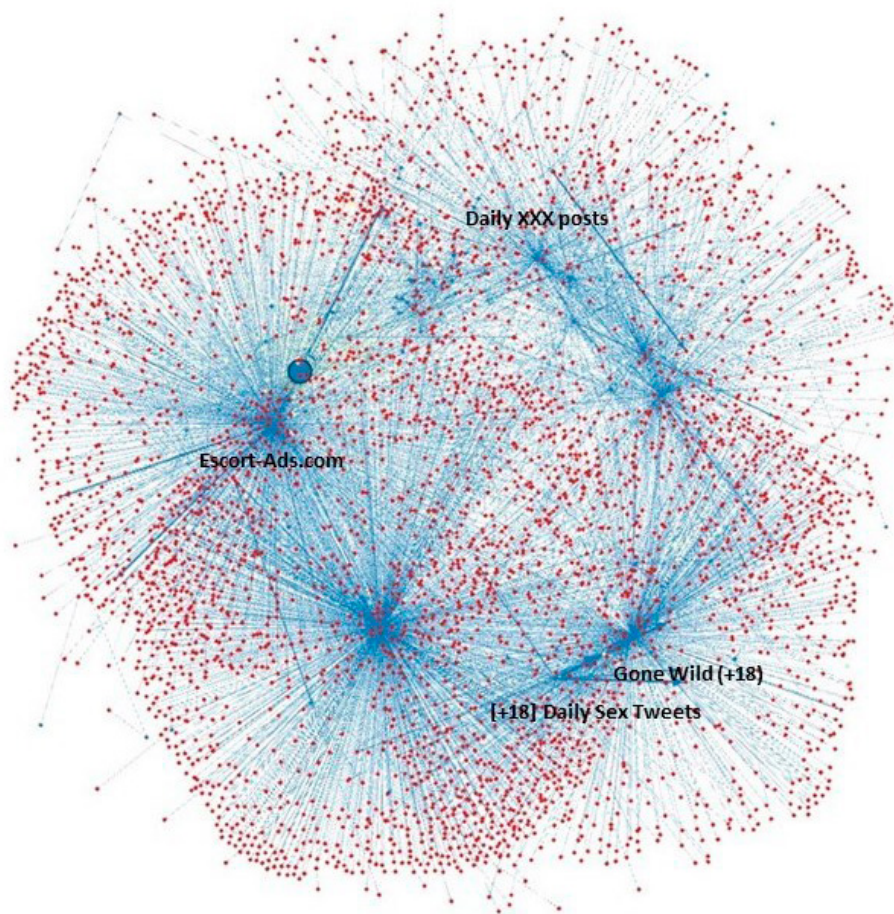
This was a blunt-force influence operation using spam accounts to disseminate messaging and leveraging an influence-for-hire network. The predominant use of the Chinese language suggests that the target audiences were Hong Kongers and the overseas diaspora.

This operation is in stark contrast to the efforts of Russia's Internet Research Agency (IRA) to target US political discourse, particularly through 2015 to 2017.

The Russian effort displayed well-planned coordination. Analysis of IRA account data has shown that networks of influence cluster around identity- or issue-based online communities.[5] IRA accounts disseminated messaging that inflamed both sides of the debates on controversial issues in order to widen the divide between protagonist communities. High-value and long-running personas cultivated influence within US political discourse. Those accounts were retweeted by political figures and quoted by media outlets.

The IRA sent four staff to the US to undertake 'market research' as the agency geared up its election-meddling campaign.[6] The IRA campaign displayed a clear understanding of audience segmentation, colloquial language, and the ways in which online communities framed their identities and political stances.

In contrast, the PRC-linked operation has been clumsily repurposed and reactive. Freedom of expression on China's domestic internet is framed by a combination of top-down technocratic control managed by the Cyberspace Administration of China[7] and devolved, crowdsourced content regulation by government entities, industry and Chinese netizens.[8] Researchers have suggested that Chinese Government efforts to shape sentiment on the domestic internet go beyond those approaches. One study estimated that the Chinese Government pays for as many as 448 million inauthentic social media posts and comments a year.[9] The aim is to distract the population from social mobilisation and collective forms of protest action. This approach to manipulating China's domestic internet appears to be much less effective on Western social media platforms that aren't bounded by state control.

Yet, the Chinese Communist Party (CCP) continues to use blunt efforts to grow the reach, impact and influence of its narratives abroad. Elements of the party propaganda apparatus—including the foreign media wing of the United Front Work Department of the Central Committee—have issued (as recently as 16 August) tenders for contracts to grow their international influence on Twitter, with specific targets for numbers of followers in particular countries.[10]

In the longer term, China's investments in artificial intelligence may lift its capacity to target and manipulate international social media audiences. However, the Hong Kong operation lacks the sophistication of those deployed by other significant state proponents of cyber-enabled influence operations, particularly Iran and Russia, which have demonstrated the capacity to operate with some degree of subtlety across linguistic and cultural boundaries.

This was a quintessential authoritarian approach to influence: one-way floods of messaging, aimed primarily at Hong Kongers.

Use of repurposed spam accounts

Many of the accounts included in the Twitter dataset are repurposed spam or marketing accounts. Such accounts are readily and cheaply available for purchase from resellers, often for a few dollars or less. Accounts in the dataset have tweeted in a variety of languages, including Indonesian, Arabic, English, Korean, Japanese and Russian, and on topics ranging from British football to Indonesian tech support, Korean boy bands and pornography.

Figure 2 shows the language used in tweets over time (although Twitter does not appear to consistently detect language in tweets before 2013). The dataset includes accounts tweeting in a variety of languages over a long period. Chinese-language tweets appear more often after mid-2017.

Figure 2: Languages used in tweets over time
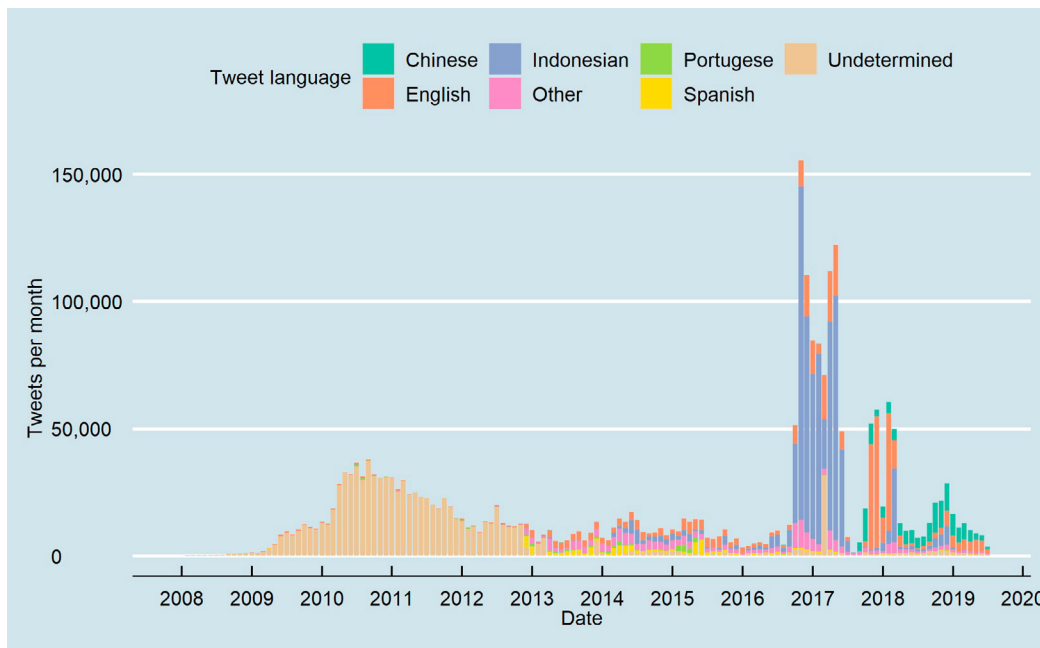
Figure 3 shows the self-reported locations of the accounts suspended by Twitter, colour-coded for the language they tweeted in. These locations do not reliably indicate the true location of the account-holder, but in this dataset there is a discrepancy between language and location. The self-reported locations are likely to reflect the former purpose of the accounts as spam and marketing bots.

Figure 3: Self-reported locations of the accounts suspended by Twitter

They report their locations in developed markets, where the consumers they're targeting are located, in order to make the account appear more credible, even if the true operators of the account are based somewhere else entirely.

Evidence of reselling is clearly present in the dataset. More than 630 tweets within the dataset contain phrases such as 'test new owner', 'test', 'new own', and so on. As an example, the account @SamanthxBerg tweeted in Indonesian on 2 October 2016, 'lelang acc f/t 14k/135k via duit. minat? rep aja'—meaning that the @SamanthxBerg account with 14,000 followers and following 135,000 users was up for auction Figure 4). The next tweet on 6 October 2016 reads 'i just become the new owner, wanna be my friend?.'

Figure 4: An account for sale

| tweetid	782380635990200320
Time stamp	2016-10-02 00:44:00 UTC
userid	769790067183190016
User display name	阿丽木琴
User screen name	SamanthxBerg

The use of these kinds of accounts suggests that the operators behind the information operation didn't have time to establish the kinds of credible digital assets used in the Russian campaign targeting the 2016 US presidential election. Building that kind of 'influence infrastructure' takes time, and the situation in Hong Kong was evolving too rapidly, so it appears that the actors behind that campaign effectively took a short cut by buying established accounts with many followers.

Timeline of activity

The amount of content directly targeting the Hong Kong protests makes up only a relatively small fraction of the total dataset released by Twitter, consisting of just 112 accounts and approximately 1,600 tweets, of which the vast majority were in Chinese; a much smaller number were in English.

Content relevant to the current crisis in Hong Kong appears to have begun on 14 April 2019, when the account @HKpoliticalnew (profile description: Love Hong Kong, love China. We should pay attention to current policies and people's livelihood. 愛港、愛國，關注時政、民生。) tweeted about the planned amendments to the Extradition Bill. Tweets in the released dataset mentioning Hong Kong continued at the pace of a few tweets every few days, steadily increasing over April and May, until a significant spike occurred on 14 June—the day of a huge protest in which more than a million Hong Kongers (1 in 7) marched in protest against the bill (Figure 5).[11]

Figure 5: Hong Kong related tweets per day, 14 April to 25 July 2019
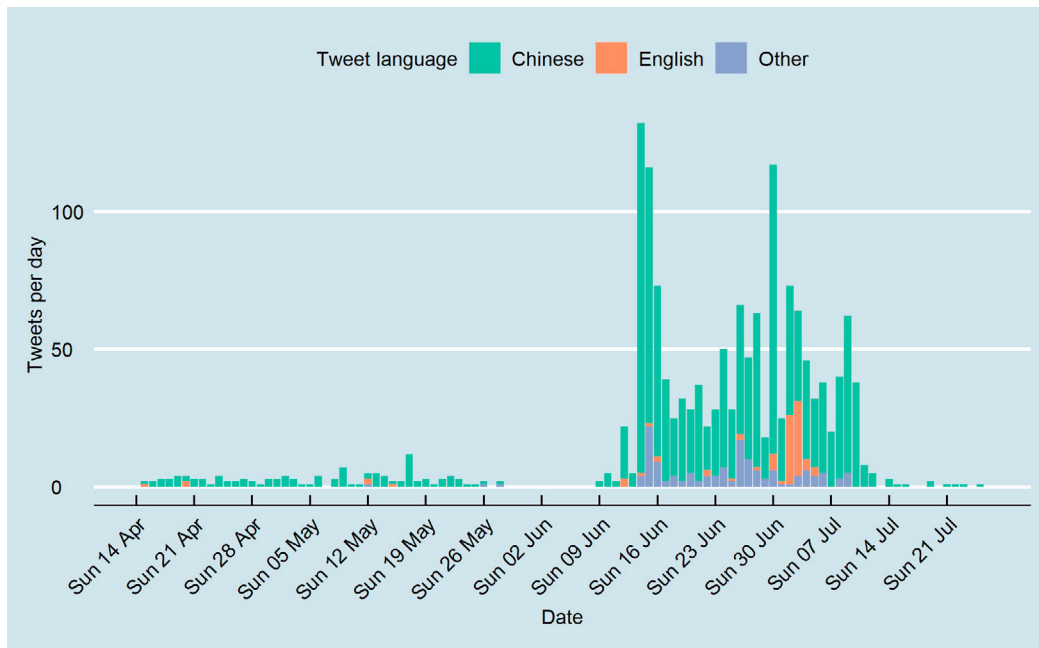
Thereafter, spikes in activity correlated with significant developments in the protests. A major spike occurred on 1 July, when protesters stormed the Legislative Council building. This was also the start of the English-language tweets, presumably in response to the growing international interest in the Hong Kong protests. Relevant tweets then appear to have tapered off in this dataset, ending on 25 July.

It's worthwhile noting that the tapering-off in this dataset might not reflect the tapering-off of the operation itself. Instead, it's possible that it reflects a move away from this hastily constructed information operation to more fully developed digital assets that haven't been captured in this data.

Lack of targeted messaging and narratives

One of the features of well-planned information operations is the ability to subtly target specific audiences. By contrast, the information operation targeting the Hong Kong protests is relatively blunt.

Three main narratives emerge:

- Condemnation of the protesters (Figure 9)
- Support for the Hong Kong police and the 'rule of law' (Figure 6, Figure 8)
- Conspiracy theories about Western involvement in the protests (Figure 7).

Figure 6: Support for the 'rule of law'

tweetid	1139524030371733504
Time stamp	2019-06-14 13:24:00 UTC
userid	r+QLQEgpn4eFuN1qhvccxtPRmBJk3+rfO3k9wmPZTQI=
User display name	r+QLQEgpn4eFuN1qhvccxtPRmBJk3+rfO3k9wmPZTQI=
User screen name	r+QLQEgpn4eFuN1qhvccxtPRmBJk3+rfO3k9wmPZTQI=

@uallaoeea 《逃犯条例》的修改，只会让香港的法制更加完备，毕竟法律是维护社会公平正义的基石。不能默认法律的漏洞用来让犯罪分子逃避法律制裁而不管。—14 June 2019

Translated: 'The amendment to the Fugitive Offenders Ordinance will only make Hong Kong's legal system more complete. After all, the law is the cornerstone for safeguarding fairness and justice in society. We can't allow loopholes in the legal system to allow criminals to escape the arm of the law.'

Figure 7: Conspiracy theories
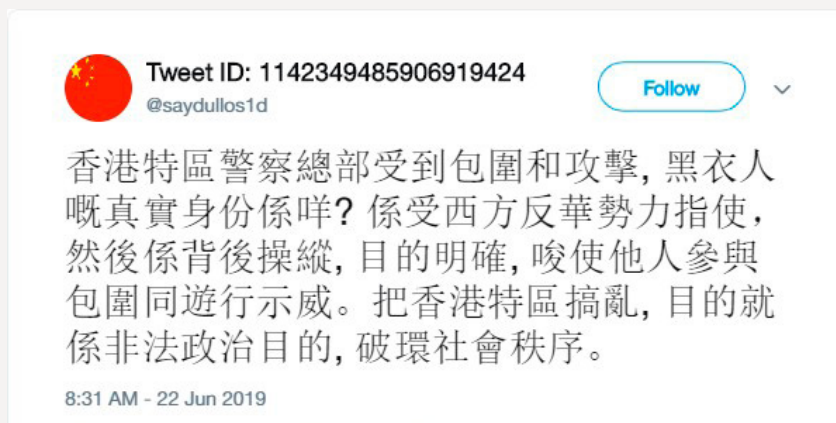
tweetid	1142349485906919424
Time stamp	2019-06-22 08:31:00 UTC
Userid	2156741893
User display name	披荆斩棘
User screen name	saydullos1d

香港特區警察總部受到包圍和攻擊, 黑衣人嘅真實身份係咩? 係受西方反華勢力指使，然後係背後操縱, 目的明確, 唆使他人參與包圍同遊行示威。把香港特區搞亂, 目的就係非法政治目的, 破環社會秩序。—22 June 2019

Translated: 'Hong Kong SAR police headquarters were surrounded and attacked. Who were the people wearing black? They were acting under the direction of Western anti-China forces. They're manipulating things behind the scenes, with a clear purpose to instigate others to participate in the demonstration and the encirclement. They're bringing chaos to Hong Kong SAR with an illegal political goal and disrupting the social order.'

It's important to note that this was written in traditional Chinese characters and switched between Standard Chinese and Cantonese, suggesting that the author was a native Mandarin speaker but that their target audience was Cantonese speakers in Hong Kong.

Figure 8: The rule of law

tweetid	1147398800786382848
Time stamp	2019-07-06 06:56:00 UTC
Userid	886933306599776257
User display name	lingmoms
User screen name	lingmoms

無底線的自由，絕不是幸事；不講法治的民主，只能帶來禍亂。香港雖有不錯的家底，但經不起折騰，經不起內耗，惡意製造對立對抗，只會斷送香港前途。法治是香港的核心價值，嚴懲違法行為，是對法治最好的維護，認為太平山下應享太平。—6 July 2019

Translated: 'Freedom without a bottom line is by no means a blessing; democracy without the rule of law can only bring disaster and chaos. Although Hong Kong has a good financial background, it can't afford to vacillate. It can't take all of this internal friction and maliciously created agitation, which will only ruin Hong Kong's future. The rule of law is the core value of Hong Kong. Severe punishment for illegal acts is the best safeguard for the rule of law. Peace should be enjoyed at the foot of The Peak.'

Note that this tweet is also written in Standard Chinese using traditional Chinese characters. The original text says 'at the foot of Taiping mountain', meaning Victoria Peak, which is more commonly referred to in Hong Kong as 'The Peak' (山頂). However, the use of 'Taiping mountain' instead of 'The Peak' to refer to the feature is a deliberate pun, because Taiping means 'great peace']

Figure 9: Vilifying opponents

tweetid	1152024329325957120
Time stamp	2019-07-19 01:16:00 UTC
Userid	58615166
User display name	流金岁月
User screen name	Licuwangxiaoyua

#HongKong #HK #香港 #逃犯条例 #游行 古话说的好，听其言而观其行。看看那些反对派和港独分子，除了煽动上街游行、暴力冲击、袭警、扰乱香港社会秩序之外，就没做过什么实质性有利于香港发展的事情。反对派和港独孕育的"变态游行"这个怪胎，在暴力宣泄这条邪路上愈演愈烈。—19 July 2019

Translated: '#HongKong #HK #HongKong #FugitiveOffendersOrdinance #Protests The old Chinese saying put it well: "Judge a person by their words, as well as their actions." Take a look at those in the opposition parties and the Hong Kong independence extremists. Apart from instigating street demonstrations, violent attacks, assaulting police officers and disturbing the social order in Hong Kong, they have done nothing that is actually conducive to the development of Hong Kong. This abnormal foetus of a "freak demonstration" that the opposition parties and Hong Kong independence people gave birth to is becoming more violent as it heads down this evil road.'

This approach of vilifying opponents and emphasising the need for law and order as a justification for authoritarian behaviour is consistent with the narrative approaches adopted in earlier information operations contained within the dataset.

# Earlier information operations against political opponents

Our research has uncovered evidence that the accounts identified by Twitter were also engaged in earlier information campaigns targeting opponents of the Chinese Government.

It appears likely that those information operations were intended to influence the opinions of Chinese diasporas, perhaps in an attempt to undermine critical coverage in Western media of issues of interest to the Chinese Government. This is supported by a notice released by China News Service, which is a Chinese-language media company owned by the United Front Work Department that targets the Chinese diaspora, requesting tenders to expand its Twitter reach.

Campaign against Guo Wengui

The most significant and sustained of the earlier information operations targets Guo Wengui, an exiled Chinese businessman who now resides in the US (Figure 10). The campaign directed at Guo is by far the most extensive campaign in the dataset and is significantly larger than the activity directed at the Hong Kong protests. This is the earliest activity we've identified that aligns with PRC interests.

Figure 10: Tweets per month in an information operation targeting Guo Wengui from 2017 to the end of the dataset in July 2019
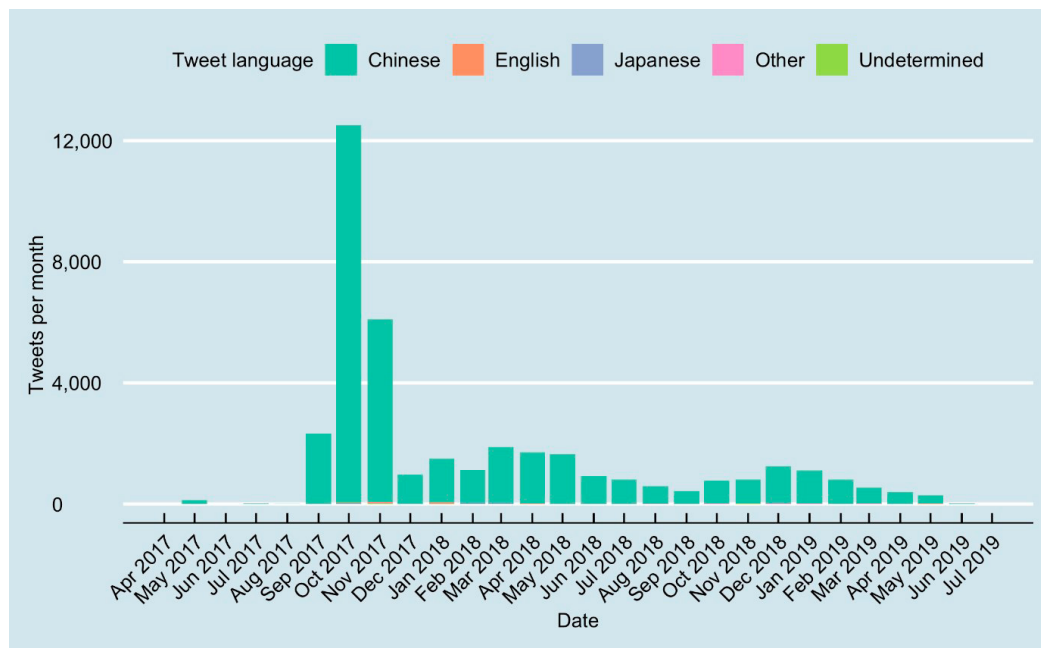
Guo, also known as Miles Kwok, fled to the US in 2017 following the arrest of one of his associates, former Ministry of State Security Vice Minister Ma Jian. Guo has made highly public allegations of corruption against senior members of the Chinese Government. The government in turn accused Guo of corruption, prompting an Interpol red notice for his arrest and return to China.[12] Guo has become a vocal opponent of the Chinese Government[13] despite having himself been accused of spying on its behalf in July 2019.[14]

Within the Twitter Hong Kong dataset, the online information campaign targeting Guo began on 24 April 2017, five days after the Interpol red notice was issued at the request of the Chinese Government, and continued until the end of July 2019. Guo continues to be targeted on Twitter, although it's unclear whether the PRC government is directly involved in the ongoing effort.

Figure 11 shows that tweet activity appears to take place during the working week (except Wednesdays), suggesting that this activity may be professional rather than authentic personal social media use.

Figure 11: Tweets per day mentioning Guo Wengui, 23 April to 4 May 2017
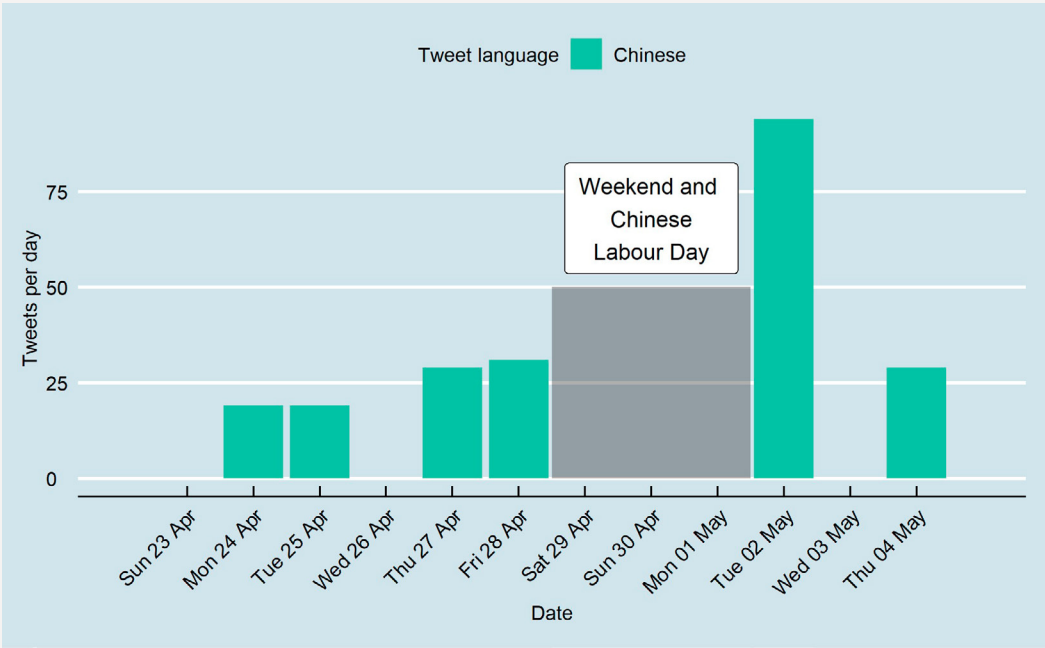
In total, our research identified at least 38,732 tweets from 618 accounts in the dataset that directly targeted Guo. Those tweets consist largely of vitriolic attacks on his character, ranging from highly personal criticisms to accusations of criminality and treachery against China and criticisms of his relationship with controversial US political figure Steve Bannon (Figure 12 and Figure 13).

Figure 12: Guo Wengui and Steve Bannon

Tweet ID: 1123765841919660032
@futuretopic
Follow

郭文贵用钱收买班农，一方面想找靠山，一方面想继续为自己的骗子生涯增加点砝码，其实班农只是爱财并非真想和郭文贵做什么，很快双方会发现对方都 是在欺骗自己，那时必将反目成 仇.

1:47 AM - 2 May 2019

tweetid	1123765841919660033
Time stamp	2019-05-02 01:47:00 UTC
Userid	4752742142
User display name	漂泊一生
User screen name	futuretopic

"郭文贵用钱收买班农，一方面想找靠山，一方面想继续为自己的骗子生涯增加点砝码，其实班农只是爱财并非真想和郭文贵做什么， 很快双方会发现对方都 是在欺骗自己，那时必将反目成仇." —2 May 2019

Translated: 'Guo Wengui used his money to buy Bannon. On the one hand, he needed his backing. On the other hand, he wanted to continue to add weight to his career as a swindler. In fact, Bannon just loves money and doesn't really want to do anything with Guo Wengui. Soon both sides will find out that they're both deceiving the other, and then they'll turn into enemies.'

Figure 13: 'Like crazy'

Tweet ID: 1153122108655861760
@asdwyzkexa
Follow

近日的郭文贵继续自己自欺欺人的把戏，疯狂的直播，疯狂的欺骗，疯狂鼓动煽风点火，疯狂的鼓吹自己所谓的民主，鼓吹自己的"爆料革命"。但其越是疯狂，越是难掩日暮西山之态，无论其吹的再如何天花乱坠，也终要为自己的过往负责，亲自画上句点.

1:58 AM - 22 Jul 2019

tweetid	1153122108655861760
Time stamp	2019-07-22 01:58:00 UTC
Userid	1368044863
User display name	asdwyzkexa
User screen name	asdwyzkexa

'近日的郭文贵继续自己自欺欺人的把戏，疯狂的直播，疯狂的欺骗，疯狂鼓动煽风点火，疯狂的鼓吹自己所谓的民主，鼓吹自己的"爆料革命"。但其越是疯狂，越是难掩日暮西山之态，无论其吹的再如何天花乱坠，也终要为自己的过往负责，亲自画上句点。' —22 July 2019

Translated: 'Lately, Guo Wengui has continued to use his cheap trick of deceiving himself and others with a crazy live-stream where he lied like crazy, incited and fanned the flames like crazy, and agitated for his so-called democracy like crazy—enthusiastically promoting his "Expose Revolution". But the crazier he gets, the harder it is to hide the fact that the sun has already set on him. It doesn't matter how much he embellishes things; eventually, he will have to take responsibility and put an end to all of this himself.'

Spikes in activity in this campaign appear to correspond with significant developments in the timeline of Guo's falling out with the Chinese Government (Figure 14). For example, a spike around 23 April 2018 correlates with the publishing of a report by the *New York Times* exposing a complex plan to pull Guo back to China with the assistance of the United Arab Emirates and Trump fundraiser Elliott Broidy.[15]

Figure 14: 'You can't hide the truth'
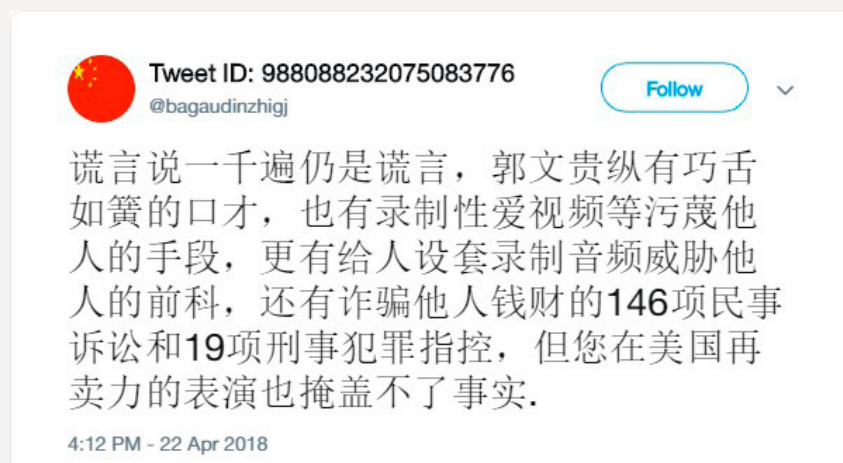
tweetid	988088232075083776
Time stamp	2018-04-22 16:12:00 UTC
Userid	908589031944081408
User display name	如果
User screen name	bagaudinzhigj

''谎言说一千遍仍是谎言，郭文贵纵有巧舌如簧的口才，也有录制性爱视频等污蔑他人的手段，更有给人设套录制音频威胁他人的前科，还有诈骗他人钱财的146项民事诉讼和19项刑事犯罪指控，但您在美国再卖力的表演也掩盖不了事实.'—22nd April 2018

Translated: 'Even if a lie is repeated a thousand times, it's still a lie. Guo Wengui is an eloquent smooth talker and uses sex tapes and other methods to slander people. He also has a criminal record for trying to threaten and set people up with recorded audio. He has 146 civil lawsuits and 19 criminal charges for swindling other people's money. No matter how much effort you put in in the United States, you still can't hide the truth.'

This tweet was repeated 41 times by this user from 7 November 2017 to 15 June 2018, at varying hours of the day, but at only 12 or 42 minutes past the hour, suggesting an automated or prescheduled process:

7:12	0:12	8:42	17:12	1:42	10:12
13:12	21:42	6:12	14:42	23:12	7:42
20:12	4:42	13:12	21:42	6:12	14:42
17:42	2:12	10:42	4:12	12:42	21:12
11:42	20:12	4:42	3:12	18:42	14:12
18:42	3:12	11:42	0:42	16:12	5:42
16:12	0:42	9:12	7:42	23:12	

Like the information operation targeting the Hong Kong protests, the campaign targeting Guo is primarily in the Chinese language. There are approximately 133 tweets in English, many of which are retweets or duplicates. On 5 November 2017, for example, 27 accounts in the dataset tweeted or retweeted: '#郭文贵 #RepatriateKwok. #Antiasylumabused. sooner or later, your fake mask will be revealed' (Figure 15).

Figure 15: Volume of tweets mentioning Guo Wengui from 14 April to 29 April 2019
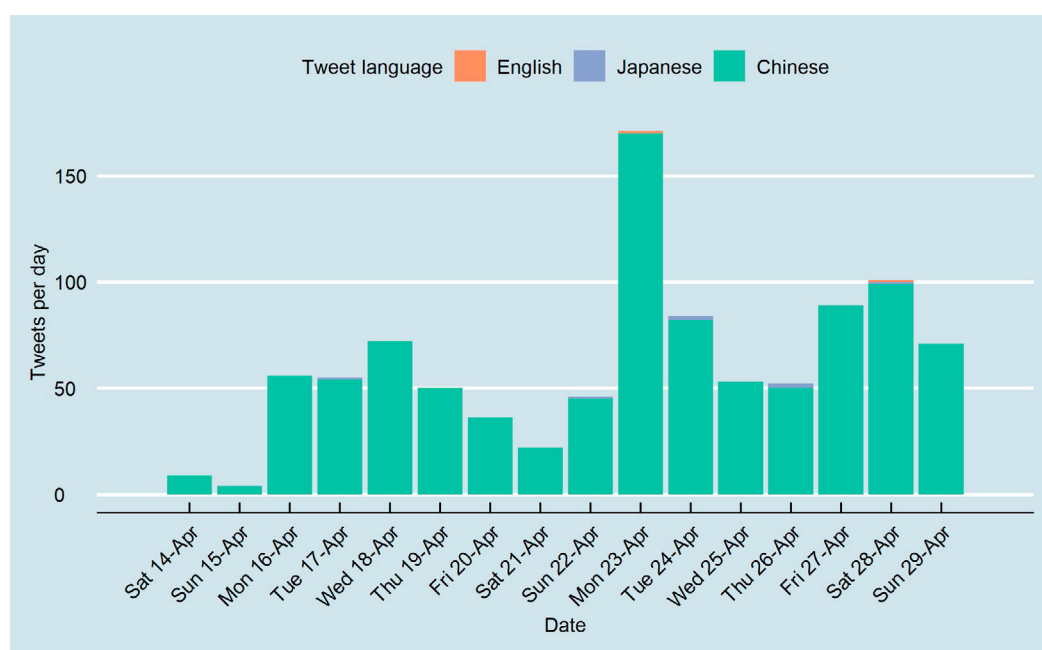
As the Hong Kong protests began to increase in size and significance, the information operations against Guo and the protests began to cross over, and some accounts directed tweets at both Guo and the protests (Figure 16).

Figure 16: Information operations intersect

tweetid	1148407166920876032
Time stamp	2019-07-09 01:42:00 UTC
Userid	886933306599776257
User display name	lingmoms
User screen name	lingmoms

'唯恐天下不乱、企图颠覆香港的郭文贵不仅暗中支持香港占中分子搞暴力破坏，还公开支持暴力游行示威，难道这一小撮入狱的暴民就是文贵口中的"香港人"?'- 9 July 2019

Translated: 'Guo Wengui, who fears only a world not in chaos and schemes to topple Hong Kong, is not only secretly supporting the violent and destructive Occupy extremists in Hong Kong, he's also openly supporting violent demonstrations. Is this small mob of criminals the "Hong Kong people" Guo Wengui keeps talking about?'

The dataset provided by Twitter ends in late July 2019, but all indications suggest that the information campaign targeting Guo will continue.

Campaign against Gui Minhai

Although the campaign targeting Guo Wengui is by far the most extensive in the dataset, other individuals have also been targeted.

One is Gui Minhai, a Chinese-born Swedish citizen. Gui is one of a number of Hong Kong-based publishers specialising in books about China's political elite. They disappeared under mysterious circumstances in 2015.[16] It was later revealed that Gui had been taken into Chinese police custody. The official reason for his detention is his role in a fatal 2003 traffic accident, in which a schoolgirl was killed. Gui has been in and out of detention since 2015 and has made a number of televised confessions,[17] which many human rights advocates believe to have been forced by the Chinese Government.[18]

The information operation targeting Gui Minhai is relatively small, involving 193 accounts and at least 350 tweets. With some exceptions, the accounts used in the activity directed against Gui appear to be primarily 'clean' accounts created specifically for use in information operations, unlike the repurposed spam accounts used in the activity targeted at Hong Kong.

The campaign ran for one month, from 23 January to 23 February 2018 (Figure 17). The preciseness of the timing is indicative of an organised campaign rather than authentic social media activity. The posting activity also largely corresponded with the working week, with breaks for weekends and holidays such as Chinese New Year.

Figure 17: Tweets per day targeted at Gui Minhai
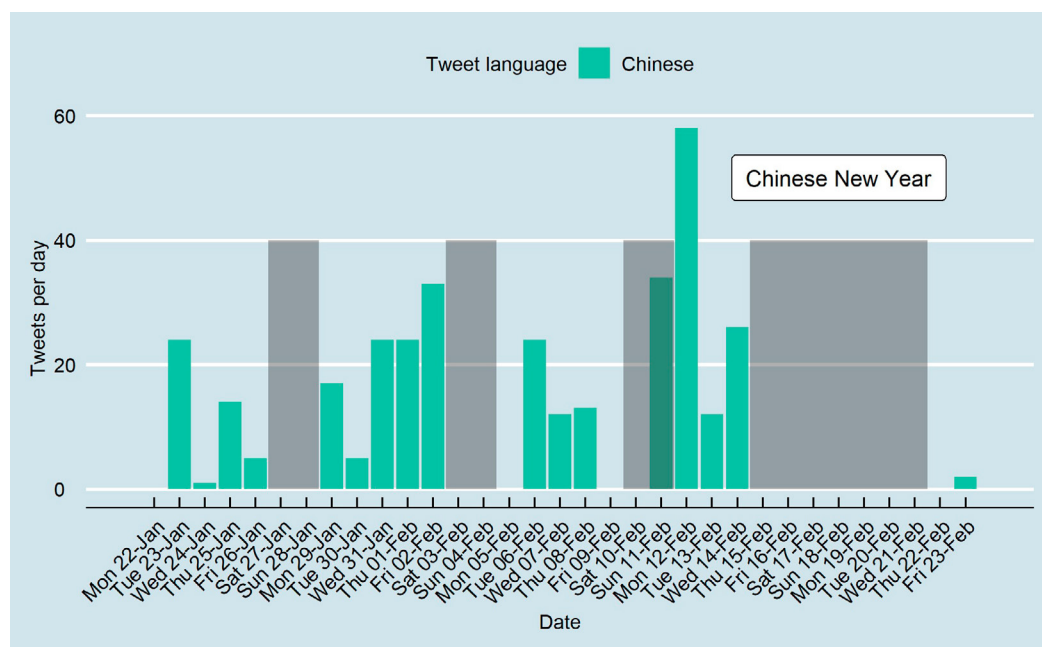
Note: Weekends and public holidays are indicated by grey shading.

The campaign started on 23 January 2018, the day on which news broke that Chinese police had seized Gui from a Beijing-bound train while he was travelling with Swedish diplomats to their embassy.[19] The campaign then continued at a slower pace across several weeks, ending on 23 February 2018. The tweets are entirely in the Chinese language and emphasise Gui's role in the traffic accident, painting him as a coward for attempting to leave the country and blaming Western media for interfering in the Chinese criminal justice process. Some also used Gui's name as a hashtag (figures 18 and 19).

Figure 18: 'Another bad choice'

tweetid	956700365289807872
Time stamp	2018-01-26 01:28:00 UTC
Userid	930592773668945920
User display name	赵祥
User screen name	JonesJones4780

'#桂民海 因为自己一次醉驾，让一个幸福家庭瞬间支离破碎，这令桂敏海痛悔不已。但是，他更担心自己真的因此入狱服刑。于是，在法院判决后不久、民事赔偿还未全部执行完的时候，桂敏海做出了另一个错误选择。'—26 January 2018

Translation: '#GuiMinhai deeply regrets that a happy family was shattered because of his drunk driving. However, he's even more worried that he's actually going to have to serve a prison sentence for it. Therefore, not long after the court's decision and before any civil compensation was paid out, Gui Minhai made another bad choice.'

Figure 19: 'Just a performance'
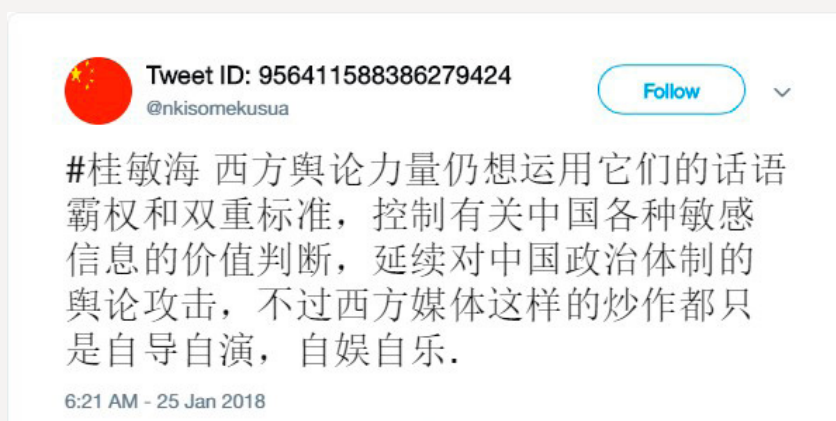
tweetid	956411588386279424
Time stamp	2018-01-25 06:21:00 UTC
Userid	1454274516
User display name	熏君
User screen name	nkisomekusua

'#桂敏海 西方舆论力量仍想运用它们的话语霸权和双重标准，控制有关中国各种敏感信息的价值判断，延续对中国政治体制的舆论攻击，不过西方媒体这样的炒作都只是自导自演，自娱自乐.'—25 January 2018

Translation: '#GuiMinhai Western public opinion forces still want to use their discourse hegemony and double standards to control value judgements of all kinds of sensitive information about China and are continuing their public opinion attacks on the Chinese political system. However, this kind of hype in the Western media is just a performance they're doing for themselves for their own personal entertainment.'

Others amplify the messages of Gui's 'confession',[20] claiming that he chose to hand himself in to police of his own volition due to his sense of guilt (Figure 20).

Figure 20: 'He chose to return to China'

tweetid	959276160038289408
Time stamp	2018-02-02 04:03:00 UTC
Userid	898580789952118784
User display name	雪芙
User screen name	Ryy7v3wQkXnsGO8

'#桂敏海 父亲去世他不能奔丧这件事情，对桂敏海触动很大。他的母亲也80多岁了，已经是风烛残年，更让他百般思念、日夜煎熬，心里总是有一种很强烈的愧疚不安。所以他选择回国自首.'—2 February 2018

Translation: 'The death of #GuiMinhai's father and the fact he couldn't return home for the funeral greatly affected him. His mother is also over 80 years old and is already in her twilight years, causing him to suffer day and night in every possible way. There was always a strong sense of guilt and uneasiness in his heart. So he chose to return to China and give himself up.'

It seems likely that this was a short-term campaign intended to influence the opinions of overseas Chinese who might see reports of Gui's case in international media.

Campaign against Yu Wensheng

On precisely the same day as the information operation against Gui started, another mini-campaign appears to have been launched. This one was aimed against human rights lawyer and prominent critic of the CCP, Yu Wensheng.

Yu was arrested by Chinese police while walking his son to school on 19 January 2018.[21] Only hours before, Yu had tweeted an open letter critical of the Chinese Government and called for open elections and constitutional reform.[22] Shortly after, an apparently doctored video was released, raising questions about whether Chinese authorities were attempting to launch a smear campaign against Yu.[23]

In this dataset, tweets targeting Yu Wensheng began on 23 January 2018 (Figure 21)—the same day as the campaign against Gui Minhai—and continued through until 31 January (only four tweets took place after that, the latest on 10 February 2018). This was a small campaign, consisting of roughly 218 tweets from 80 accounts, many of which were the same content amplified across those accounts. As with Gui, Yu's name was often used as a hashtag.

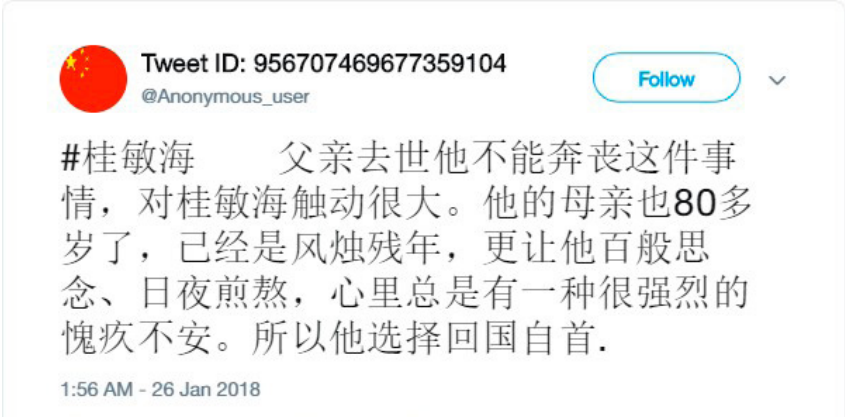**Figure 21: Tweets per day targeting Yu Wensheng**
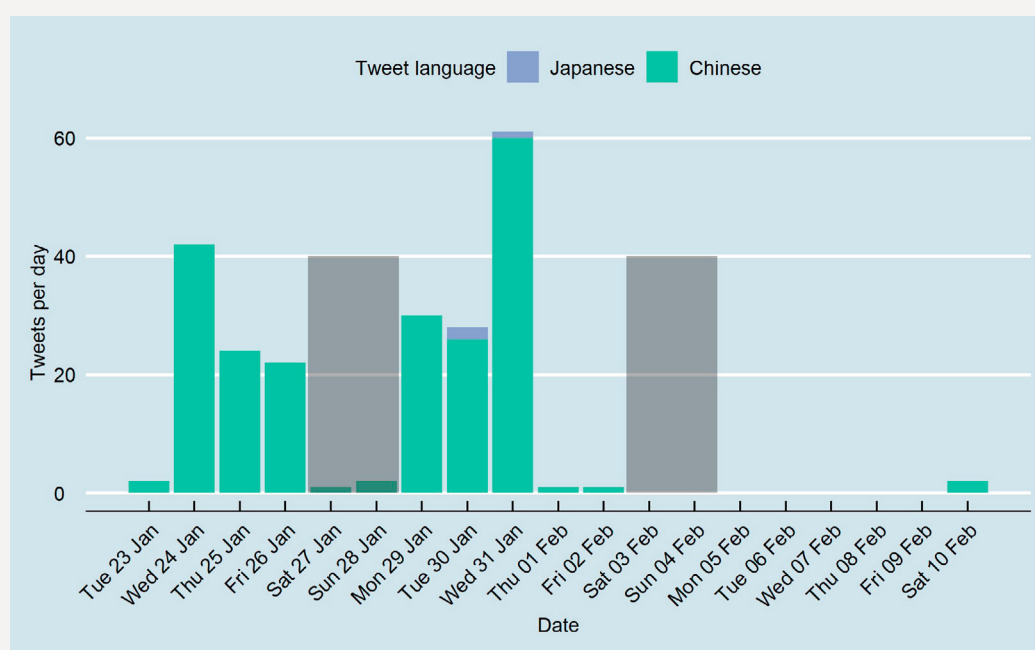
Note: Selected weekends are highlighted in grey.

The content shared by the campaign was primarily condemning Yu for his alleged violence against the police, as shown by the doctored video (Figure 22).

Figure 22: 'Obstructing government administration'

tweetid	956707469677359104
Time stamp	2018-01-26 01:56:00
Userid	0jFZp2sQdCYj8hUveyN4Llxe2UvFbQgTqxaymZihMM0
User display name	0jFZp2sQdCYj8hUveyN4Llxe2UvFbQgTqxaymZihMM0
User screen name	0jFZp2sQdCYj8hUveyN4Llxe2UvFbQgTqxaymZihMM0

'#余文生 1月19日，一余姓男子在接受公安机关依法传唤时暴力袭警致民警受伤，被公安机关依法以妨害公务罪刑事拘留。澎湃新闻从北京市公安机关获悉，涉案男子系在被警方强制传唤时，先后打伤、咬伤两名民警.'—26 January 2018.

Translation: '#YuWensheng On January 19, a man surnamed Yu violently assaulted a police officer while receiving a legal summons from the public security bureau, and was arrested for obstructing government administration. Beijing Public Security Bureau told *The Paper* [a Chinese publication] that the man involved in the case wounded the officers repeatedly by biting them when he was being forcibly summoned by the police.'

As with the other campaigns, however, accusations of supposed Western influence were also notable (figures 23 and 24).
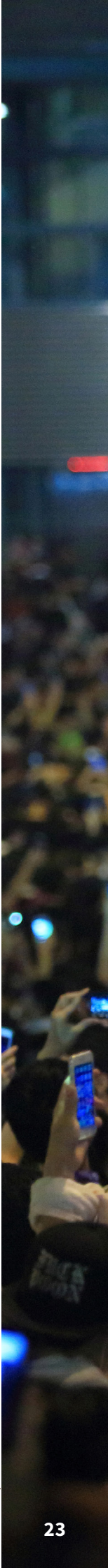
Figure 23: A 'so-called rights lawyer'
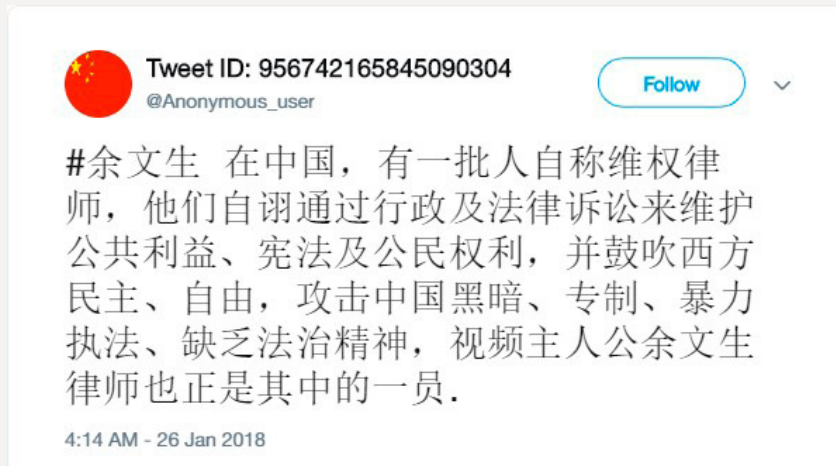
tweetid	956742165845090304
Time stamp	2018-01-26 04:14:00 UTC
Userid	2l1eDka0eiClBUYoDXlwYaKcUaeelnz44aDM9OJRM
User display name	2l1eDka0eiClBUYoDXlwYaKcUaeelnz44aDM9OJRM
User screen name	2l1eDka0eiClBUYoDXlwYaKcUaeelnz44aDM9OJRM

'#余文生 在中国，有一批人自称维权律师，他们自诩通过行政及法律诉讼来维护公共利益、宪法及公民权利，并鼓吹西方民主、自由，攻击中国黑暗、专制、暴力执法、缺乏法治精神，视频主人公余文生律师也正是其中的一员.'—26 January 2018

Translation: '#YuWensheng It can be seen from Yu Wensheng's past activities that he is one of the so-called rights lawyers in China. Yu Wensheng thinks that with the support of foreign media and rights lawyers, he can become a hero and that, naturally, some people will cheer for him. Little did he know that this time the police were wearing a law enforcement recording device that they used to record an overview of the incident and quickly published it to the world. Yu's ugly face was undoubtedly revealed to the public.'

Figure 24: 'The star of the video'

tweetid	958222061972832256
Time stamp	2018-01-30 06:15:00 UTC
Userid	Kmto+XqJ6hcowk0GvAGVEasNxHUW11beLphANrm3uhE=
User display name	Kmto+XqJ6hcowk0GvAGVEasNxHUW11beLphANrm3uhE=
User screen name	Kmto+XqJ6hcowk0GvAGVEasNxHUW11beLphANrm3uhE=

'#余文生 从余文生过去的活动中可以看到，他是国内所谓维权律师中的一员。余文生认为身后有国外媒体以及维权律师群体的支持，他就能成为英雄，自然有人为他摇旗呐喊。殊不知这次警察佩戴了执法记录仪，录下了事件的概况，并迅速公布于世，余的丑陋嘴脸在公众暴露无疑.'—30 January 2018.

Translation: '#YuWensheng In China, a group of people claim to be rights defenders. They claim to protect the public interest, constitution and civil rights through administrative and legal proceedings. They advocate for Western democracy and freedom and attack China's darkness, autocracy, violent law enforcement and the lack of the rule of law. Lawyer Yu Wensheng, the star of the video, is also one of them.'

As with the other campaigns seen in this dataset, it seems probable that the motivation behind this effort was to convince overseas Chinese to believe the CCP's version of events, bolstering the doctored video of Yu and amplifying the smear campaign.

Campaign against protesting army veterans

Another information campaign aimed at influencing public opinion appears to have taken place in response to the arrest of 10 People's Liberation Army (PLA) veterans over protests in the eastern province of Shandong.

The protests took place in October 2018, when around 300 people demonstrated in Pingdu city to demand unpaid retirement benefits for veterans of the PLA.[24] The protests allegedly turned violent, leading to injuries and damage to police vehicles. On 9 December 2018, Chinese state media announced that 10 veterans had been arrested for their role in the protest.[25] The *China Digital Times*, which publishes leaked censorship instructions, reported that state media had been instructed to adopt a 'unified line' on the arrests.[26]

On the same day, a small but structured information operation appears to have kicked into gear. Beginning at 8:43 am Beijing time, accounts in the dataset began tweeting about the arrests. This continued, and tweets (a total of 683) were spaced out every few minutes until 3:52 pm Beijing time. At 9:52 pm Beijing time, the tweets started up again, this time continuing until 11:49 pm (Figure 25).

Figure 25: Campaign activity over the day by hour of the day adjusted for Beijing UTC+8 time
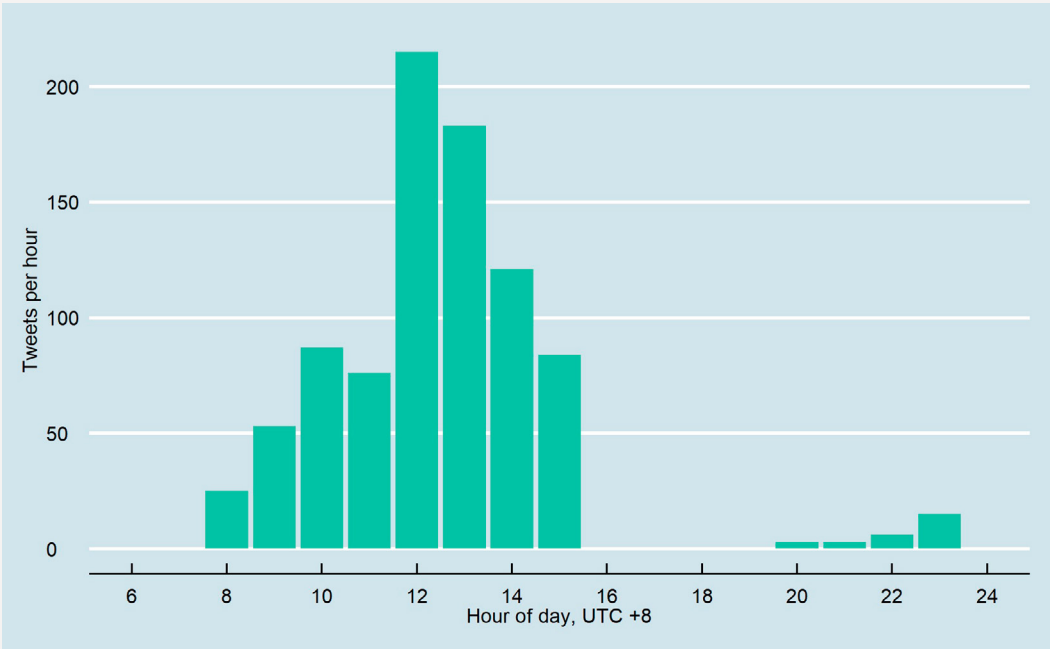
Activity by the accounts in the dataset included tweets as well as retweeting and responding to one another's tweets, creating the appearance of authentic conversation. There was significant repetition within and across accounts, however, and many accounts tweeted a phrase and then tweeted the exact same phrase repeatedly in replies to the tweets of other accounts.

The content of the tweets supported and reinforced the message being promoted by state media, in condemning the protesters as violent criminals and calling for them to be punished (figures 26 and 27).

Figure 26: 'Like this post'

tweetid	1071589476495835136
Time stamp	2018-12-09 02:16:00 UTC
Userid	53022020
User display name	sergentxgner
User screen name	sergentxgner

'中国是社会主义法治国家，绝对没有法外之地和法外之人，法律面前人人平等。自觉遵守国家法律、依法合理表达诉求、维护社会正常秩序，是每一位公民的义务和责任。对任何违法犯罪行为，公安机关都将坚决依法予以打击，为中国公安点赞，严厉惩治无视法律法规之人，全力保障人民群众生命、财产安全.'—9 December 2018

Translated: 'China is a socialist country ruled by law. There's no place and no people in it that are above the law. All people are equal before the law. It is the duty and responsibility of every citizen to consciously abide by the laws of the state, to express their demands reasonably and according to the law, and to maintain the normal social order. Public security organs will resolutely crack down on any illegal or criminal acts in accordance with the law. Like [this post] for China's public security, severely punish those who ignore laws and regulations, and fully protect the lives and property of the people.'

Figure 27: 'Strike out like a thunderclap'
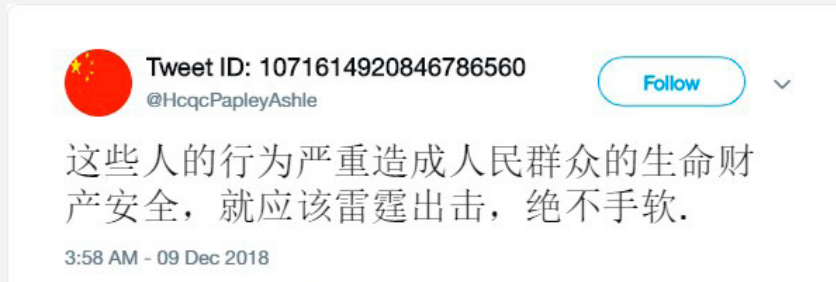
tweetid	1071614920846786560
Time stamp	2018-12-09 03:58:00 UTC
Userid	4249759479
User display name	林深见鹿
User screen name	HcqcPapleyAshle

'这些人的行为严重造成人民群众的生命财产安全，就应该雷霆出击，绝不手软.'—9 December 2018

Translated: 'The behaviour of these people has seriously caused [harm to] the safety of the lives and property of the people. They should strike out like a thunderclap and not relent.'

Note that this tweet may have been typed incorrectly and missed out a character or two. It should probably say that 'the behaviour endangered the lives and property of these people.'

Again, it appears likely that the motivation behind this campaign was to influence the opinions of overseas Chinese against critical international reporting (although international coverage of the arrests appears to have been minimal, which perhaps helps to explain the short-lived nature of the campaign) and videos of the event being circulated on WeChat that contradicted the official narrative.

Dormant accounts and Chinese-language tweets

The information operation against Guo Wengui appeared to begin on 24 April 2017. Our research also tried to determine whether earlier PRC-related information operations had taken place.

Chinese-language tweets

One measure we examined was the percentage of Chinese-language tweets per day in the dataset. Twitter assigns a 'tweet_language' value to tweets, and manual examination of a sample of tweets showed that this was approximately 90% accurate.

Figure 28 shows that before April 2017 there was no significant volume of Chinese-language tweets in the network of accounts that Twitter identified. A noticeable increase is seen by July 2017, and a significant volume of the tweets are identified as Chinese from then on, with a peak at over 80% in October 2017.

Figure 28: Percentage of Chinese-language tweets per day from January 2017 onwards
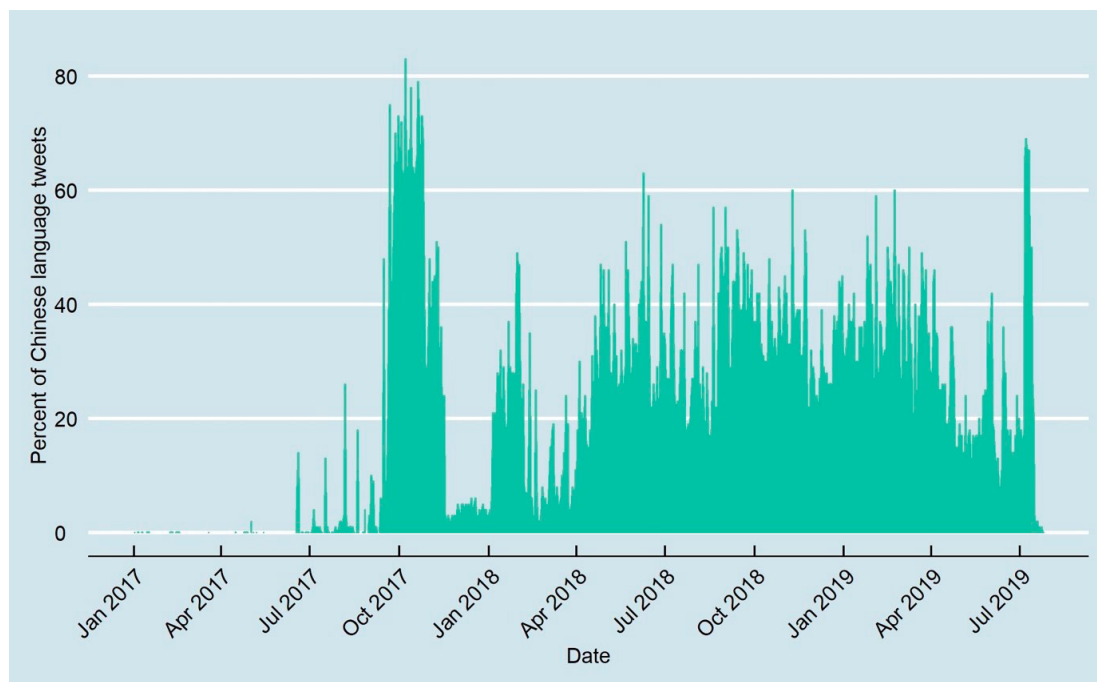
This measure does not indicate the existence of significant PRC-related operations before April 2017, unless those initial operations occurred in languages other than Chinese.

Account creation and tweet language

A second measure examined when accounts were created and the language they tweeted in.

Figure 29 shows when accounts were created. The time of creation is shown on the X-axis, percentage of Chinese tweets over the lifetime of the account is shown on the Y-axis, and the size of the points reflects follower numbers.

Figure 29: Account creation day, by percentage of Chinese tweets and follower numbers, 2008 to July 2019
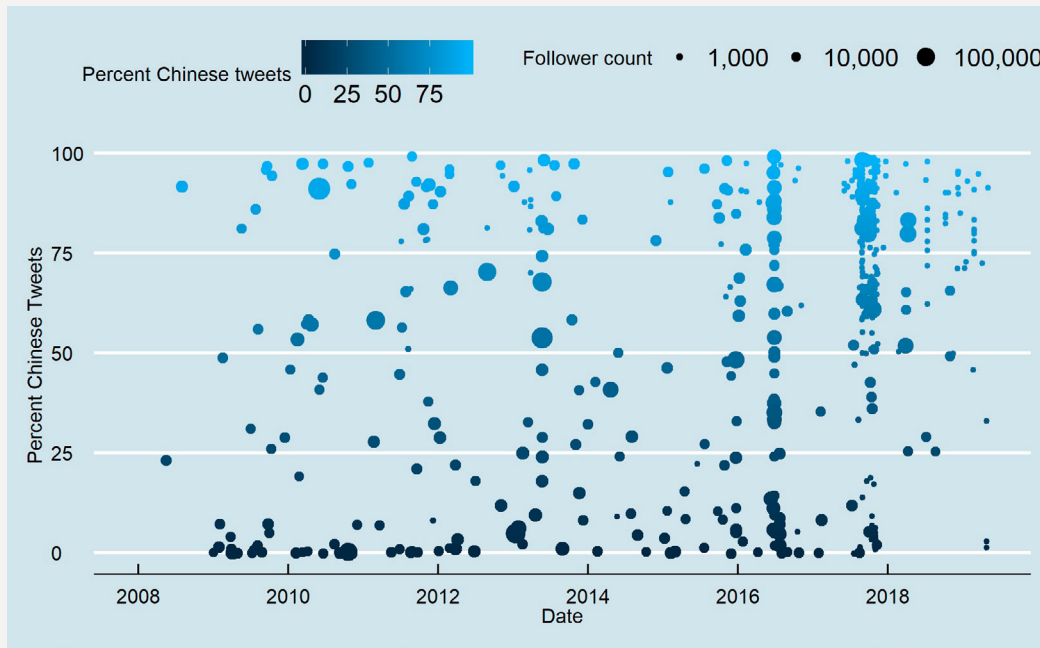
Figure 30 shows the same data series from April 2016 to July 2019.

Figure 30: Account creation day, by percentage Chinese tweets and follower numbers, April 2016 to July 2019
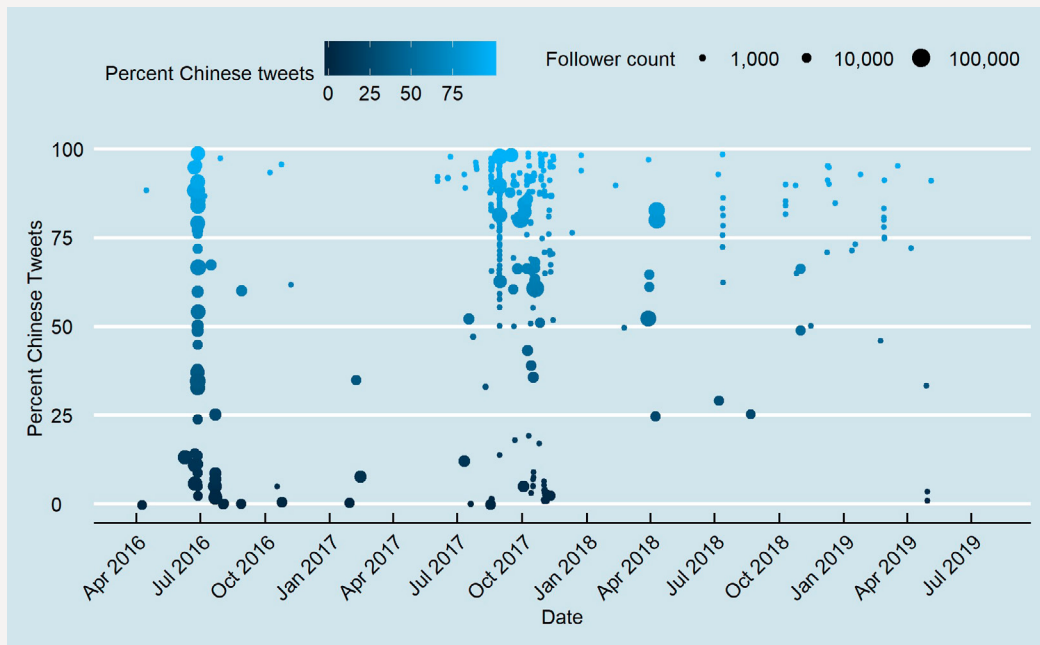
In figures 29 and 30, we can see a vertical stripe in July 2016, and more in August through to October 2017. The stripes indicate many accounts being created at close to the same time. From July 2017, new accounts have tweeted mostly in Chinese.

This data indicates that accounts were systematically created to be involved in this network. Accounts created after October 2017 tweet mostly in Chinese, with just a couple of exceptions. There is also a group of accounts that were created close to simultaneously in July 2016 and were involved in the network.

Sleeper accounts

The dataset contains 233 accounts that had greater than year-long breaks between tweets. These sleeper accounts were created as early as December 2007 and had breaks as long as 10 years between tweets.

Figure 31 shows the pattern of tweets for these accounts over time. The accounts tweeted in a variety of languages, including Portuguese, Spanish and English, but not Chinese, prior to their break in activity. After they resumed tweeting, there was a significant volume of Chinese-language tweets.

Figure 31: Tweets from sleeper accounts, 2009 to mid 2019
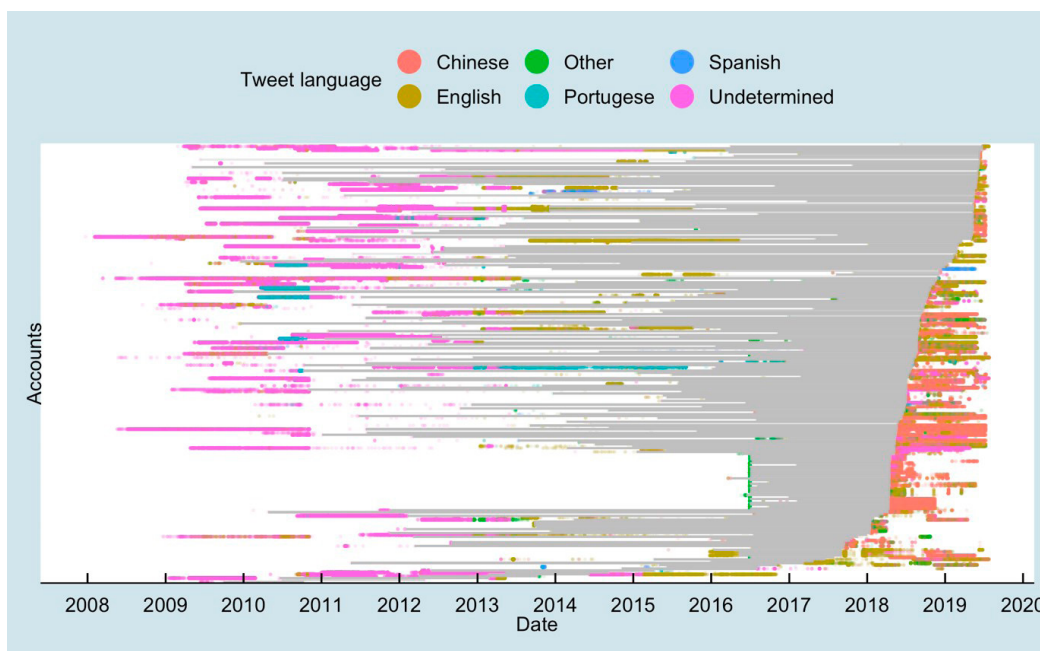
Note: Tweets from accounts with greater than one-year gaps are shown as dots coloured by tweet language. More than year-long gaps between tweets are represented by grey lines.

The bulk of the sleeper accounts began to tweet again from late 2017 onwards. This data supports the hypothesis that PRC-related groups began recruiting dormant accounts into their network from mid- to late-2017 and onwards.

Figure 32 shows the tweeting pattern of accounts created in June and August 2016. These accounts can be seen as a vertical stripe in Figure 30.

Figure 32: Tweets from sleeper accounts created between June and August 2016 and with a greater than one-year gap between tweets
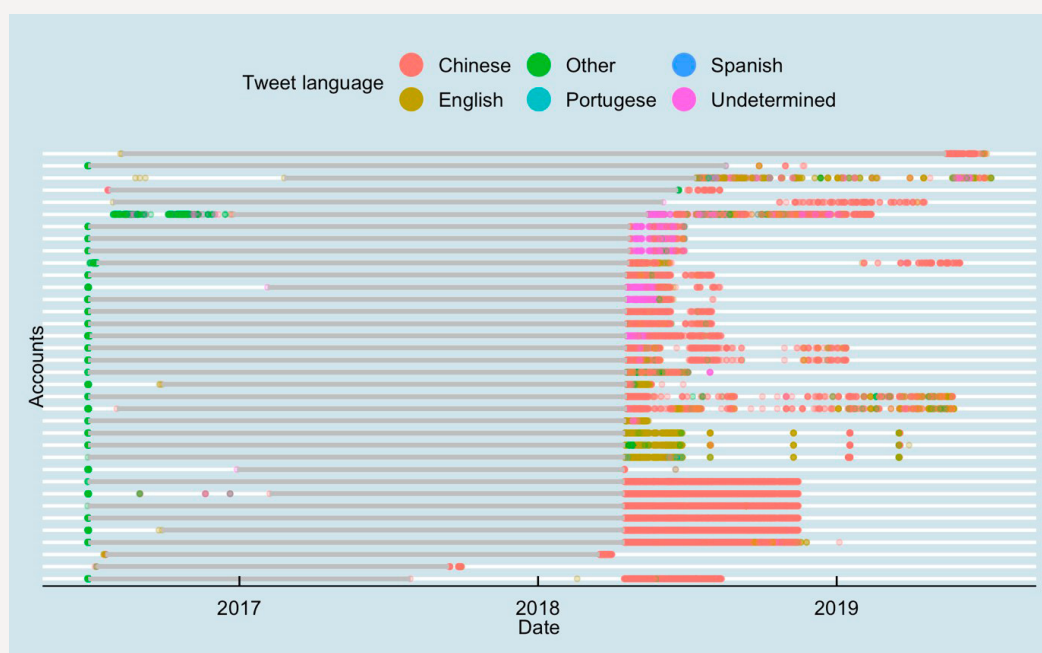
Note: Tweets from accounts that were created between June and August 2016 and with a greater than one-year gap between tweets are shown as dots coloured by tweet language.

The presence of long gaps in tweets immediately after account creation and before reactivation and tweeting mostly in Chinese from early 2018 does not support the hypothesis that PRC-related elements were engaged in active information operations before April 2017. It's possible that these accounts were created by PRC-related entities expressly for use in subsequent information operations, but our assessment is that it's more likely that these inactive accounts were created *en masse* for other purposes and then acquired by PRC-related groups.

This research did not identify any evidence for other PRC-related information operations earlier than April 2017.

Conclusion

ICPC's preliminary research indicates that the information operation targeting the Hong Kong protests, as reflected in this dataset, was relatively small, hastily constructed and relatively unsophisticated. This suggests that the operation, which Twitter has identified as linked to state-backed actors, is likely to have been a rapid response to the unexpected size and power of the Hong Kong protests, rather than a campaign planned well in advance. The unsophisticated nature of the campaign suggests a crude understanding of information operations and rudimentary tradecraft that is a long way from the skill level demonstrated by other state actors. This may be because the campaigns were outsourced to a contractor, or may reflect a lack of familiarity on the part of Chinese state-backed actors when it comes to information operations on open social media platforms such as Twitter, as opposed to the highly proficient levels of control demonstrated by the Chinese Government over heavily censored platforms such as WeChat or Weibo.

Our research has also uncovered evidence that these accounts had previously engaged in multiple information operations targeting political opponents of the Chinese Government. Activity in those campaigns showed clear signs of coordinated inauthentic behaviour (for example, patterns of posting that correspond to working days and hours in Beijing). Those information operations were likely to be aimed at overseas Chinese audiences.

This research is intended to add to the knowledge base available to researchers, governments and policymakers on the nature of Chinese state-linked information operations and coordinated inauthentic activity on Twitter.

Notes

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Acronyms and abbreviations

CCP   Chinese Communist Party

ICPC   International Cyber Policy Centre

IRA   Internet Research Agency (Russia)

PRC   People's Republic of China

Some previous ICPC publications

Taking Australian diplomacy digital

Dave Sharma

Policy Brief
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