Detecting Digital Fingerprints:
Tracing Chinese Disinformation in Taiwan

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A Joint Report from:
Institute for the Future's Digital Intelligence Lab
Graphika
The International Republican Institute

08 / 2020
Acknowledgments

The authors and organizations who produced this report are deeply grateful to our partners in Taiwan, who generously provided time and insights to help this project come to fruition. This report was only possible due to the incredible dedication of the civil society and academic community in Taiwan, which should inspire any democracy looking to protect itself from malign actors.

Members of this community include but are not limited to:

**All Interview Subjects**
g0v.tw Projects
0archive
Cofacts
DoubleThink Lab
Taiwan FactCheck Center
The Reporter
Taiwan Foundation for Democracy
Global Taiwan Institute
National Chengchi University Election Study Center
Prospect Foundation

For their assistance in several aspects of this report the authors also thank:

Gary Schmitt
Marina Gorbis
Nate Teblunthuis
Sylvie Liaw
Sam Woolley
Katie Joseff
Camille François
Daniel Twining
Johanna Kao
David Shullman
Adam King
Chris Olsen
Hsieh Yauling
Graphika is the network analysis firm that empowers Fortune 500 companies, Silicon Valley, human rights organizations, and universities to navigate the cybersocial terrain. With rigorous and academic methodology, Graphika maps the formation of communities and the flow of influence and information within large-scale social networks. Organizations rely on Graphika to analyze the global disinformation landscape, protect against coordinated and inauthentic online activity, and understand how to effectively reach audiences through social marketing channels. Founded in 2013 by John Kelly, Ph.D., a pioneer in the field of network analysis, Graphika is a trusted source for governing bodies around the globe and social platforms on matters of foreign information operations and disinformation and misinformation around the events with worldwide impact, such as COVID-19 and global election interference.

Institute for the Future’s (IFTF) Digital Intelligence Lab (DigIntel) is a social scientific research entity conducting work on the most pressing issues at the intersection of technology and society. They examine how new technologies and media can be used to both benefit and challenge democratic communication. IFTF is the world’s leading futures organization. For over 50 years, businesses, governments, and social impact organizations have depended upon IFTF global forecasts, custom research, and foresight training to navigate complex change and develop world-ready strategies. IFTF methodologies and toolsets yield coherent views of transformative possibilities across all sectors that together support a more sustainable future. IFTF is a registered 501(c)(3) nonprofit organization based in Palo Alto, California.

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Introduction
Taiwan is on the frontlines of the Chinese Communist Party's (CCP) international influence operations,¹ and what happens on the island often serves as a harbinger for how China will operate elsewhere. In 2018, the island’s local elections were subjected to myriad online disinformation campaigns² that favored a Beijing-friendly agenda, attempted to undermine democratic integrity, and systematically attacked democratically elected politicians whose positions did not align with China’s strategic interests. Despite the assertion of Chinese interference by several intelligence agencies and governments, however, clear evidence linking disinformation during the local elections to mainland Chinese actors has not been publicly shared.

This is not a unique scenario: governments around the world have discussed foreign interference campaigns without being able to share much public evidence to accompany these assessments. Many factors complicate the task of publicly sharing this type of evidence, among them privacy concerns linked to accounts that are often on private platforms, methodological concerns around standards of attribution in information operations (IO), and use of sensitive technical data in the process of analysis and attribution. Independent entities also face difficulties in their assessment of potential interference by China in the 2018 elections, notably because the Taiwanese online information space is unique and conducting a postmortem without consistent monitoring and real-time data collection is practically impossible.

Yet, when asked whether a foreign actor was likely to target Taiwan’s 2020 Presidential and Legislative election with disinformation, Wu Jun-deh, Director of the Cyber Warfare and Information Security Division at the Institute for National Defense and Security Research (INDSR), said “Of course, the answer is China.”

¹ Schmitt & Mazza, 2019; Shullman, 2019.
² In our interviews, Minister Lo Ping-cheng (羅秉成), the Minister without Portfolio who leads the government’s efforts to combat false information, emphasized that disinformation had a strong presence in the 2018 local elections: “What we found in last year’s nine-in-one 2018 election is that there was disinformation targeting political parties, political figures or the works of the current government. For example, especially because last year’s election was tied to the referendums, one issue that was attacked was the gay marriage issue - this policy was distorted to such an extent that (it claimed) there will be no more moms and dads after such a referendum was passed. There were not only [disinformation] attacks on certain figures, there are also attacks on issues.”
In June 2019, with the 2018 local elections as a point of reference, Graphika, Institute for the Future’s (IFTF) Digital Intelligence Lab, and the International Republican Institute (IRI) embarked on a research project to comprehensively study the online information environment in the lead up to, during, and in the aftermath of Taiwan’s January 2020 elections, with an awareness of the 2018 precedents and an eye for potential similar incidents throughout this election cycle. Graphika and DigIntel monitored and collected data from Facebook and Twitter and investigated leads on several other social media platforms, including Instagram, LINE, PTT, and YouTube. IRI supported several Taiwanese organizations who archived and analyzed data from content farms and the island’s most popular social media platforms. The research team visited Taiwan regularly, including during the election, to speak with civil society leaders, academics, journalists, technology companies, government officials, legislators, the Central Election Commission, and others.

Twitter data included three datasets: (1) tweets from Twitter’s Chinese information operations archive relating to Taiwan; (2) a month-long stream of tweets relating to the January election; and (3) a Graphika map of the election discussion on Twitter. Our Facebook dataset included a Graphika map of the 2020 election, consisting of public pages relevant to the election in Taiwan, as well as additional analysis of 139,538 Facebook posts gathered using CrowdTangle. We also investigated content on several other platforms, including YouTube, Instagram, LINE, and PTT. More details on these datasets, including streaming queries, Taiwan keywords, and number of posts and users in each set, can be found in our Datasets and Methodology appendix.
political parties. The goal was to understand the online disinformation tactics, vectors, and narratives used during a political event of critical importance to Beijing’s strategic interests. By investing in the organizations investigating and combating Chinese-language disinformation and CCP influence operations, we also hoped to increase the capacity of the global disinformation research community to track and expose this emerging threat to information and democratic integrity.

Two months into our research, Twitter and Facebook released statements that, for the first time, directly linked the Chinese state to an online information operation taking place on their platforms. Twitter stated that they were "disclosing a significant state-backed information operation focused on the situation in Hong Kong, specifically the protest movement and their calls for political change." Twitter found 936 accounts on its platform linked to mainland Chinese state actors. Facebook stated, "although the people behind this activity attempted to conceal their identities, our investigation found links to individuals associated with the Chinese government." Facebook disclosed five accounts, seven pages, and three groups. Graphika conducted an independent investigation of the 3.5 million tweets produced by this set of accounts, finding a prolific yet unsophisticated cross-platform amplification network that promoted smear campaigns against the Hong Kong protest movement and opposition figures like Guo Wengui.

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4 Twitter Safety, 2019a.
5 Gleicher, 2019.
6 Nimmo et al., 2019.
Events in Hong Kong went on to shape Taiwan’s information environment in myriad ways. In the early phase, a number of narratives emerged alleging that, for instance, the Taiwanese government was secretly providing large-scale financial backing to Hong Kong protestors at the expense of the Taiwanese taxpayer. As the protests and the Hong Kong government’s crackdown continued, Taiwanese public opinion about the island’s own relations with China radically shifted, making it untenable for China-friendly politicians to maintain a stance on cross-Strait relations that would be acceptable to Beijing.

The predominant narrative in June 2019 was that Taiwan’s presidential and legislative elections would be so tightly fought that a disinformation campaign could decide the result, but a shift in opinion meant that by fall 2019 the result of the presidential election in favor of the incumbent, Tsai Ing-Wen, seemed a foregone conclusion, and only the legislative seats were seriously contested. The Taiwanese information space during the 2020 presidential and legislative elections—a popular incumbent, no credible opposition, and a plummeting view of China—was thus radically different from the 2018 local elections, making it implausible that the same narratives would play out.

On January 10, the day before the vote, COVID-19 started to shape the Taiwanese information environment. A rumor circulated online that a new type of SARS had reached Taiwan and that it would be unsafe for citizens to vote in person. In the weeks and months after the election, disinformation associated with COVID-19 was regularly seeded in Taiwan, much of which was directed at undermining the government’s response to the virus and sowing distrust. Although the initial prompt for this study was election interference, COVID-19 and other incidents described in this report make clear that disinformation in Taiwan is a persistent threat not limited to election cycles.
Given that malign foreign actors typically exploit existing weaknesses and vectors for influence in a country’s information environment, we have analyzed disinformation related to Taiwanese democratic integrity regardless of whether it can be directly linked to foreign actors. We found a number of indicators suggesting coordinated disinformation campaigns targeting Taiwan, some of which were foreign in origin, particularly in the post-election period. The most clear-cut of these was a sustained, post-election COVID-19 disinformation campaign that showed signs of coming from the Chinese mainland and used Malaysian content farms to disseminate and amplify false information about the virus.

The events of the past year have created an information environment in Taiwan unlike anything that could have been predicted when the study commenced. As a result, we observed tactics, narratives, and strategic goals evolve in real time. We have provided a large volume of material in this report, but it constitutes only one piece of a broader, collaborative effort to understand Chinese-language disinformation.
Background
Taiwan’s current governing structure was formed as a result of “The Great Retreat” that ended the Chinese civil war: as the CCP took over mainland China, the Kuomintang (KMT) retreated to Taiwan and made Taipei the capital of the Republic of China (ROC). Under the ROC constitution, the island and the mainland were part of “one China,” echoing the People’s Republic’s claim to both as well. Throughout the Cold War, both the PRC and the ROC were governed as one-party states that each saw themselves as the legitimate ruler of greater China.

Gradually, from the mid-1980s, the ROC political system began to open up. By the 1990s, the Democratic Progressive Party (DPP) of Taiwan was contesting legislative elections and, in 2000, captured the office of presidency. The DPP’s position is that Taiwan is an independent, sovereign state separate from the mainland. In contrast, although the KMT agrees that the ROC is an independent, sovereign state, it also accepts the idea of “one China” but believes that the resolution of that idea is open to different interpretations. In general, the KMT is open to closer, working ties with the mainland, but the DPP is more skeptical of such ties, arguing that they reduce the island’s independence. Instead, the DPP has tended to prioritize deepening ties with the U.S. and democratic neighbors, but the KMT sees economic ties to the mainland as key to the island’s long-term prosperity.

Although the two parties dispute multiple domestic and international policies, the overriding matter of contention—the one that often defines national and increasingly local campaigns—is the difference in views about relations with the mainland. With popular opinion in Taiwan in favor of neither a formal declaration of independence nor unification, the island’s politics provides an open door for CCP interference.
Taiwan is critical to the geostrategic situation in the Asia-Pacific more broadly, particularly as it relates to strategic competition between the U.S. and China. Since 1979, under the Taiwan Relations Act, the U.S. has committed itself to a peaceful resolution of Taiwan’s future, to provide Taiwan with the arms needed to defend itself, and to maintain a U.S. capacity to resist any resort to force that would put at risk the security of Taiwan. The U.S. has maintained these commitments in the face of increasing signs of aggression from Beijing, and Beijing has asserted that the U.S. threatens China’s “core interests” by involving itself in what it claims is a “domestic” affair. Beijing, furthermore, has enacted a law stating that it retains the right to resolve the Taiwan issue by force if it deems it necessary to do so.

Finally, Taiwan’s vibrant democracy threatens the CCP’s narrative that democratic politics are incompatible with China’s Confucian culture and demonstrates to others in Asia that the democratic model is one that can produce stability and prosperity. As such, Taiwan—along with other CCP “core interests”—has often been a testing ground for the party’s most innovative influence tactics.

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8 Bethany Allen-Ebrahimian, a journalist whose work explores Chinese influence operations around the world, also noted this in interview with our team: “The existence of Taiwan as a real and functioning democracy that was established and developed by Huaren (華人), people of the Chinese ethnicity, disproves one of the Party’s most foundational statements—that democracy is not appropriate for the Chinese people, that Chinese culture isn’t compatible with democracy. Its very existence is an ideological threat to the Party.”
CCP Influence Operations in Taiwan: An Overview

The CCP’s digital disinformation efforts are the latest addition to an expansive influence operations toolkit designed to advance strategic or tactical objectives overseas and to prop up China-friendly politicians and influencers. The target audience of Chinese propaganda and disinformation is not always transnational and is instead sometimes an effort to control public perception of the CCP domestically within mainland China.9 Disinformation and information operations fit into what the CCP’s People’s Liberation Army (PLA) refers to as “cognitive domain operations” (認知域作戰). One of the most significant units to assume responsibility for these operations is Base 311, the PLA unit formally known as the Public Opinion, Psychological Operations and Legal Warfare Base (輿論戰心理戰法律戰基地). Base 311 has been active in Taiwan since the 1950s, when it began broadcasting “Voice of the Straits” (VTS) on Taiwanese radio.10 Today, Base 311 oversees online influence operations in Taiwan.11 As is the case elsewhere in the world, Beijing works to manipulate the total information environment in Taiwan, and complements its information and propaganda efforts with economic, military, and political influence.

The interplay of economic levers and information control is particularly evident in the CCP’s approach to Taiwan’s traditional media. In at least two cases, individuals with significant business interests in China have extensive influence over Taiwanese media. The Want Want Group, a conglomerate owned by Tsai Eng-Ming (蔡衍明), has received over $495 million USD in Chinese subsidies since 2007.12 In 2008, Want Want—which until that point had been a food business—diversified its holdings to include the China Times, one of Taiwan’s four main newspapers, and two major television channels, CTV and CTiTV. In 2019, it was revealed that editorial managers at the China Times and CTiTV were taking instructions from the Chinese government’s Taiwan Affairs Office13 (TAO) on stories relating to cross-Strait relations.14

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9 Experts noted this during research interviews. “We tend to believe that all of this, […] sharp power activities against Taiwan, are aimed at the Taiwanese. I have the growing impression that a lot of that is aimed primarily at a domestic audience in China, simply for the CCP to demonstrate that it is making inroads and gains when it comes to Taiwan,” noted J. Michael Cole. “So when you look at the effectiveness, you don’t only want to look at how it’s changing perceptions in Taiwan, but also how it fuels into that narrative back in China.”
11 Raska, 2015.
12 Raska, 2015.
13 The Taiwan Affairs Office (TAO) is the main body of the Chinese government in charge of cross-Strait relations, that is, China’s diplomatic relations with Taiwan.
14 Hille, 2019.
Cher Wang (王雪紅), the owner of TVBS, another popular TV channel on the island, also holds substantial business interests in mainland China. Furthermore, the Chinese government covertly paid at least five different Taiwanese media groups to run specific articles, including positive coverage of China-Taiwan entrepreneurial exchanges published in a leading Taiwan newspaper.

Beijing additionally influences Taiwanese media through annual cross-Strait media forums. The 4th annual Cross-Strait Media People Summit (兩岸媒體人峰會) in May 2019 drew about 70 attendees from various Taiwanese media companies. Participants were told they had a responsibility to promote Beijing's One "Country, Two Systems" approach to Taiwan and Hong Kong, and "peaceful reunification."

Taiwanese political parties and politicians have also come under CCP influence. The most overt case is the New Party (NP), a political party that espouses pro-unification views and has seen several of its members indicted for espionage and collusion with China. In June 2018, Taiwanese prosecutors accused party spokesman Wang Ping-chung (王炳忠), Wang's father, and two other NP members of endangering "national security and social stability by developing an organization for use by the Chinese government and its military." Wang worked with Chinese officials in 2013, received money transfers from China, and operated "under the guidance and assistance of the CCP to help the forces working to achieve unification across the Taiwan Strait." Despite the indictment, the NP has since increased ties to Beijing, opening a party liaison office in the mainland. In another case, Chang An-lo (張安樂)—who leads the Chinese Unification Promotion Party (CUPP, 中國統一促進黨)—has come under investigation for receiving political donations from China. Chang, who lived in exile in China for 10 years and spent over 10 years in a U.S. prison for his involvement in organized crime, has admitted his party receives funding but denies it is from the CCP.

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16 Reuters, who broke this story, has elected to keep the identities of these media groups confidential at the request of the former and current employees who served as sources for the revelations.
19 Pan, 2018; Strong, 2018.
20 Cole, 2020, pp. 52-53.
21 Agence-France Presse, 2018; Pomfret, 2018.
The CCP and Chinese military are also adapting these techniques to the digital realm. A 2018 paper from the PLA’s leading psychological warfare unit argued that the PLA should augment its research in digital information operations, recommending that the PLA invest in improving big data and natural language processing (NLP) techniques to better conduct subliminal messaging and distribute “networked propaganda.”

2018: A Watershed for Online Political Disinformation

For Taiwan, the November 2018 “nine-in-one” local elections and referenda were a watershed: they showed online disinformation’s potential to impact the country’s politics. Both the Taiwanese government and social media platforms were largely caught off guard by the amount of disinformation, the breadth of actors and issues it targeted, and the impact it had on political discourse. According to Lo Ping-Cheng, one of the ministers who oversees Taiwan’s efforts to combat false information, targets included political parties, political figures, and the government’s policies. The narratives were broad, ranging from the innocuous to the absurd—one went so far as to suggest that the referendum on gay marriage would eliminate mothers and fathers.

A 2019 study of LINE data confirmed the impression that political disinformation surged during the 2018 local elections. Austin Wang, an assistant professor of political science at the University of Nevada, Las Vegas (UNLV), conducted an independent study of LINE data gathered by Cofacts, a civil society fact-checking organization, before and after the election. The study explored 5,000 stories flagged by LINE users as potentially false that had been forwarded to Cofacts to be fact-checked. Users not only forwarded more stories to Cofacts for fact-checking as election day approached, the ratio of flagged stories containing false information also rose. These figures decreased sharply immediately after the election.

23 H. Liu et al., 2018.
24 The 2018 local elections were referred to as “nine-in-one” elections (九合一) as nine types of local officials (mayors, city councilors, county magistrates, etc.) were on the ballot (Yang, 2018).
25 According to Lo Ping-cheng (羅秉成), the Minister without Portfolio who leads the government’s efforts to combat false information “What we found in last year’s nine-in-one 2018 election is that there was disinformation targeting political parties, political figures or the works of the current government. For example, especially because last year’s election was tied to the referendums, one issue that was attacked was the gay marriage issue—this policy was distorted to such an extent that [it claimed] there will be no more moms and dads after such a referendum was passed. There were not only [disinformation] attacks on certain figures, there are also attacks on issues.”
26 Wang analyzed five months of data total. The data spanned from four months before the election to one month after.
Irregularities were also observed in online support for Han Kuo-yu (韓國瑜), a KMT candidate who was elected mayor of Kaohsiung City in the 2018 election and who would go on to become the party's candidate for president in the 2020 election. We found irregularities on Han's official Facebook page, which gained 225,882 likes and 235,038 follows between October 17 and November 14, 2018, more than three times those of Han's DPP opponent, Chen Chi-mai (陳其邁), who saw the second highest gain in likes and follows in 2018. On average, Taiwanese politicians' Facebook pages we observed during that period gained 12,000 likes and follows. Paul Huang, a Taiwanese journalist, also noted suspicious activity in a Facebook group supporting Han. Three accounts that were administrators of the group had suspicious LinkedIn profiles that used formulaic bios in simplified Chinese and claimed to work for Tencent, a Chinese technology company.

Another key moment for understanding online disinformation in Taiwan was the September 2018 Kamsai Airport scandal. After a typhoon closed Kamsai International Airport in Japan, thousands of travelers were left stranded, including many Taiwanese. A story in China's Global Times claimed that the Chinese government was not only repatriating its own citizens, but also providing support to Taiwanese citizens. The initial story was seeded by a user with a Chinese IP address on PTT, a Reddit-like BBS platform popular in Taiwan. Later, the Japanese government indicated both elements of the story were false, but not before the rumor circulated across Taiwan and created an uproar. The director of Taiwan's representative office in Osaka, Su Chii-cherng (蘇啓誠), committed suicide a week after the story went viral, reportedly as a result of pressure from the scandal. The Kamsai disinformation story continues to develop: in December 2019, the Taipei district prosecutor's office charged an individual associated with KaShen (卡神), a Taiwanese digital marketing company, with spurring the suicide through a PTT post that criticized Su and his team.

28 These figures were obtained from archived copies of forty-three 2018 election candidates' official Facebook pages in the Wayback Machine from October through November 2018.
29 Huang also noted that an additional 249 LinkedIn accounts also shared identical characteristics with these three. These included using the same formulaic phrase in their profile descriptions (“worked in public relations for many foreign companies” 在多家外企做过公关), stock profile photos, claiming to be employed at Tencent, and claiming to have graduated from Peking University.
30 Huang, 2019.
32 Everington, 2018; Stanford Internet Observatory, 2019a.
33 Everington, 2018; S. Lin & Pan, 2019.
Johnson Liang, co-founder of the Taiwanese fact-checking outfit Cofacts, sees the Kamsai incident as a defining moment for Taiwan’s understanding of disinformation: “I think that event changed quite a lot of people’s minds and made them say that ‘hey, this is really an issue.’” The incident was also a wake-up call for the social media industry. PTT, for instance, stopped allowing registration of new accounts after the incident, citing the harm that “manipulation of public opinion” can have on public discourse.34

In 2018, investigative journalists in Taiwan also found that a Chinese company, Wuwei Technologies (無為科技), was behind the Happytify network (歡享網), a group of content farms spreading political disinformation on the island. The Happytify network flooded Facebook pages and groups supporting the KMT with sensational and false anti-DPP articles in 2018 and 2019. Reporters ultimately could not determine whether deeper political goals or government ties lay behind the network, although politically themed content showed a clear pattern in opposing the DPP. Financial motivations led at least two Taiwanese citizens to distribute articles from the Happytify network.35

Local Disinformation Infrastructure

Malign foreign actors often leverage local infrastructure to produce or amplify disinformation. The utility of exploiting an existing system lies in its credibility within local communities and established audiences, who can be immediately targeted with content. In the most obvious cases, malign actors commandeers social media marketing infrastructure and tools—for example, they use fake accounts to deliver content, as noted with the Chinese pro-government spam network known as Spamouflage Dragon, identified during the Hong Kong protests in summer 2019.36 On the more covert side, this behavior involves co-opting opposition and anti-government communities, either with weaponized leaks (such as the dissemination of UK-US trade documents in October 201937) or the use of fake personas. This covert strategy is common among Kremlin-backed operations: prominent examples include Russian military intelligence agency (GRU) personas Alice Donovan and Sophie Mangal writing articles on geopolitical affairs for online outlets like Counterpunch, Global Research, and Veterans Today.38

34 Kung, 2018a.  
35 Gong, 2018a, 2018b.  
36 Graphika has investigated various forms of this network on an ongoing basis since summer 2019; finding an active and prolific, but ultimately low-impact, cross-platform political spam network operating in Mandarin. These operations tend to use hijacked or fake accounts to support the Chinese government viewpoint on a range of international issues. Platforms leveraged by this network include YouTube, Twitter, and Facebook (Nimmo et al., 2019, 2020).  
37 Nimmo, 2019.  
Word-of-Mouth Marketing and Cyberarmies

Much of Taiwan's political disinformation is borne out of the island's digital marketing economy, known as "word-of-mouth marketing" (口碑行銷). This economy is largely designed to promote small businesses, but it also plays a role in political astroturfing campaigns. Cyberarmies (網軍), paid users who post and amplify promotional content and attack opponents for a political party or candidate, first appeared in Taiwan in 2014. Aaron Wytze, a Chinese disinformation researcher, noted how pervasive they have become: "After 2014 there was a recognition that internet armies that you could hire were a very successful strategy politically and were very cheap also to hire. You could [...] hire an internet army for 10,000 NTD [$330 USD] a month." The operator of the Taiwanese content farm network GhostIsland (鬼島新聞) alleged that all political parties deployed cyberarmies in the 2020 election. The pervasive nature of cyberarmy tactics on PTT inspired academic research—most recently, a team prototyped detection techniques for identifying human users engaging in the practice.

As is the case around the world, the line between fair digital campaigning and disinformation can be blurred. In 2014, Ko Wen-je won Taipei's mayoral race, an upset victory credited in part to a digital campaign informed by Qsearch, a company that specializes in big data analytics and precision targeting on Facebook.\(^{44}\) Wang Shih-en, Chief Technology Officer at Qsearch, said "We talked to a number of local agencies in our reporting, and they are all homegrown Taiwanese offering this information operation service for all kinds of disinfo. If people are paying, they will do it."

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39 Summer Chen, a journalist at the Taiwan FactCheck Center, described a small part of this economy, that is, "post-helpers" (貼文小幫手), or financially motivated actors who will post any content online for a fee. Post-helpers are often hired to promote local small businesses, but astroturfing tactics are also present in big business on the island. In 2013, Taiwan's Fair Trade Commission fined Samsung 10 million New Taiwan Dollars (around $340,000 USD) after an incident known "Writergate" (寫手門), in which the company used paid writers and fake accounts to promote its phones and attack its competitors in Taiwan (Agencies, 2013; Kung, 2018b).

40 Astroturfing refers to the use of manipulative tools and tactics online (such as fake accounts, bots, and false amplification) to create the illusion of public, grassroots support for a message, candidate, or product. Because this technique attempts to create fake grassroots support, it is referred to as astroturfing.

41 On the topic of the local Taiwanese disinformation industry, Jason C.H. Liu, a journalist from The Reporter who specializes in disinformation in Taiwan, said "We talked to a number of local agencies in our reporting, and they are all homegrown Taiwanese offering this information operation service for all kinds of disinfo. If people are paying, they will do it."


43 M.-H. Wang et al., 2020.

44 Monaco, 2017.
Officer and co-founder of Qsearch, described the success of the company’s work on Ko’s 2014 campaign: “The result was great. How great? Average clickthrough rate for Facebook ads is 2%, Ko Wen-je’s was 20%. That means 1 in 5 people will push like, will spend time to go watch an ad. This kind of precision isn’t ‘precision’ marketing, it’s brainwashing.”\(^45\)

Another of the firm’s co-founders, Roger Do, now sells digital consulting services abroad under the aegis of a new company, AutoPolitic. Do claims his clients have won 39 of the 50 elections he has worked on in Asia. He uses the metaphor of a virus to describe his services: “we feel we are testing where the democratic system’s weak points are, we’re a virus” meant to generate “antibodies” and build a more robust system.\(^46\)

Astroturfing infrastructure has consistently played a role in political disinformation on the island. *The Reporter* found that the KMT used manipulation tactics to manufacture support for a national school curriculum overhaul in 2015. An employee of a digital marketing firm who worked on the case described the tens of thousands of fake social media accounts his company had on-hand: “We can almost paralyze online forums at any time, it’s like holding a secret army in your hand.”\(^47\) Other companies, such as KaShen (卡神), are known to participate in political astroturfing campaigns.\(^48\) Local reports have found that PTT users cultivate and sell accounts for political buyers through online auction sites, and accounts with more administrative privileges or longer histories sell for higher prices.\(^49\)

Cyberarmies, digital marketers, and content farms typically rely on paid writers to create content, but Peng Kuan Chin’s “content farm automatic collection system” reportedly automatically generates stories and uses bots to promote them. Chin, a digital marketer who is conspicuous about his trade, claims to own thousands of fake accounts and to have customers spanning China, Malaysia, Singapore, and Taiwan. Chin also claims he was hired to promote Malaysian Prime Minister Najib Razak’s image among youth during his 2018 reelection campaign.\(^50\) Chin said his techniques were inspired by China:

“The advantage of using automated software is that you can create volume, this marketing logic is a way of handling China’s 1.4 billion people—people won’t see something until it reaches a high volume. Now, Taiwan only has 23 million people. Once I use China’s logic, creating the

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\(^{45}\) J. H. C. Liu, 2019.  
\(^{46}\) J. C. H. Liu, 2019.  
\(^{47}\) Kung, 2018a.  
\(^{48}\) CNA, 2020; tanford Internet Observatory, 2019a.  
\(^{49}\) J. C. H. Liu, 2018.  
\(^{50}\) Silverman et al, 2020.
biggest amount [of traffic/content] I can in a short time, then everyone's eyes will be filled with the information I'm distributing. The United Front uses this exact model of content farm promotion. I just copied their manipulation. This is how Taiwanese people get brainwashed.”

Content Farms

The country also has a thriving economy of content farms, websites that publish massive amounts of news stories with little to no transparency about their authors, the production of their articles, or their business model. The websites often include hard-to-find disclaimers that absolve them of legal responsibility. One prominent network in recent years has been Mission.tw (密訊). Jason C. H. Liu and The Reporter tied the Mission content farm network back to Lin Zhengguo (林正國), an assistant to Wang Ping-chung, the indicted spokesperson for the pro-unification New Party. Content farm domains belonging to the Mission network all contain the following disclaimer:


This website makes real-time news. This site does not bear legal responsibility for the factuality, completeness or stances taken in any articles. All content only represents the poster’s views, and absolutely does not represent this website’s stance. Users should not take this content as fact and should exercise their own judgment when assessing the veracity of this content.

Content farms often reproduce articles from other outlets, changing the headlines and altering the content. Many stories that come from content farms are misleading or simply false. Content farm stories are also often distributed and promoted in a highly coordinated, inorganic manner. J. Michael Cole, a Taiwan-based political analyst and cross-Strait relations expert, described this coordinated distribution, "oftentimes almost simultaneously, something that appears on a content farm will start being shared on these Facebook pages. And then you track them and there's dozens and dozens of them, and the post is almost to the second, occurring at the same time.”

51 Kung & Liu, 2020
52 Gong, 2018a, 2018b; Kung et al., 2019.
Data Analysis of Disinformation in Taiwan’s Election & Post-Election Periods
Our quantitative analysis of the election and post-election period in Taiwan included systematic analyses of Twitter and Facebook. Our Twitter data included three datasets: (1) tweets from Twitter’s Chinese information operations archive relating to Taiwan53; (2) a month-long stream of tweets relating to the January election; and (3) a Graphika map of the election discussion on Twitter. Our Facebook dataset included a Graphika map of the 2020 election, consisting of public pages relevant to the election in Taiwan, as well as additional analysis of 139,538 Facebook posts gathered using CrowdTangle. Our analyses led us to investigate content on several other platforms, including YouTube, Instagram, LINE, and PTT. We investigated a total of six social media platforms in the course of this work.

53 This data can be found on Twitter’s Election Integrity Hub.
Part I: Disinformation Before and During Taiwan’s January 2020 Election
CCP Support Cluster Attacks the Anti-Infiltration Law

Although Twitter is not particularly popular in Taiwan, the platform does give some clues as to international conversation about Taiwan. In this regard, Twitter can be an informative source for understanding actors spreading disinformation about Taiwan or targeting Taiwan with particular narratives, many of which are present on other platforms. Graphika’s map of the Taiwanese election landscape on Twitter identified a clear cluster of pro-CCP accounts on the platform, which were labeled “China CCP support.”

Graphika’s software uses an initial set of seeds—in this case 84 keywords and hashtags related to Taiwanese politics and the January election—to build a set of Twitter users frequently using them. After collecting this initial set of accounts, the network is “reduced” to the most significantly connected network, visualized below. This process enables analysis of the most relevant accounts around a given topic on Twitter.

54 These keywords and hashtags were in English, traditional Chinese, and simplified Chinese.
Each dot in the network map above represents a node or individual Twitter account and is color-coded according to which online interest community the account belongs to, an assessment made by Graphika analysts. Close proximity of nodes indicates a high degree of interconnectedness, and a node's size represents that account's Twitter following.

The Graphika map generated for this research comprises 13,875 Twitter users. Graphika's attentive clustering algorithm identified 61 distinct clusters within the network. Graphika then categorized the clusters into eight groups, each represented on the map by a different color. The network map contains a large proportion of Japanese content, owing to a high degree of follower relationships with the accounts in Graphika's seed list. However, a small number of these political Japanese accounts act as a “bridge” between the Taiwanese accounts and the wider network.
There is significant overlap between the three groups on the network graph’s right side: accounts interested in Taiwan, Chinese pro-democracy accounts, and Hong Kong-based activity. This overlap indicates that these accounts have interconnected follower relationships and are therefore likely to be exposed to similar types of information. A notably distinct group is labeled “China CCP Support.” Accounts in this cluster were determined to be Chinese users, mainly through the use of simplified characters and mainland Chinese phrasings, reported locations in China in their Twitter bios, and promotion of CCP views on Hong Kong, Xinjiang, and other issues. This group is shown below highlighted in red.

This group of users produced 109,954 total tweets in the two months leading up to the election. Their top hashtags and phrases predominantly pushed the CCP line on Hong Kong and Xinjiang.

It is unclear whether these users are independent netizens or state-affiliated, but the main topics of their tweets are largely the same as Chinese government accounts in Twitter’s election integrity archive—a central preoccupation with Hong Kong, with a small number of tweets focused on Taiwan.

The second most highly cited URL in this set of users is a documentary from the Chinese state media company CGTV, “Fighting Terrorism in Xinjiang.” CGTN’s website is also one of the most highly shared domains among users in the CCP Support group, second only to the Hong Kong China News Agency.

55 By “phrase” here we mean trigrams, or triplets of words that occur in posts.
This video was released in early December, shortly after the U.S. House of Representatives passed the Uyghur Human Rights Policy Act, and it showed several signs of suspicious and coordinated promotion on Twitter. Proactively monitoring tweets in this timeframe, we collected 1,333 tweets citing the video’s URL from December 5 to December 9, 2019. Using Botometer, an open-source bot classification tool, the IFTF research team determined that 30% of the users citing the link during this time were likely to come from automated accounts. Six accounts in the China CCP support cluster tweeted this video.

A total of 5,439 tweets from users in the China CCP Support cluster used at least 1 of 471 keywords relating to Taiwan (see Datasets and Methodology Appendix for details). One of the most significant topics in this set is Taiwan’s recently passed anti-infiltration law. The Legislative Yuan passed the bill on December 31, 2019, despite the opposition KMT’s boycott of the vote. Many of the Taiwan-relevant tweets from the China CCP Support group during the election critically opposed the law, frequently accusing it of being anti-democratic.

Several users retweeted a Radio Free Asia video showing pro-China politicians protesting the law. In the video, Chang An-lo, head of the Chinese Unification Promotion Party, says, “I’m a fellow traveler of the CCP, I don’t need other people to infiltrate me—since I was born I’ve been Chinese.” Chiu Yi, a New Party (NP) politician, also can be heard in the video describing DPP government rule as “Green Terror,” an expression that evokes the “White Terror” of authoritarian oppression that Taiwan experienced in the 1980s under one-party rule.

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56 The Uyghur Human Rights Policy Act called on the Trump administration to impose sanctions on China for human rights violations in Xinjiang, namely the detainment and internment of Uyghurs, a Muslim minority that resides in the northwest province. One Chinese Ministry of Foreign Affairs spokesperson, Hua Chunying, criticized the bill, characterizing it as “wantonly smears[ing] China’s counter-terrorism and de-radicalization efforts” (Wescott & Byrd, 2019). In 2019, several high-profile, internal leaks from the Chinese government revealed the extent of the CCP’s oppression campaign in Xinjiang and increased calls from politicians and citizens alike to repudiate the CCP’s actions (Allen-Ebrahimian, 2019; Ramos & Buckley, 2019).

57 Kim, 2020.

58 For more details on Botometer and the bot classification process, see our Datasets and Methodology Appendix.

59 Previous analyses from Graphika maps suggest that 12-13% of automation around a given hashtag or topic is common. This measurement is based on Botometer values; see Datasets and Methodology Appendix for more details.

60 Aspinwall, 2020; Lee & Hamacher, 2019.
Another account from this set also uses the term “Green Terror,” claiming it is “scarier than China.”

Note: this user appears to have mixed up the KMT and the DPP in this tweet. “Green terror” is usually an accusation leveled at the DPP, whose party color is green.

Another tweet from @lovechinaleague criticizes the DPP’s “green terror” rule of Taiwan and links to a TVBS video claiming that Tsai’s governing methods are similar to the CCP. @lovechinaleague is a member of the China CCP Support group in Graphika’s Taiwan Elections map who is now suspended from Twitter.
Several of the linguistic conventions in this group's tweets are also mainland Chinese formulations.

- **台灣地區領導人, 台灣領導人**
  - "Leader of the Taiwan territory,"
  - "Taiwanese Leader," a wording that avoids using the term president

- **台灣省**
  - Taiwan Province, a phrase that implies Taiwan is a province of China

- **台灣當局**
  - The Taiwan authority

Other common phrases in this set are pejorative characterizations of Taiwan and its politics.

- **菜菜子**
  - Roughly "veggie," a play on Tsai Ing-wen's surname 蔡

- **民賤党**
  - "People's Thief Party," instead of the "People's Progressive Party" (民進黨), the name of the DPP

- **台蛙, 井底之蛙**
  - "Taiwan Frogs," "Frogs at the bottom of a well," a Chinese idiom used to characterize the Taiwanese as naive and insignificant and is frequently used in trolling campaigns attacking Taiwan

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**Isolated, High-Volume Twitter Users Attacking Taiwan and Tsai Ing-wen during the Election**

Using Twitter's Streaming API, we also collected Twitter accounts, hashtags, and keywords (in both English and Chinese) related to Taiwan's 2020 election from December 11, 2019 to January 15, 2020. Several isolated users collected in the set exhibited suspicious behavior during the election period. One Twitter account tweeted 3,655 times in the month preceding the election. Although this user produced a high volume of tweets, the content consisted of only 45 unique strings of text, all of which were instances of the user retweeting themself. These tweets promoted a small number of stories that cast Taiwan in a negative light. Only 20 distinct URLs occurred in this user's 3,600 tweets, the most frequently cited of which was of a mainland Chinese
video alleging that over 50,000 Taiwanese citizens have been indicted for international fraud. The video’s host repeatedly refers to the country as “the Taiwanese territory of the Motherland” (我國台灣地區, a wording that alleges Taiwan belongs to China. After the election was over, this user deleted nearly all of its tweets. As of mid-February, only 264 tweets remained on the profile.

Another high-volume user tweeted 606 times during the same month, promoting messages that alleged Tsai Ing-wen was using the Hong Kong protests as an “election bargaining chip.” Only a handful of unique strings appear in these 600 tweets. This user and his corresponding Facebook account were suspended during the research period.

A handful of Twitter bots promoted the site truthpedia.org during the election with the hashtag #揭秘真相 (#revealthetruth). This set of 19 users was clearly automated: 98% percent of the hashtag's citations in our dataset likely came from bots. Truthpedia.org’s articles appeared to be objective and not contain any disinformation relating to Taiwanese politics. However, this botnet linked to articles on Han Kuo-yu and the KMT three times as often as Tsai Ing-wen.

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62 See Datasets and Methodology Appendix for more details on our bot detection methodology.
Twitter Election Integrity Archive: Chinese Government Tweets About Taiwan

In August and September 2019, Twitter released two datasets related to CCP-linked information operations directed at Hong Kong. Of the 13.8 million tweets in the set, a subset of 9,267 contained at least 1 of 471 keywords we assembled relating to Taiwan, including keywords related to the 2020 presidential and legislative elections. This is a small fraction of the dataset, but it lends significant insights into mainland China’s information operations targeting Taiwan. Tweets in this set promoted Taiwanese domestic media outlets known to align with the CCP’s views on the island. These include promotion of pro-unification voices, such as journalist Huang Zhixian (黃智賢), or politicians from the New Party, such as Wang Ping-chung (王炳忠), who previously worked with Chinese operatives, according to 2013 and 2017 court investigations.

A subset of 38 tweets mentioned 2020 Legislative Yuan (LY) candidates. These tweets mainly addressed candidates’ political actions and comments outside the race. The most frequently mentioned legislative candidate by far was Hung Hsiu-chu (洪秀柱) of the KMT. A former KMT chairman, Hung was the party’s first nominee for president in 2015 but was replaced after polling low early in the race. Many thought Hung’s CCP-friendly views, including “one country, same interpretation” (一中同表) contributed to her replacement in that race. Nearly all tweets about Hung mentioned her May 2019 trip to Beijing to discuss the future of cross-Strait relations with the CCP.
Nearly all tweets mentioning 2020 election candidates showed clear themes of opposing the DPP and attempting to undermine the Taiwanese government. When governmental bodies and positions are used, they are placed in quotes.

【国民党要求陈水扁入监服刑】29日，中国国民党发言人洪孟楷、副发言人萧敬严前往台当局“监察院”举发台中监狱放任受刑人陈水扁违反“四不保外就医原则”，要求“监委”纠正弹劾失职人员，要求陈水扁应即日入监服刑。

@jacobsonzax, 1111812938707300352

«貨賣出去』韓國瑜歸國！星馬拚1.6億訂單戳破民進黨「國王的新衣」！關鍵時刻20190228-1
朱學恒 陳麗娜 謝龍介 林佳新 黃暐瀚 吳子嘉
https://t.co/ydIezDh5o6 来自 @YouTube

@pamgex0z, 1101264695258828800

这番话迅速在岛内引发热议。前“立委”林郁方称，蔡英文的说法是用区域、族群、政党来分化军队，“讲这种话的三军统帅是不及格的”。

@tmiiw2166, 1138634756239679489

67 These “Four Noes” are four pledges former DPP President Chen Shui-bian made upon his inauguration in 2000 that were to be upheld provided the People’s Republic of China (PRC) did not use military action against Taiwan.
68 Chen Shui-bian served the president of Taiwan from 2000 to 2008 and was the country’s first DPP president. Chen was convicted of bribery and sentenced to 19 years in prison in 2009. He was granted medical parole in early January 2015.
69 The remaining last half of this tweet refers to guests and hosts on the Taiwanese show “Critical Moment”. The transliteration of the last half of this tweet is “Guanjian shike Zhu Xueheng Chen Lina Xie Longjie Lin Jiaxin Huang Weihan Wuzijia.”
Another tweet in this set criticized a sister city agreement between Taiwan’s capital city Taipei and Rockville, Maryland. The message places quotation marks around Taiwan’s Ministry of Foreign Affairs (MOFA), criticizes Tsai Ing-wen’s title of president, and highlights KMT LY candidate Hung Mong-kai’s calls for the President’s office to issue an apology.

The mayor of Yilan, Taiwan will take a congratulatory letter to Rockville, Maryland in the U.S. to conclude a sister city agreement. The letter uses the title “Taiwan’s president” in Chinese and English in Tsai Ing-wen’s signature. On the 8th, Taiwan LY candidate Hung Mong-kai criticized Tsai on Facebook, and called for Tsai Ing-wen’s office and the “MOFA” to issue a sincere apology to the people.

The two main presidential candidates in the Taiwanese election, Tsai Ing-wen and Han Kuo-yu, were also mentioned in the archive: Tsai was mentioned 582 times and Han 304 times. Although Han did not announce his candidacy for the 2020 election until June 2019, the Twitter archive shows that Chinese government operatives clearly supported him as mayor of Kaohsiung. Several tweets from early 2019 promote Han Kuo-yu’s statements on cross-Strait relations and criticize Tsai’s cross-Strait policy.
A Chinese state-sponsored tweet links to a YouTube video praising KMT presidential candidate Han Kuo-yu’s "heroic character."

高雄市长韩国瑜近日以“你侬我侬”来比喻两岸关系。他说，这主要是强调心理层次，是谈感情和心理，两岸有各种形容词可形容，两岸一家亲、你侬我侬、换手抓痒、相亲相爱都可以。

This post emphasizes a new level of cooperation between Taiwan and China—the phrase "lovey-dovey" to describe cross-Strait relations today. He said he mainly wants to emphasize the psychological and emotional level of the relationship. [He said] there are lots of phrases you can use to describe cross-Strait relations, one family, "lovey-dovey," scratching each other's back, close friends—they all work.

韩國瑜之影星本色 [...]　來自@YouTube

Translation: The heroic character of Han Kuo-yu

Pamgexlou, 1100898812594335745

This post emphasizes a new level of cooperation between Taiwan and China—the phrase "lovey-dovey" to describe cross-Strait relations today. He said he mainly wants to emphasize the psychological and emotional level of the relationship. [He said] there are lots of phrases you can use to describe cross-Strait relations, one family, "lovey-dovey," scratching each other's back, close friends—they all work.

Kaohsiung Mayor Han Kuo-yu used the phrase "lovey-dovey" to describe cross-Strait relations today. He said he mainly wants to emphasize the psychological and emotional level of the relationship. [He said] there are lots of phrases you can use to describe cross-Strait relations, one family, "lovey-dovey," scratching each other's back, close friends—they all work.
Content Farm Activity During the Election

Mission.tw Network

In the lead-up to the 2018 election, the content farm known as “Mission” (密訊, mission.tw) became the most frequently cited domain on pan-Blue Facebook pages and groups in Taiwan. The domain was banned from Facebook in October 2019, at which point it began making copies of its site under new domain names, such as missiback.com, gufunnews.com, new.mission-tw.com, gaochuji.com, mission-new.com, mission-hosti.com, tiksomo.com, falotat.com, osometalk.com, and itaiwan.mission-tw.com.71

Pplomo.com, the most recent incarnation of the Mission.tw network at the time of this report’s publication, appeared on December 9, 2019, one month before the election. A CrowdTangle examination of 12 pan-Blue Taiwanese pages provided by The Reporter reveals that pplomo.com continued to be heavily cited throughout December and January, despite that a dozen previous incarnations of the site had been banned from the platform. Indeed, pplomo.com was cited 2,635 times during this time frame and was the most frequently cited domain on the 12 pan-Blue pages from December 2019 to March 2020.

Pplomo.com benefits from a large audience in Graphika’s Facebook network map of political communities in Taiwan. Although the map comprises over 8,000 Facebook pages from diverse online Taiwanese communities, the pplomo.com domain was shared primarily by a group that revolves around social media marketing. This group is distributed evenly across the map, encompassing over 47% of the total map volume. Qualitative analysis of the Facebook pages sharing content from pplomo.com indicates that it is most popular among right-wing Taiwanese political communities, particularly anti-DPP and anti-Tsai Ing-wen groups. At the time of publication, pplomo.com, unlike mission.tw and its previous incarnations, had not been removed from Facebook and continued to be cited heavily.

Graphika’s network map of Taiwanese political pages on Facebook (top) shows that the group sharing pplomo.com most prominently (bottom) benefited from a large audience.

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70 “Pan-Blue” (泛藍) designates pages that generally support the KMT, whose party color is blue. The DPP’s party color is green.
71 Kung et al., 2019.
Graphika’s network map of Taiwanese political pages on Facebook (top) shows that the group sharing pplomo.com most prominently (bottom) benefited from a large audience.
The Qiqi News Network

Another content farm network that displayed coordinated behavior in the 2020 election was the Malaysia-based Qiqi News Network, a set of websites and Facebook pages that targets Chinese-speaking populations around the world. The Qiqi network comprised 55 Facebook pages that jointly promoted dozens of domains. Although 7 pages in this network went offline during the observation period, 48 remained live throughout the election and into April 2020.

In December 2019, The Reporter revealed that several of the main domains promoted by the Qiqi News network trace back to a Malaysian individual, Yee Kok Wai (余國威). The Qiqi News Network is a subset of domains that ultimately trace back to another content farm operator located in Malaysia, Evan Lee. Lee runs a content farm platform that enables users to earn advertising money from the content they promote or generate. Any user can sign up and create their own content or website. Many of these domains spread disinformation through LINE groups in Taiwan. The platform is nominally financially motivated, but Qiqi News Network’s content leading up to the Taiwanese election exposes the porous border between financially and politically motivated information operations. Social media platforms often distinguish between financially and politically motivated disinformation actors; however, financial gains appear to occasionally be a bonus for politically motivated actors.

Profile pictures of fifteen pages belonging to the Qiqi News Network on Facebook. Many of the photos featured images of the same woman or a patriotic military theme. The full network we tracked comprised 55 pages, although 7 went offline during the observation period.

72 Pages promoting this network generally fall into two main groups. One group is a Qiqi News theme: these pages often have characters for “Qiqi” (琪琪, 琦琦, etc.) in their page names. The second group is the “Global Chinese Alliance network,” which often have the term “Global Chinese” (全球華人) in their page name. Since these networks promote the same content farms and show heavy coordination, we have considered them as one overarching network in our analysis.

73 In late 2019, The Reporter traced several large content farm networks back to Evan Lee, a businessman in Malaysia who allows users to create their own content and websites through his content farm “platform.” The operator of one of these smaller networks, GhostIsland News, claimed that Evan Lee’s nationality was Chinese. When The Reporter asked Lee about his nationality, he responded that it was a secret (J. H. C. Liu et al., 2019). Many domains from this network are known to disseminate disinformation in Taiwan; nine separate domains belonging to Lee’s network appeared in the Cofacts public database of debunked disinformation stories, representing 37 separate false stories.

Qiqi News Network Election Material

The Qiqi News Network was active in the Taiwanese information space in the lead-up to the election. Qiqi pushes a worldview closely aligned with the CCP, frequently uses mainland Chinese phrasings, and recycles articles from other news outlets, often Chinese state-owned media. Nearly all posts on Qiqi Facebook pages are links to domains that are high-volume producers of Qiqi News Network content. 0archive, a project from the Taiwanese civic hacking community g0v dedicated “to archiv[ing] and analyz[ing] Taiwan’s information space with open-source, automated tools, [and] producing open-source data sets and reports,” assembled 10,172 stories over an 18 month period in 2018 and 2019 from just two domains in this network, cnba.live and qiqi.today.

The network’s main focus is geopolitics, but a subset of articles relate to Taiwan and Taiwan’s internal politics. CrowdTangle data from December 2014 through March 2020 shows that Facebook pages promoting Qiqi content produced 2,843 posts using terms related to Taiwan, representing 2.0% of all posts from these pages during this period. Of those posts, 399 were published from October 2019 to January 2020.\(^75\)

\(^75\) This figure does not represent the total number of Qiqi news articles published on Taiwan, but rather how many of them were promoted on Facebook during this time frame (and not removed or deleted). For example, 0archive retrieved 94 Taiwan articles from the same timeframe from just two domains in the network. The ephemeral nature of these domains and posts is a challenge in tracking their content.
QiQi published a limited number of stories relating to Taiwan in the months leading up to Taiwan’s election, but those stories showed a clear pattern of opposing Tsai Ing-wen, criticizing the DPP, praising Han Kuo-Yu, and pushing a CCP-aligned view of Taiwan and geopolitics. Many of the stories used expressions exclusive to mainland China, including the Taiwanese leader (台灣領導人), Taiwan territory (台灣地區), and the Taiwan Authority (台當局/台灣當局). Researchers from Sway Strategy and the Taiwan Foundation for Democracy refer to these as “officialized terms’ of the Xinhua news agency,” a Chinese state-owned broadcaster, and noted several content farm groups using them on Facebook display coordinated behavior.76

Using data from Crowdtangle and 0archive, we analyzed Facebook posts and stories from this network relating to Taiwan in the months preceding the election.

One September 2019 story praises a photo of Han Kuo-yu at a public ceremony with the headline “Han Fans love this photo of Han Kuo-yu—Now this is how the leader of the Taiwan Territory should look!” The phrasing leader of the Taiwan territory (台灣地區領導人) insinuates that Taiwan is part of China and would typically only be used on the mainland.

In November, another article published on qiQi today criticized Taiwan’s repatriation of 126 Taiwanese students from the Chinese University of Hong Kong. This article originally ran in the Global Times, a CCP-sponsored tabloid, and uses the term “Taiwan authority,” a phrase exclusively used in mainland China.

台當局要從港中大接走126名台生, 網友：不是支持暴徒嗎？

“The Taiwan Authority wants to bring back 126 Taiwanese students from the Hong Kong University of China, Netizens [say]: isn’t that supporting the Rioters?”

76 Hsiao et al., 2019.
One October 2019 qiqi.today article, retrieved from 0archive’s dataset, invokes the term “Green Terror,” claiming DPP rule will bring economic ruin to Taiwan. The article claims to be quoting Taiwanese media, but a typo in the headline reveals the foreign origin of the writer. The Chinese term for terror, 恐怖, is mistakenly written in Hanyu Pinyin, a transliteration system used by mainland Chinese and foreign Chinese-language students, but not by the Taiwanese, who use zhuyin fuhao, a character-based method for typing characters.77

"Taiwanese Media: "Green Terror" will frighten away Taiwan's Economic Prospects, but the worst is yet to come" [Published October 13, 2019]
Stories about the unification of China and Taiwan abound on this network.

解放台灣明確時間表，這次真的要地動山搖！

A clear schedule for liberating Taiwan, this time will really be earthshaking!
[Published on November 14, 2019 on qiqi.today]

談統一就被攻及？洪秀柱嘆氣：台灣會走向絕境 [sic]

Getting attacked for talking about unification? Hung Hsu-chu sighs, Taiwan is in trouble.
[Published on November 21, 2019 on cnba.live]

Another article highlights a theme also encountered in Twitter’s attributed Chinese information operations archive: that while supporting Taiwanese independence is fine in Taiwan, supporters of unification are “attacked.”

不滿遭民進黨抹紅，邱毅：支持「台獨」沒事，支持統一要受攻擊

Dissatisfied from being smeared as pro-China by the DPP, Chiu Yi: Nothing happens when you support Taiwanese independence, but if you support unification you get attacked.
[Published November 16, 2019]

Twitter’s attributed Chinese information operations data and the Qiqi News Network show clear overlap in the content they promote. Like Chinese government actors, Qiqi ran a story on Han’s characterization of cross-Strait relations as “lovey-dovey” in early 2019. There is little evidence of the Qiqi News Network actively sowing a high volume of election-related disinformation in the lead-up to the election, but there is a clear pattern of Qiqi Facebook pages promoting CCP-aligned narratives in a coordinated manner.

⚠️ Archive captured this story on the domain qiqi.today. Google cache shows a full copy also was published on orgs.one, another domain in the network, on the same day.
One Qiqi domain covered Han Kyo-yu's characterization of China and Taiwan's relationship as "lovey-dovey." Chinese government accounts also spread links to coverage of this story in February 2019.

In total, the 48 pages from the Qiqi News Network that remained online through the observation period received 1.1 million interactions from October 2019 to January 2020. From April 2019 to April 2020, these pages garnered 4.89 million interactions. As of April 12, 2020, the pages had 838,583 likes.\(^{78}\)

\(^{78}\) These figures are from CrowdTangle as of April 12, 2020.
Qiqi News Network Stories Promoting a CCP Worldview

Several stories from the Qiqi News Network distributed disinformation or framed geopolitical events in a lens favorable to the CCP in the run-up to the election.

A Qiqi News Network story from qiqi77.online: "Iran reproaches America for meddling in Hong Kong matters. Using human rights as an excuse to publicly meddle in China's internal affairs."

A false story from the Qiqi domain ipipi.co claims the U.S. is sending ISIS terrorists to Afghanistan to stir up trouble in Xinjiang, a region in northwest China. This story emerged only days after the U.S. House of Representatives passed the Uyghur Human Rights Policy Act. The first sentence of the article paraphrases Chinese Vice Foreign Minister Qin Gang urging the U.S. to "correct its mistake" and "stop interfering in the Xinjiang matter and China's internal affairs."
Qiqi News Network Material Showing Links to the Chinese Government

One false story distributed by the Qiqi News Network in November 2019 was traced back to the official Weibo account of the CCP’s Central Political and Legal Affairs Commission (中共中央政法委員會). 79 According to Taiwan’s Digital Minister Audrey Tang, this account is “the Weibo account of the PRC’s main political and law unit.” The story alleged that Hong Kong rioters were offering rewards of up to $2.5 million USD for killing police officers. Despite having been debunked and attributed to the CCP, links to the story remained live on Facebook as of April 2020.

Domains in the Qiqi News Network were also present in Twitter’s attributed Chinese government information operations archive. In that data, five Qiqi domains—Mybezza.live, orgs.host, orgs.one, orgs.press and qiqi.today—were cited a total of 135 times. Most of the articles cited in these tweets are now offline, but 43 URLs are archived in the Wayback machine. Of those 43, nearly all are spam relating to food or lifestyle. One archived article is politically themed80 and celebrates Chinese control

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79 Taiwan FactCheck Center, 2019a.
80 Several possibilities exist for why many of the Qiqi articles shared by Chinese government actors were apolitical. Sharing food and lifestyle articles could be a means of audience building for attracting readers who would not typically engage with political content, which would ensure a widespread and receptive readership for more consistent political messaging later. Another possibility is that political worldviews and/or disinformation could be injected into relatively apolitical content as a means of more insidious persuasion. This was a tactic used by Lyudmila Savchuk, a former employee of Russia’s Internet Research Agency (IRA), when she worked as a contracted troll at the firm for the Russian government. Savchuk’s “Cantadora” blogging persona mainly wrote about spirituality and fortune-telling, but occasionally injected geopolitical narratives into her posts that favored Russia and promoted a Kremlin-aligned worldview (Chen, 2015).
of the Gwadar Port in Pakistan, a 2013 Sino-Pakistani deal that has sparked security concerns in India, the U.S., and elsewhere because of its perceived strategic significance.

Signs of Coordinated Promotion of the Qiqi News Network

There were evident signs of coordination in the distribution and promotion of Qiqi stories. For example, the Qiqi News Network websites repeat many of the same design elements. In the six months preceding the election, the 48 Facebook pages we observed consistently promoted the same domains simultaneously. For a period of 2-3 months, a handful of domains would host Qiqi news stories and be promoted by the Qiqi network’s Facebook pages. These would then be phased out as the content disappeared, only to reappear on a new set of domains. The graphic below illustrates how promotion of these domains on Facebook was coordinated over time, showing clear peaks and troughs across different sets of domains.

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82 Small, 2015.
Content farm domains promoted by the Qiqi News Network. The 48 pages in the network showed clear signs of coordinated promotion of dedicated domains for several months before moving to a new set of dedicated domains. In early 2019, sites such as qiqi.world, i77.today, cnba.live, and defense.rocks were consistently cited in posts. After July 2019, new sites such as kikiz.xyz, ititi.pro, iqiqi.pro, and ikiki.xyz hosted Qiqi content, only to be replaced by a new set of domains in the months preceding the 2020 election.
Stories from this network also often appeared at the same moment on multiple Facebook pages. One story about the Solomon Islands switching diplomatic recognition from Taiwan to China in 2019 (pictured below) appeared on seven Facebook pages within two minutes.

Multiple forensic signals tie these sites to the same actor. The same three Google Analytics accounts recur in the source code for many of the websites. Working with data provided by The Reporter, we found an additional 22 sites belonging to the network.

After December 2019, Qiqi News sites were privately registered and Google Analytics codes removed from the source code. However, the themes in content, the source code for the domains, and their coordinated distribution on the same Facebook pages all clearly suggest they are still operated by the same actor.

83 This story appeared on four Facebook pages in the network at the same minute. This story also spread in simplified Chinese elsewhere on the web with the phrase “Taiwan is useless” (台灣毫无用处) added to the headline. The story refers to Taiwan’s president as “Province Leader Tsai” (蔡省長), which asserts Taiwan is part of China.

83 This network shows 431 content farm domains that trace back to Evan Lee, an individual based in Malaysia. Unlabeled nodes represent websites, and labeled nodes represent common forensic signals, such as Google analytics codes or IP addresses, that they share in common. The Taiwanese news outlet The Reporter uncovered 409 domains belonging to this network in December 2019 (Kung et al., 2019). Our investigation uncovered 22 additional domains belonging to the network.

The Qiqi News Network’s coordinated promotion combined techniques observed in previous disinformation case studies. Recycling copy-pasted or slightly altered stories from other outlets, particularly from Chinese state media, facilitates information laundering.\textsuperscript{84} The temporary use of domains is a growing trend in disinformation and bears some resemblance to Iranian “ephemeral disinformation” techniques explored by Citizen Lab in 2019.\textsuperscript{85}

Coordinated promotion of the larger set of 431 domains belonging to Evan Lee was also present on Twitter. Several Facebook accounts used Twitter for the sole purpose of promoting these domains and their corresponding Facebook pages. We found 104,102 tweets\textsuperscript{86} citing domains belonging to Evan Lee dating back to 2007. Only 12\% of the users in this set appeared to be bots, but those users accounted for 32\% of citations of Evan Lee domains on Twitter. Of the 920 tweets in this set citing keywords related to Taiwan, 463 (50\%) come from accounts showing signs of automation. Several high-volume citers of these domains averaged superhuman numbers of tweets per day. For instance, @lardnerpepper cited Evan Lee domains 4,004 times and posted 140 tweets per day. @realmhumanpraise cited Evan Lee domains 304 times and averaged 475 tweets per day. “Nancy Yang,” one of the fake accounts that drove a cross-platform, post-election disinformation campaign about President Tsai’s Ph.D., also frequently cited Evan Lee domains on Twitter.

**Other Disinformation During the Election**

**YouTube and the Rise of Video Disinformation**

Facebook and LINE continue to be prominent vectors for disinformation, but there has been a significant uptick in the use of YouTube to distribute propaganda. Billion Lee, co-founder of Cofacts, noted the improved production value of channels distributing false information on YouTube: “You can see a lot of different kinds of really nicely edited videos with a lot of special effects, really hard-working YouTube

\textsuperscript{84} Schafer, 2018.
\textsuperscript{85} Lim et al., 2019.
\textsuperscript{86} These tweets garnered a total of 331,889 interactions (likes, retweets, and replies).
channels. Much more like propaganda.” In the over 14,000 items Cofacts has labeled “containing misinformation” since late 2016, YouTube is the single most frequent domain, with 1,663 false stories in the Cofacts archive. Graphika has evaluated assets removed from platforms because of their affiliation with Chinese information operations on multiple occasions since September 2019 and noted YouTube’s prominence. Beyond YouTube, video content’s role in Taiwan’s disinformation sphere is growing. Rumors previously debunked in text have begun re-emerging in video form, often on content farm domains belonging to Evan Lee, such as kanwatch and beeper.live. In the 6 months preceding the election, Cofacts debunked several YouTube videos alleging that Tsai Ing-wen’s Ph.D. and legal credentials are fake.

**Disinformation Targeting the Democratic Process Proliferates Before, During, and After the Election**

False stories about the integrity of the election’s administration and Taiwan’s Central Election Commission (CEC) circulated on social media from December 2019 through January 2020.

One instance involved the numbers assigned to presidential candidates. In Taiwan, citizens vote for a number that represents a candidate. In 2020 the number 2 represented KMT candidate Han Kuo-yu and 3 represented DPP candidate Tsai Ing-wen. Shortly after the numbers were randomly assigned in December, stories circulated online assigning the wrong number to candidates.

As voting day approached, rumors about the election and voting process proliferated on LINE and Facebook. December’s included:

- After December 31, citizens would be fined $500,000 NT if they shared election polling data online, especially if the Anti-Infiltration law were passed.
- The CEC would be using a new form of ink that does not dry easily, which would invalidate votes for Han Kuo-yu.

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87 Nimmo et al., 2019.
89 Stanford Internet Observatory, 2019b.
90 Taiwan FactCheck Center, 2020a.
91 Taiwan FactCheck Center, 2019b.
In January, both before and after the vote, rumors included:

• The official country name (“Republic of China”) was not printed on official ballots.92
• Votes would not be called out publicly at the polls as normal.93 Optical recognition scanners would be used instead.94
• The total votes received by the three presidential candidates surpassed actual voter turnout.95
• The CIA helped Tsai rig the election using invisible ink on the ballots distributed by the CEC.96
• The CEC decided to send voter information packets only 2 days before the election, rather than weeks before, as in past years.97 This rumor used a term for fishy, 貓膩, that is used exclusively in mainland China but not Taiwan.
• The night before election day, a post claiming that a new strain of SARS was detected in Taiwan spread widely.98 The post warned voters to proceed with caution at the polls.99 Identical copies of the message spread on both LINE and Facebook.100

92 Taiwan FactCheck Center, 2020b.
93 This rumor, targeting the voting process itself, was particularly significant given that Taiwan’s transparent vote-counting system and paper ballots are a hallmark of their secure elections (Feng, 2020).
94 Taiwan FactCheck Center, 2020c.
95 Taiwan FactCheck Center, 2020e.
96 Taiwan FactCheck Center, 2020f.
97 Taiwan FactCheck Center, 2019c.
98 This rumor predated the international coronavirus crisis: there were confirmed cases only in China at this time (Taylor, 2020).
99 Taiwan FactCheck Center, 2020d.
100 One interviewee expressed fears that this rumor was an attempt to suppress voter turnout.
The false stories targeting the election that the TFC debunked were in most cases copy-paste, text-based disinformation, making them harder to attribute through standard digital forensic investigation techniques.

**Facebook Follower and Like Irregularities**

Building on our 2018 analysis, we observed likes and follows for 268 Facebook pages representing politicians and political parties running in the January election. Most candidates experienced a steady rise in followers from December 12, 2019 to election day on January 11, 2020. The most notable irregularity in the data was James Soong, a third-party presidential candidate running for the People's First Party (PFP). Between December 12 and December 16, Soong's official page gained over 500,000 likes and nearly 500,000 followers. This represented a 356% increase in followers and a 359% increase in likes that essentially occurred overnight. In the following weeks, Soong only gained 20,000 additional likes and followers.

On January 10, the night before the election, a message claiming new cases of SARS had come to Taiwan circulated on LINE and Facebook, Taiwan’s most popular social media platforms. [Photos: Taiwan FactCheck Center.]
Soong’s increase is all the more suspicious given that the official page for his party gained only 2,026 follows (a 9.4% increase) and 1,201 likes (a 6% increase) in the entire month before the election. Among the eight other PFP politicians in our set, Lee Chung-hao (李正皓), a New Taipei City candidate for the Legislative Yuan, experienced the next highest rise in followers during that time frame, with an increase of 2,508. In our assessment, Soong’s suspicious gain of nearly half a million followers over 4 days is unlikely to be organic.

In contrast to 2018, in the lead-up to the election Han Kuo-yu’s likes and follows rose at a rate that was likely to be organic. Tsai Ing-wen and Han Kuo-yu both received their biggest increase in the 3 days before the election, with 35,011 new followers for Tsai and 15,018 for Han.
Part II: Post-Election Disinformation Targets
Tsai Ing-Wen and the DPP
Although disinformation was common in the lead-up to the election, the post-election period saw even more significant disinformation campaigns targeting Tsai Ing-wen and the DPP. This included a coordinated domestic campaign falsely alleging Tsai’s Ph.D. dissertation is fake and a sustained, China-linked coronavirus disinformation campaign with clear goals of sowing panic and delegitimizing the DPP.

**Domestic Campaign to Discredit the DPP: Coordinated Promotion of Fake Ph.D. Rumor**

In the period following the election, a network of users employed fake accounts and bots to amplify the conspiracy that Tsai Ing-wen’s Ph.D. is fake on Facebook, Instagram, and Twitter. This rumor has been repeatedly debunked, including in October 2019, when the London School of Economics and Political Science (LSE) published a statement verifying the authenticity of President Tsai’s doctorate.

**First petition: Call on the U.S. Government to Investigate Tsai Ing-wen**

On February 21, 2020, a month after Tsai’s re-election, a petition written in broken English appeared on the U.S. government petition website, WeThePeople, asking the U.S. to investigate the authenticity of Tsai Ing-wen’s Ph.D. The petition’s text claims the “Ing-Wen Tsai regime [...] is trampling on democracy, freedom, & the law in Taiwan,” attacks the December 2019 Anti-Infiltration Law as a barrier to freedom of speech, and alleges that Tsai won the election “[u]nder the suspicion of fraud.”

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101 J. Michael Cole highlighted that the conspiracy around Tsai Ing-wen’s Ph.D. was also circulating leading up to the election. Cole highlighted that some of this disinformation is suspected to emanate from “people who historically have belonged to the green camp, so pro-DPP who are also now generating disinformation targeting Tsai Ing-wen, because they resent her because she’s supposedly not strong enough on countering Chinese influence.”

102 London School of Economics and Political Science, 2019.

103 We the People, 2020.
Over the following month, a small network of users heavily promoted the petition link on Facebook, Instagram, and Twitter. Between February 21 and March 27, we collected 1,296 citations of the URL in posts on public Facebook groups and pages. These posts targeted a total of 177 groups and pages with links to the petition, often using identical messages: 42% of the citations (545 posts) targeted just 10 groups, nearly all of which name KMT candidate Han Kuo-yu in their page and group names; 33% of these posts come from the top 10 most active users in the set, several of which show signs of being the same entity.

104 We used the CrowdTangle extension to collect these posts.
Several posts included instructions and links to YouTube videos in Chinese explaining how to navigate the U.S. government’s English-language website to sign the petition.

By March 27, shares on Facebook had resulted in 48,179 interactions with the petition link on the platform. The petition collected a total of 42,347 signatures, which suggests that nearly every interaction these posts received translated into a petition signature.

As of March 31, the link to the petition had been cited 242 times on Twitter: 42% of the 69 users citing the link show signs of automated activity, and two accounts were responsible for 49% of the traffic. These two accounts are also run by the same entity driving the small Facebook network promoting the petition. One of these Twitter users, using the display name Nancy Yang, also frequently cited Evan Lee’s content farms on Twitter.

This was determined by analyzing several commonalities between these accounts. The two Twitter users’ handles, profile photos, and display names are the same as two corresponding users on Facebook.
Two Twitter accounts simultaneously link to the U.S. petition to investigate Tsai Ing-wen’s Ph.D. These users allege that Tsai Ing-wen manipulated the vote and have identical Twitter timelines from February 25 to March 25, 2020. They also have corresponding accounts driving the same campaign on Facebook.

One of the accounts, likely to be Chinese, spreading coronavirus rumors targeting Taiwan in late February, @CNMTIMECHINESE, also encouraged users to “refuse the fake president” by signing the White House petition to investigate the authenticity of Tsai Ing-wen’s Ph.D.
Disinformation Petition Spreads to Traditional Media in the United States

We also observed coordinated offline promotion of this petition in traditional media in the U.S. While the petition was live, several U.S.-based Chinese-language newspapers printed articles or advertisements urging the Chinese diaspora to sign the petition. Chinese of Chicago, the St. Louis Chinese Journal, Chinesejournals.net, Sing Tao Daily, and the Southern Daily all contained identical text appealing to readers to sign the petition.
From a group of people who love justice, democracy and the rule of law:

In light of Taiwan’s current gloomy political climate, we seriously doubt the Tsai Ing-wen ROC government’s ability to maintain democracy, freedom, and Tsai Ing-wen’s sincerity, character and virtue in serving as the president of the ROC. We hope America, which has always been a good friend of the Taiwanese and valued human rights, democracy and the rule of law, will be able to assist the Taiwanese people, by investigating Tsai Ing-wen’s fake dissertation and fake Ph.D., which she has concealed for 36 years. In addition, through public safety laws and the anti-infiltration law, the Tsai administration has impinged on the people’s freedom of speech, and may well have scandalously electronically manipulated votes in the 1.11.2020 presidential election.

We earnestly hope the Trump Administration in the U.S. can provide assistance in investigating. This petition is from a group of people who love the ROC in earnest hope that others who passionately love the ROC will courageously speak up against injustice and seek truth. Please everyone join together in promoting and passing on this petition, send this link to people or social media groups. Regardless of nationality, anyone can sign the petition and call on America to listen to the voice of the ROC to prevent Taiwan from becoming an autocratic and dictatorial nation.

Thank you all from the bottom of our hearts.

Second Petition Falsely Claims Taiwan’s Digital Ministry Hacked WeThePeople

The day after the first petition closed, a second petition was posted on WeThePeople. The new submission baselessly alleged that Taiwan’s Digital Minister, Audrey Tang, had directed a hacking operation to ensure the failure of the first petition and demanded the U.S. investigate Tang. This petition displayed coordinated promotion from the same set of users on Twitter and Facebook, who spread the link to the second petition and asked readers to “remember your experience from the last petition” and make sure to avoid using an email address with Taiwan’s top-level domain, .tw.

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106 ROC stands for “Republic of China” (中華民國), Taiwan’s official name.
A formulaic text contained in several of these posts on Facebook and Twitter reads:

This is the second wave of petitions. The more pressure you put on, the more unified we'll be. Don't submit to evil forces! (Sign) the petition on empty-hearted Tsai's dissertation-gate, appeal to the White House to investigate the truth.

Please remember the experience from the last petition - don't use a .tw email address to sign the petition under any circumstances!
Foreign Attempts to Delegitimize the Taiwanese Government: Chinese Coronavirus Disinformation Targets Taiwan
In recent years, health-related disinformation has been extremely common in Taiwan. Several experts thought that the volume of this type of content surpassed even political disinformation. Digital Minister Audrey Tang noted that “most viral rumors are not political, they are about food safety, they are about health [...] That is dominant. And I would say the political use is parasitic upon these economically motivated content farms.” Similarly, Jason C. H. Liu of The Reporter echoed Minister Tang: “I think the health issue is a problem. I don’t think disinformation only has a role in politics. It has a bigger role actually for public health because you see that many of the elderly citizens are confused by the information they see every day. And there’s a big number of them, they follow the suggestions from the information they get [online].”

In the months following the election, the coronavirus quickly grew from a local epidemic in China’s Hubei province to a global pandemic. In being both a political and a health crisis, the coronavirus was a perfect storm for disinformation contagion: countries around the world were quickly inundated with mis- and disinformation related to the virus, in what the World Health Organization (WHO) referred to as an “infodemic.” Graphika created and analyzed a number of globally focused network maps on the online COVID-19 conversation for its report, “The COVID-19 Infodemic.” The report found that Chinese-language accounts actively shared content designed to stoke geopolitical tensions between the U.S. and China and, more generally, to undermine the credibility of U.S. institutions. Similar efforts to stoke these same geopolitical tensions were also noted among U.S. accounts.

In late February and early March, Chinese users organized a coordinated disinformation campaign smearing the Taiwanese government on Facebook, Twitter, and YouTube. Rumors spread included that the government was

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107 That is, political disinformation campaigns use the same infrastructure and tactics that are used for health or commercial astroturfing.
108 (Frenkel et al., 2020; Tardáguila, 2020; World Health Organization, 2020)
109 (Smith et al., 2020)
covering up domestic cases of the coronavirus, the DPP was profiting off of the disease, and bodies were being burned en masse or buried secretly in construction sites. Chinese Weibo users openly bragged about spreading these rumors on Facebook.  

Coronavirus disinformation targeting Taiwan did not stop after this first wave of citizen-led attacks. Throughout March, Chinese-language disinformation targeting Taiwan continued to proliferate online. Screenshots of false information on Facebook from the initial, February campaign continued to be used on Twitter to falsely allege the situation was worse than the Taiwanese government admitted. Several users on Twitter mistakenly mixed simplified and traditional characters, revealing their mainland origins. Several posts used the hashtag #台湾肺炎 (#TaiwanPneumonia), suggesting the virus started in Taiwan. Other accounts stole logos and photos of real news outlets, spreading coronavirus disinformation while posing as Chinese or regional branches of established news outlets.

One user’s account posed as the Chinese-language version of the Associated Press and used the same “V” icon that Weibo uses for verified accounts. ProPublica also observed imitation of news outlets in a suspected state-sponsored Chinese coronavirus disinformation campaign.  

110 (Monaco, 2020)  
111 Kao & Li, 2020.
A Twitter user spreads coronavirus disinformation targeting Taiwan. This user attempts to use Taiwan's traditional Chinese characters in the tweet but uses several simplified characters mistakenly, indicating the writer is Chinese.

A pair of identical tweets from an account posing as the “Japanese Branch” of a local Chinese TV station in Jiangxi province spreads graphic disinformation about the coronavirus in Taiwan using the hashtag #TaiwanPneumonia. These tweets also mix simplified and traditional characters and falsely claim that over 2,000 people were infected in Taiwan. The country had fewer than 35 cases at the time of these posts (Taiwan Centers for Disease Control, CDC, 2020).

Five more Twitter accounts spreading coronavirus disinformation targeting Taiwan make writing errors revealing Chinese origins. The term “corpse,” a two-character word, is often mistakenly written with the first character in simplified Chinese and the second in traditional.
As was the case with many articles from the Qiqi News Network, accounts in this set frequently used phrases and terms that are common in mainland China and simply not used in Taiwan. Beyond word choice, other telltale mistakes occurred at the character level. A significant number of accounts targeting Taiwan with coronavirus disinformation throughout February and March revealed themselves to be Chinese through a poor grasp of Taiwan’s traditional character writing system. The term “corpse” in particular was a shibboleth for dozens of accounts. The two-character word is written differently in traditional and simplified Chinese. Dozens of accounts spreading Chinese-language coronavirus disinformation correctly converted the second character to traditional, but failed to convert the first.

<table>
<thead>
<tr>
<th>Traditional Characters (Taiwan)</th>
<th>Simplified Characters (China)</th>
<th>Mixed (Mistaken, Used by Chinese Disinformation Accounts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>尸體</td>
<td>尸体</td>
<td>尸體</td>
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</table>

Another disinformation tweet with over 200 interactions reads:

"#TaiwanOutbreakSituation #Taiwan [Breaking Taiwan’s Disease Situation is getting more serious] While Tsai Ing-wen is hiding graves, Taiwan’s pneumonia (coronavirus) situation is obviously spreading quickly. Hospitals are full of patients, nurses are busy. The outlook isn’t good. As of 2/27 at noon, over 3,000 people have been infected and over 100 have died. This picture is of a mass burial site. Ai Lei, reporting for you."

112 Mandarin Chinese is widely spoken in Taiwan, but the island also speaks Taiwanese, a variant of Southern Min Chinese (閩南語), which is not mutually intelligible with Mandarin. In contrast to Cantonese, a relatively well-standardized Chinese language, Taiwanese still has at least three writing standards (Lin, 2015). This substantially increases the difficulty of localizing text-based messaging into Taiwanese. Nonetheless, localizing messages on social media for a Taiwanese audience using Taiwanese expressions is something that is clearly receiving attention in mainland China. A 2017 paper from a graduate student at the PLA National Defence University explores syntactic and lexical aspects of Taiwanese that are used on PTT, a popular Taiwanese social media platform. The paper notes, “In a social media environment that is full of Mandarin and Southern Min mixed together, if a sentence with an obviously northern [Chinese] expression style appears, it will easily stand out, and can attract other users’ attention, becoming an invisible wall between you and the online community” (Lai, 2017).

113 Monaco, 2020.
Chinese-language Disinformation Targets Other Countries

The campaign against Taiwan clearly aimed to delegitimize the government and sow panic, and Chinese-language disinformation targeting other countries spread on Twitter and Facebook in February and March as well.

In one campaign, several countries were targeted with a formulaic message on Twitter claiming that the pandemic had spread out of control. Four screenshots above show identical text targeting Canada, Finland, Japan, and the United States. 114

____ has already lost control of the pandemic. I heard from a friend in a _____ hospital that numberless people are trying to get diagnosed every day, but there are no tests, they just get sent back home. ____ has a large elderly population, lots of them just have to die at home. If you don’t get diagnosed, then you don’t count as having got the disease, which is how ____ is keeping its numbers so low. It’s so scary. I already reserved my plane tickets home. In critical moments we have to concentrate efforts to tackle a great challenge!

114 This last sentence,关键时刻还是得集中力量办大事呀, reads ambiguously in Chinese, along the lines of “we have to concentrate efforts to do a big thing”. The implications here could be that societies have to generally band together in tough times to overcome a crisis, or that authoritarian concentration of power is necessary to tackle the current coronavirus pandemic.
The post was seeded by a small number of users on Twitter but recognized as copy-paste disinformation by savvy users, which resulted in the text becoming a meme and appearing in over 1,000 Tweets. Users poking fun at the message claimed that the pandemic situation had become uncontrollable on the moon and Mars.

The Qiqi News Network, the content farm network that we observed coordinating promotion of information showing signs of Chinese origins during the Taiwanese election, also ran several stories during this time spreading false information about the virus. One video from funnies.xyz falsely claimed the Japanese television station Asahi Shimbun (ANN) suspected the coronavirus originated in the United States. At the same time, The People’s Daily and the Global Times, Chinese state-owned media outlets, also published English-language stories spreading this rumor. The Taiwan FactCheck Center debunked this rumor, which went viral online in early March, finding that the actual ANN report made no such claim.

\[115\] The day after publishing this story, the People’s Daily also published another conspiratorial coronavirus article citing a YouTuber who claimed the U.S. Centers for Disease Control and Prevention (CDC) had covered up cases of the coronavirus in the U.S. (Monaco, 2020; The People’s Daily, 2020b).


\[117\] Taiwan FactCheck Center, 2020g.

After Chinese MFA Spokesperson Zhao Lijian cited a conspiratorial article hinting the coronavirus may have originated outside of China, users on Twitter and Facebook spread false messages claiming the virus came from the USA.
A separate print story from iqiqis.com, another domain in the QiQi network, ran a story with a headline alleging the virus originated in the U.S.: "Confirmed. America is the Source of the Coronavirus. America Lied to the Whole World."

This story garnered over 31,000 interactions on Facebook within days of being posted, over 7,000 of them on CNBA.live, one of the QiQi News Network Facebook pages. One Facebook user shared the article to 10 different groups within 1 minute of publication. The headline is demonstrably false, and the QiQi story itself is relatively incoherent and fails to lay out a cogent argument about the origins.

Yet another story from the network bears the headline "Truth Hammer: Many countries recognize that the virus comes from America! The Truth can't be Hidden." Significantly, this story is based on the refuted

A video from funnies.xyz (left), a domain in the QiQi News Network, falsely claims a Japanese TV station reported the coronavirus likely originated in the U.S. Chinese state outlets The People’s Daily (right) and The Global Times also spread this rumor.

A story from the QiQi News Network spreads disinformation that the coronavirus originated in America. This story appeared on March 19, a week after Chinese Ministry of Foreign Affairs Spokesperson Zhao Lijian began alleging that COVID-19 may have originated in the U.S.

One Facebook user spread this QiQi News Network story with a false headline to 11 groups in less than a minute. The headline of the QiQi story reads: "Confirmed. America is the source of the Coronavirus. America Lied to the Whole World."

Foreign Attempts to Delegitimize the Taiwanese Government: Chinese Coronavirus Disinformation Targets Taiwan 

The Dragon’s Digital Fingerprint: Tracing Chinese Disinformation in Taiwan
globalresearch.ca article\(^{118}\) that Chinese Ministry of Foreign Affairs spokesman Zhao Lijian linked to on Twitter when he and other Chinese officials began questioning whether the virus originated in China.\(^{119}\) That article itself cites several Chinese state media sources to make its assertions.

Implications of International Chinese Coronavirus Disinformation

This COVID-19 disinformation campaign is significant for several reasons. First, the messages clearly aim to delegitimize the DPP and newly re-elected President Tsai, showing the underlying political nature of this anti-Taiwan campaign.\(^{120}\) Persisting into April 2020 and beyond, its sustained nature reveals a long-term goal to sow panic and undermine trust in the government. Second, the campaign occurred at the same time as a messaging campaign from Chinese officials questioning the coronavirus’s origins, on one hand, and strong-arming the World Health Organization (WHO) into avoiding acknowledgment of Taiwan’s successful efforts against the virus, or even its very existence, at the same time.\(^{121}\)

\(^{118}\) Before the covid-19 crisis, several expert organizations had previously highlighted Globalresearch.ca as a disseminator of dubious and false information, these include NewsGuard and the Atlantic Council’s DFRLab.

\(^{119}\) Broderick, 2020.

\(^{120}\) Monaco, 2020.

\(^{121}\) Schrader, 2020; The Economist, 2020b.
Taiwan notified the WHO that the disease could potentially spread from person-to-person as early as December, but it has consistently been left out of the WHO’s global efforts against the virus.122 While China is promoting the successes of its response to the coronavirus (which relied in large part on authoritarian measures), Taiwan demonstrates the success that a democratic society can have in holding a pandemic at bay while also preserving freedoms. Despite Johns Hopkins University’s late January finding that Taiwan was in the top five highest risk areas for coronavirus contagion because of its proximity and links to China, Taiwan’s response to the virus is among the most successful in the world, with fewer than 442 cases and only seven deaths as of May 31, 2020.123 In contrast, China’s failed attempts to keep the virus secret in early December, as well as its probable underreporting of figures—pignant illustrations of the shortcomings of its authoritarian response to the virus—are notably absent in this narrative.124

It is unclear whether the Chinese coronavirus disinformation accounts examined above ultimately lead back to the Chinese government, but the campaign’s implications are significant regardless. On one hand, a state-sponsored campaign would represent an unprecedented attempt to politically capitalize on a global health crisis. On the other, a citizen-led initiative to discredit the Taiwanese government and sow doubt about the origins of the virus would arguably represent one of the greatest successes of the CCP’s domestic propaganda to date.

123 Gardner et al., 2020; Griffiths, 2020.
Conclusion
In this report, we have examined disinformation in Taiwan before, during, and after the January 2020 election. Disinformation during the election targeted Taiwan’s voting process and its Central Election Commission. Stories from a Malaysian content farm network were promoted in a coordinated fashion, many of which displayed behaviors and linguistic cues indicating mainland Chinese authors. The post-election period saw several waves of disinformation aimed at delegitimizing the newly re-elected Tsai Ing-wen and her DPP party. A coordinated, domestic campaign falsely alleged Tsai’s dissertation was fake and called on the U.S. government to investigate. A coronavirus disinformation campaign propagated by Chinese accounts targeted Taiwan, as well as the international community, with false information. At the same time, Chinese government officials began publicly casting doubt about the origins of the virus on Twitter and in press conferences.

As we have catalogued in this report, online disinformation clearly plays a role in Taiwan’s politics. Nevertheless, Taiwan is a model of successful mobilization against false information. Several civil society groups—g0v.tw, Cofacts, DoubleThink Labs, Fake News Cleaner, MyGoPen, the Taiwan FactCheck Center, RumToast, and others—remain dedicated to fact-checking and open-source collaboration to combat the problem. Facebook has exerted considerable effort to combat disinformation on the island, operating a dedicated war room during the 2020 election and removing inauthentic behavior from several pages and groups. The government, particularly under Ministers Lo Ping-cheng and Audrey Tang, has undertaken many initiatives to combat false information, including M-learn, a program to increase digital literacy in grade school.
Discussing the difficulty of working on disinformation, Minister Lo candidly stated: “This is an everlasting work.” He went on to invoke a Chinese saying 道高一尺，魔高一丈, “as virtue rises one foot, vice rises ten.” This is a problem that will never disappear, but “failure is not an option.”

Even so, Wu Jun-deh of the Institute for National Defense and Security Research remains optimistic: “Although the disinformation problem is serious, I’m not worried too much about that. Because we’re not going back, it is impossible to go back to authoritarian rule [...]. I am not pessimistic about Taiwan and disinformation, because our citizens are aware of the problem, and they are learning.”

Considering the parallel development of digital technology and Taiwan’s democracy, Digital Minister Audrey Tang finds defining aspects of Taiwan’s identity in the struggle and looks with hope toward the future:

*The same year we got personal computers and martial law was lifted was literally the same year that we saw world-wide web adoption and had our first presidential election. So from the beginning, we’ve seen democracy as a technology, [...] Because it just coincidentally appeared the same year as internet technologies, it’s natural for us to look at the synergy of the two technologies—they’re both social technologies after all.*

*The core idea of the internet, the end-to-end principle, innovation without permission, and things like that, have become the defining characteristic of Taiwan in this century. And because of that, I think part of Taiwanese politics and Taiwanese identity is that we will not go back to the authoritarian past, and that Taiwan’s defining characteristic is that we are agile enough to experiment and deploy the latest in social technologies to ensure a free and vibrant liberal democracy.*
Datasets and Methodology Appendix

Qualitative Research

For the qualitative portion of this project, we interviewed experts from a diverse range of professions who work closely on issues related to disinformation in Taiwan. We conducted 15 semistructured interviews with 17 interview subjects. These interviews spanned November 2019 through late January 2020. The subjects’ professional backgrounds were all relevant to the topic of disinformation in Taiwan but varied widely and included members of civil society, journalists, academics, government officials, and technologists. This section of the report reflects knowledge gleaned from these interviews and an exhaustive literature review of material relating to disinformation in Taiwan.

Bots

In our original analyses of Twitter data in this report, references to “bots” denote accounts that receive a greater than 50% probability of being automated. IFTF used Indiana University’s Botometer API to obtain these scores (Davis et al., 2016). For an input Twitter account, Botometer outputs a value between 0 and 1, representing the probability that the given account is automated. Accounts with a greater than 50% probability of being a bot may still be operated by humans, but we have found the tool to be a reliable signal of automated activity, particularly in tandem with other investigative signals.

Two values can be used for this value: one is an English language-specific score, which is the result of an enhanced machine learning classification algorithm that uses a suite of natural language processing (NLP) features extracted from English text. Given that the majority of Twitter accounts analyzed in this work did not tend to tweet in English, we have instead used the “universal” probability for accounts, which does not take language-specific NLP data into account in the classification process. An example of the response JSON retrieved from Botometer’s API, along with “english” and “universal” values, can be seen here.
Taiwan Keyword List

When working with large datasets from Twitter, Facebook, and g0v.tw’s 0archive, we used a list of 471 keywords relating to Taiwanese politics and the 2020 election to extract posts that were relevant for analysis. These 471 keywords include English and Chinese terms relating to the election, prominent Taiwanese politicians, presidential and legislative candidates running in the 2020 election, and political parties that ran in the election. This list of keywords is publicly available on Github [here](#).

Twitter Stream

Using the Twitter Streaming API, we collected tweets using keywords, accounts, and hashtags relating to the Taiwanese election in the month leading up to the election, from 12/11/2019 to 01/15/2020. This stream captured 1,843,800 tweets from 703,559 users. The stream query we used follows below.

#TaiwanElection,#Taiwan2020, #TaiwanVotes,@iingwen, #tsaiingwen, tsai ingwen, tsai ing-wen, cai yingwen, cai ying wen, cai ying-wen, caiyingwen, @hankuoyutw, #hankuoyu, han kuoyu, han kuoyu, han guoyu, han guo yu, han guo-yu, hanguoyu, taiwan, #taiwan, KMT, DPP, Soong Chu-yu, #soongchuyu, soong chu yu, soongchuyu, songchuyu, song chu yu, 台灣,台灣選舉,台灣投票,蔡英文,韓國瑜,宋楚瑜,民進黨,民主進步黨,中國國民黨,國民黨,一邊一國行動黨,合一行動聯盟,人民民主黨,中華統一促進黨,統促黨,新黨,台灣民眾黨,時代力量,安定力量,台灣綠黨,民主進步黨,國會政黨聯盟,台灣,台灣選舉,蔡英文,韓國瑜,宋楚瑜,民進黨,民主進步黨,中國國民黨,國民黨,一邊一國行動黨,合一行動聯盟,人民民主黨,中華統一促進黨,統促黨,新黨,台灣民眾党,时代力量,台湾绿党,民主进步党,中国国民党,亲民党,无党团结联盟,台湾团结联盟,台湾绿党,民主进步党,中国国民党,亲民党,无党团结联盟,台湾团结联盟,树党,社会民主党,中华民族致公党,劳动党,国会政党联盟
**Graphika Maps**

Graphika generated two maps for this project, one on Facebook and one on Twitter. These maps are used to visualize online networks of accounts or pages that are relevant to a given topic, in this case, the January 2020 Taiwan election. Clusters of accounts within these maps are determined by Graphika’s attentive clustering algorithm as distinct interest-based communities online. These communities are a set of Twitter users or Facebook pages that follow or like similar accounts or pages, depending on the platform. The clusters are determined algorithmically, and then Graphika’s analysis team reviews and amends machine learning-suggested labels for these clusters to ensure utmost accuracy. Groups comprise a set of one or more clusters and are also determined by a human analyst. The Twitter map used in this study consisted of 13,875 Twitter accounts, which were divided into 61 clusters and 8 groups. The Facebook map consisted of 8,061 Facebook pages, which were divided into 47 clusters and 9 groups.

**CrowdTangle**

IFTF used both CrowdTangle and the CrowdTangle Extension to analyze Facebook data. For our analysis of the Qiqi News Network on Facebook, we analyzed a total of 139,538 Facebook posts ranging from December 2014 to March 2020, which were retrieved from CrowdTangle.
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