Graphika

Operation Naval Gazing

Facebook Takes Down
Inauthentic Chinese Network

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09.2020

Takedowns

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Executive Summary

On September 22, 2020, Facebook announced that it had taken down a cluster of fake assets on Facebook and Instagram that it attributed to individuals in China. The assets posted about a range of issues in Chinese, English, Filipino, and Indonesian, including a small volume of content on the U.S. 2020 election, but they showed a particular interest in maritime security, especially in the South China Sea. For this reason, we have dubbed this activity Operation Naval Gazing.

This is the second time that Facebook has attributed a takedown set to actors in China.[1] In August 2019, the platform took down seven pages, three groups, and five accounts that mainly posted about the Hong Kong protests from a pro-China point of view; Facebook attributed that activity to "individuals associated with the Chinese government." The latest takedown was larger and wider ranging, but it, too, primarily posted about regional issues from a pro-China perspective.

Before the takedown, Facebook shared a list of assets with Graphika for independent analysis.

Operation Naval Gazing enlarges our understanding of information operations emanating from China. Some of its content reflected Chinese messaging, both overt and covert, on issues such as the Hong Kong protests, Taiwan's independence, and COVID-19. Other content promoted China's position in its geopolitical rivalry with the United States, especially in the South China Sea. The operation's use of covert assets to promote favored politicians - notably members of the Duterte family in the Philippines, and President Joko Widodo ("Jokowi") in Indonesia - appears more novel. Its use of fake American accounts was also novel, but these assets were generally too rudimentary to establish a persona.

The operation began in late 2016 by posting about Taiwan; some of its posts attacked President Tsai Ing-Wen. In early 2018, it started posting about the Philippines with content that supported President Rodrigo Duterte and argued in favor of Chinese regional influence. Around the same time, it also created a collection of pages that focused more broadly on the South China Sea and

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[1] Twitter has also taken down a range of fake accounts that it attributed to Chinese actors, and Google and YouTube have taken down assets related to the Spamouflage operation that Graphika first exposed in September 2019. Twitter described the takedowns as "state-linked"; Google said that the activity was "linked to China."

defended China's policies there. For a few months in late 2018, one page began posting in support of President Joko Widodo in Indonesia, shortly before Indonesia's presidential election.

In 2019-2020, the operation began running accounts that posed as Americans and posted a small amount of content about the U.S. presidential election. Different assets supported President Donald Trump and his rival Joe Biden; one short-lived group supported former presidential candidate Pete Buttigieg. The operation did not single out either candidate for preferential treatment. Many of the accounts in this phase of the operation were barely active.

Throughout all of these phases, the operation kept returning to the theme of maritime security, especially the achievements of the Chinese Navy.

The operation used a number of techniques to disguise its fake accounts. Some stole their profile pictures from authentic individuals. Others used AI-generated profile pictures, a technique that is becoming [increasingly](#) [prevalent](#) in information operations [around the world](#). The operation typically set up its accounts in small batches spread out over a few days and linked by stylistic features, such as the choice of profile picture or the location that they claimed. None of the accounts made large numbers of friends on Facebook.

The operation's success in audience building was mixed. Two pages that focused on the Philippines attracted around 57,000 and 40,000 followers, respectively. A page that mainly posted about security in the South China Sea attracted 16,000. None of the other pages had more than 10,000 followers, and one, focused on criticizing Donald Trump, had none at all. Similarly, a group focused on the Philippines had over 51,000 members, but none of the operation's other groups had more than 2,000, and the one dedicated to Buttigieg had only two - both run by the operation.

Naval Gazing showed little cross-platform activity. In addition to the assets on its own platform, Facebook found six Instagram accounts, four of which never posted. Graphika found one related high-confidence asset on Twitter and a handful of accounts on Chinese platforms. The operation did post its content in front of various different audiences, but it does not appear to have broken out of social media to be picked up by the mainstream media or other influencers.

Naval Gazing: The Takedown Set

The takedown announced on September 22 consisted of 155 Facebook accounts, 11 pages, 9 groups, and 6 Instagram accounts. The earliest was created in 2016, the latest in August 2020, with the bulk of accounts created in 2019-2020. Before it took down the assets, Facebook shared a list of them with Graphika for independent analysis.

As it announced the takedown, Facebook said, "This activity originated in China and focused primarily on the Philippines and South-East Asia more broadly, and also on the United States. We identified several clusters of connected activity that relied on fake accounts to pose as locals in

countries they targeted, post in Groups, amplify their own content, manage Pages, like and comment on other people's posts particularly about naval activity in the South China Sea, including US Navy ships . . . We found this network as part of our internal investigation into suspected coordinated inauthentic behavior in the region. Although the people behind this activity attempted to conceal their identities and coordination, our investigation found links to individuals in the Fujian province of China."

Four Phases of Activity

The accounts, pages, and groups that Facebook shared with Graphika before the takedown constituted four distinct phases organized around geographical areas.

The earliest was a cluster of assets focused on Taiwan and cross-strait relations, from a strongly pro-mainland position. This began in September 2016 with the Chinese-language page 臺海那些事兒 ("Things about Taiwan Strait"), and added a second page in February 2017, "Pacific Focus." The latter, despite its name, was also mainly in Chinese: its original name was 歡喜樓 ("Huanxi Building"), and it then called itself "China Focus" and "China Defence Focus" (note the C) before settling on its final title in June 2019. A third Chinese-language page and associated group, The Pacific Echo, was added in 2018.


Page transparency for "Pacific Focus," showing the shift in language and theme.

In February 2017, the operation began running four Chinese-language accounts. They did not make a particular effort to appear as convincing human personas: their profile pictures were either cartoons or widely shared photos from online sharing sites, and those that made visible posts only shared content from Pacific Focus. They also bore other signs of inauthenticity, discussed below. This was a relatively unsophisticated effort at amplification. Two of these accounts fell silent before July 2017; the third last posted in May 2018.

Profile pictures from the cluster of accounts the operation ran in early 2017. Left to right, they uploaded their first profile pictures on February 9, February 9, February 21, and February 22, 2017.

Two more phases of the operation began in 2018. One focused on the broad military situation in the South China Sea, a heavily contested area over which China has claimed wide-ranging rights, challenged by the other countries in the region. This phase of the operation was carried out by the page Modern Chinese Warship (originally called Bule Ocean Free To Everyone; the word "Bule" seems to have been a repetitive typo, as it featured in two more of the page's names) and the page and associated group South China Sea Outpost. In January 2019, the operation added another page, China Defense Focus, this time written with an S. The operation does not appear to have created accounts to amplify these assets.
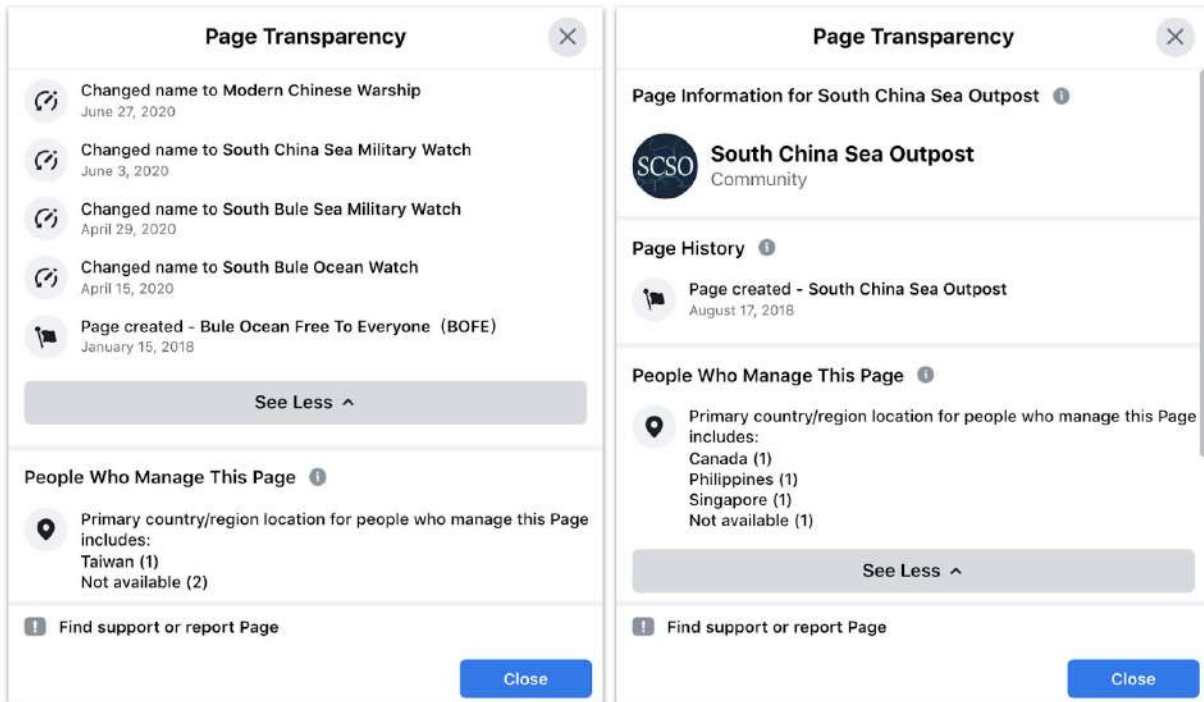
Page transparency for Modern Chinese Warship, formerly Bule Ocean Free To Everyone, and South China Sea Outpost.

Between March 2018 and March 2019, the operation created six main assets that focused on the Phillipines and supported President Rodrigo Duterte and his family and allies. These were the page and group Duterte Style (page created in March 2018, group in July 2018); the page and group Solid Sarah Z Duterte 2022, referring to Duterte's daughter Sara (group created in August 2018, page created January 1, 2019); and the group Imee Marcos Global Supporter, referring to the daughter of former president Ferdinand Marcos (created in March 2019). A Twitter account called Solid Sarah Z Duterte 2022, created in March 2020, also appears to be the operation's work.

Banner for the group Imee Marcos Global Supporter, created by the operation on March 21, 2019.

On May 5, 2019, the operation created a Facebook page called "Filipinos Against 'Big China.'" This only posted eight times, including its profile and cover image, and only had one follower. Its cover picture showed a map of the Philippines, with the name "South China Sea" crossed out and replaced with the name "West Philippines Sea."


Cover photo for the page Filipinos Against "Big China."

This Philippines-focused phase of the operation was amplified by two sets of fake accounts. The first comprised five accounts created between March and July 2018; the second, larger set consisted of almost 50 accounts created in batches between late April and late July 2019. These batch creations are discussed below.

The final phase of the operation focused on U.S. domestic politics. It began in April 2019 with the creation of a group called Go for Pete Buttigieg 2020 (later changed to For Pete Buttigieg). The group was set up on April 27, 2019, two weeks after Buttigieg announced his candidacy. It changed its name on July 4, 2020, four months after Buttigieg dropped out of the race. As of September 9, 2020, it only had two members, both assets run by the operation.

Banner and history of the For Pete Buttigieg group.

Between May and August 2020, the operation added three more U.S.-focused assets: a group called Trump KAG 2020 that claimed to support U.S. President Donald Trump's re-election, a group called Biden Harris 2020 that claimed to support his challengers, and a page called Quack Quack 7/24 that posted 15 times in all, largely in criticism of Trump. Only the Biden-Harris group attracted any kind of following: it had around 1,400 members by the time it was taken down. The Trump KAG 2020 group had just three.
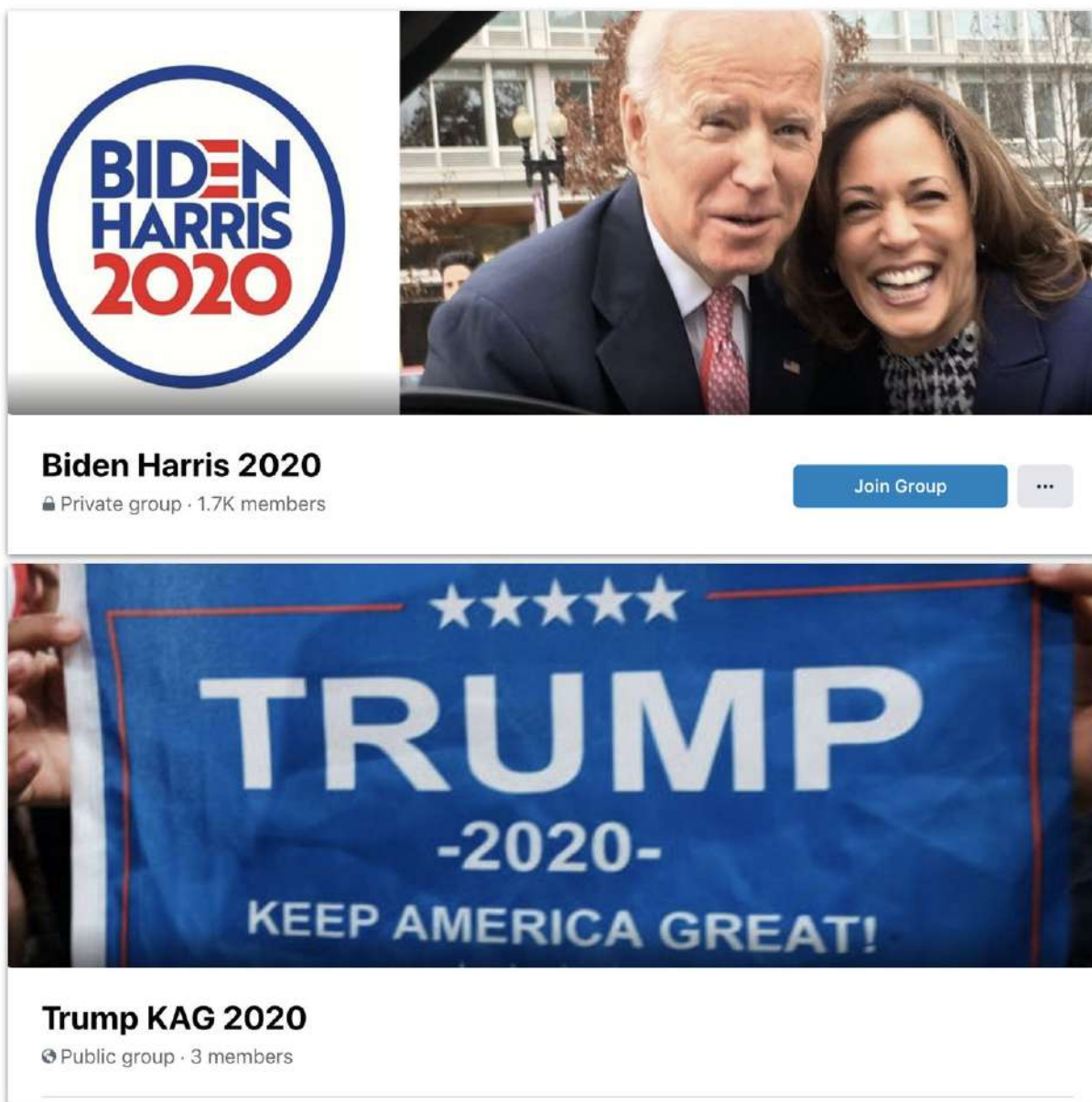
Banners for the operation's groups "Biden Harris 2020" and "Trump KAG 2020."

As with the Philippines set, this phase of the operation appears to have been supported by a batch of fake accounts that were created in May through July 2020. At the time of the takedown, the set also included 20 accounts that did not have any posting history or profile information, making dating impossible; these primarily liked U.S.-centric content, marking them as probable parts of the U.S. phase.

Sons of Batches

As the operation progressed, it drew on an increasing number of fake accounts. Many of these were set up in small batches and featured accounts that showed similar design concepts and similar behavior patterns. (Facebook does not show the creation dates for individual accounts, but it does show the date and exact time at which the first profile picture was uploaded. This can be used as a proxy to establish when the account became active.)
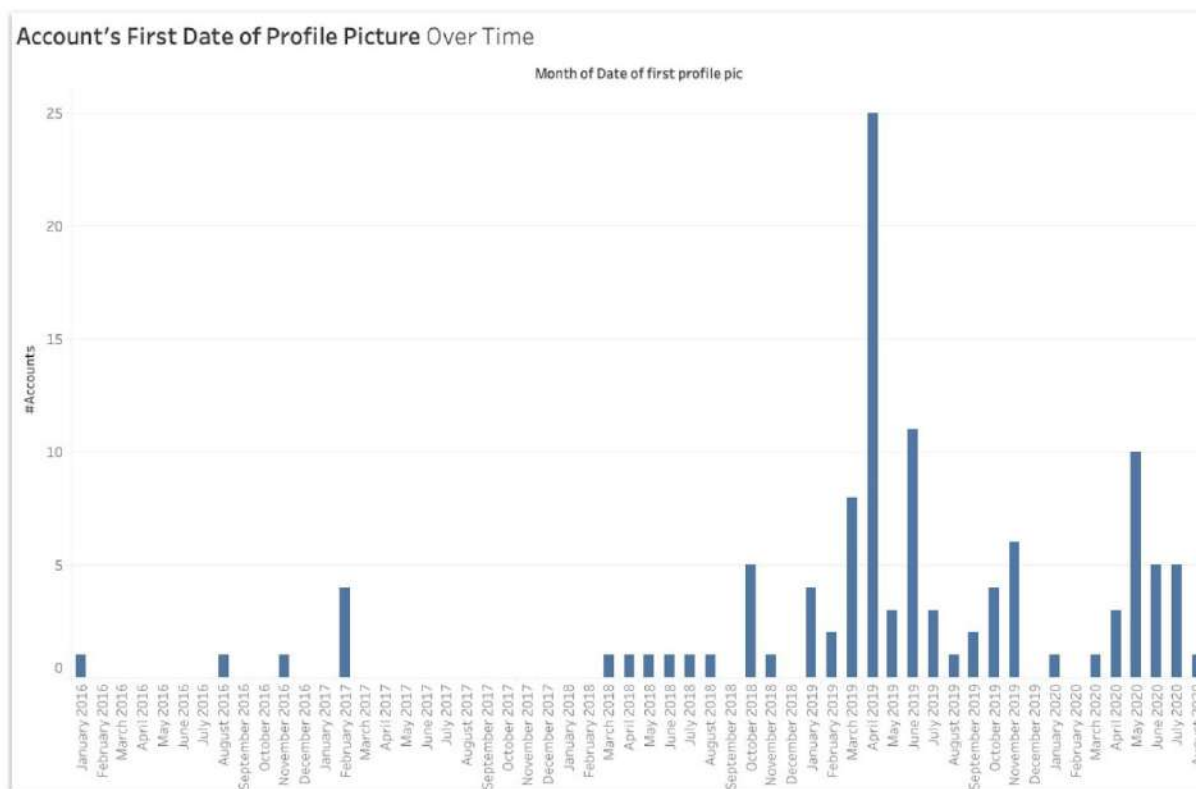
Account creation by month, operation Naval Gazing.

On October 20, 2019, for example, three accounts were set up. One was called Bene Hasika, one was called Iassic Marina, and one was called Bielizna Gadzety, a Polish phrase that means "underwear gadgets." Two of the accounts uploaded their profile pictures in the same minute, at 9.47 pm ET; the Iassic Marina profile picture (featuring Cristiano Ronaldo) was uploaded six minutes later.

Gun, girl, and goal: the only profile pictures for Bielizna Gadzety, Bene Hasika, and Iassic Marina, all uploaded on October 20, 2019, shortly before 10 pm ET.

Some of these batches had distinctive stylistic features. In April 2019, the network began operating two dozen accounts. Some had a particular focus on the Philippines; this batch is discussed below, in the section on the Philippines. Others only posted profile pictures of luxury cars, especially Audis and BMWs. Each of these accounts claimed to come from Quezon City in the Philippines but to live in South Los Angeles, California. (It is interesting to note that far more of the pseudo-American accounts claimed a West Coast location than an East Coast location; this may reflect the operation's overall interest in the Asia-Pacific region.)
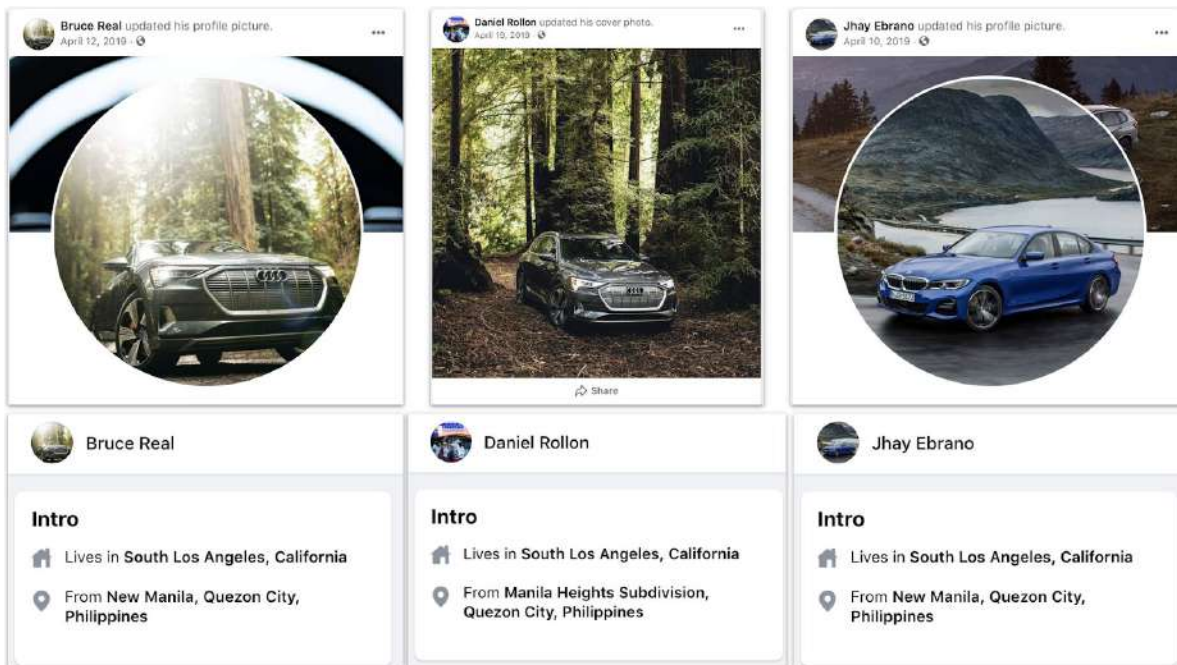
Cars and California: profiles and bios for Bruce Real, Daniel Rollon, and Jhay Ebrano: all were created in April 2019, featured cars as their profiles, and claimed to come from Quezon City, Philippines, but gave locations in South Los Angeles. The images for Bruce Real and Daniel Rollon were taken from the same Audi [photo](#) [shoot](#) a few days earlier.

Another small batch was created in late May and early June 2020. These accounts typically featured recycled photos as their profile pictures and also claimed locations in the United States, though in a more diverse range of locations. One stylistic peculiarity was that each one posted a check-in on the day it was created; this is the only batch of accounts in this operation that behaved in such a way. One of the accounts checked in twice the same day, in Toledo, the Philippines, and Los Angeles, California.
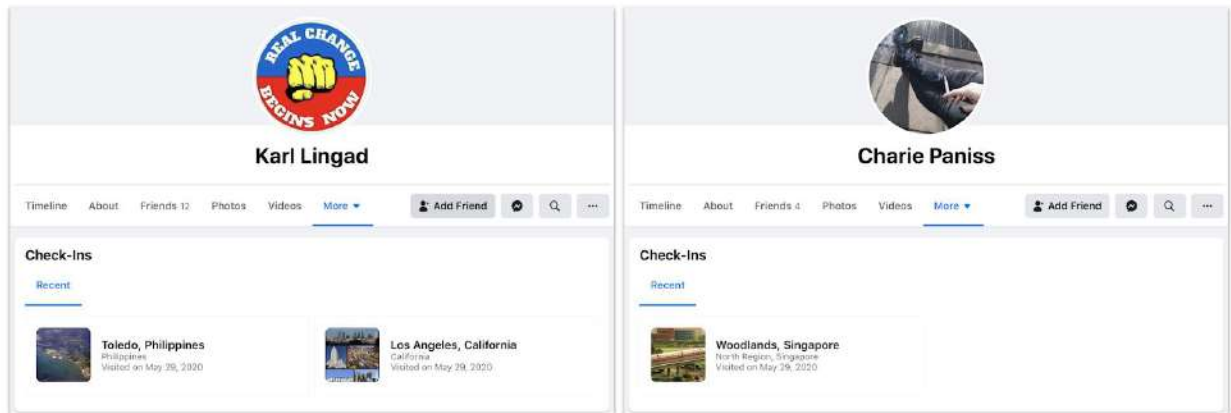
Check-ins for Karl Lingad and Charlie Paniss. Both accounts uploaded their first profile pictures on May 29, 2020. Charlie made one check-in that day, in Singapore. Karl claimed two the same day, in Toledo, Philippines, and Los Angeles, California.

All Is (not) Vanity

The network used a number of different techniques to mask its fake accounts. One approach appears to have been to acquire accounts that were created in one name and then rename and repurpose them. This can be demonstrated by comparing the name encoded into the URL of some of the Facebook accounts - known as the "vanity" - with the name given on the profile itself. Thus the account 邹晓静 ("Zou Xiaojing") had a vanity that included the name Johnson Martinez, and the account Nasa Peuophko, which posted largely about events in the Philippines, included a vanity in the name of Ira Grigorenko. The latter account featured a photo of a woman as its very first profile picture - most likely the original account owner. This suggests that the operation purchased or otherwise acquired some of its accounts from authentic users rather than creating them all itself.

Profile and URL for 邹晓静 ("Zou Xiaojing"), whose original name appears to be Johnson Martinez.

Profile and URL for Nasa Peuophko, whose original name appears to be Ira Grigorenko..

Pilfered Profiles

Other accounts used profile pictures that were taken from a range of online sources, including Instagram shots, posts on Chinese social media platforms, and widely available footage of photo shoots. Two accounts that the operation provided with profile pictures in July 2020, named Ann Perdue and Wendy Bowen, used the same photo.
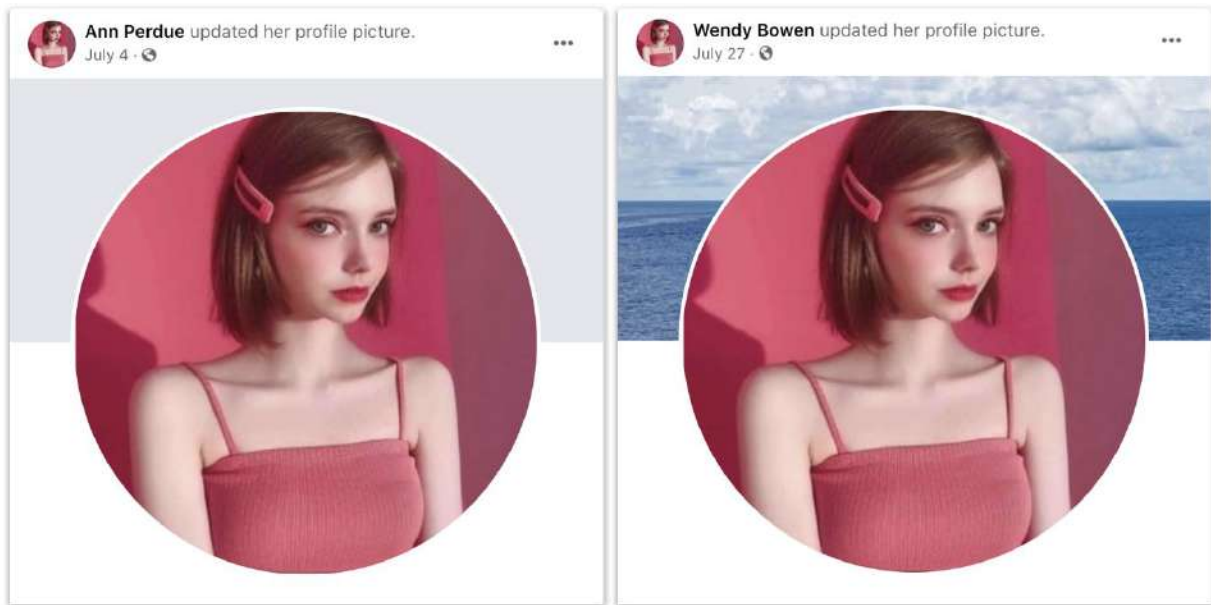
Profile pictures for Ann Perdue and Wendy Bowen.

An account called Lisa Bela, meanwhile, took its profile picture from an article on the Chinese site 17qq.com. An account called Anthony Waront used the profile picture of Slovenian ice hockey player Luka Zagar, and an account called NaNa Lippine used a picture of a young woman that was widely circulated online. All these borrowed pictures gave the accounts a superficial aura of credibility but were vulnerable to reverse searching, which revealed them as inauthentic.
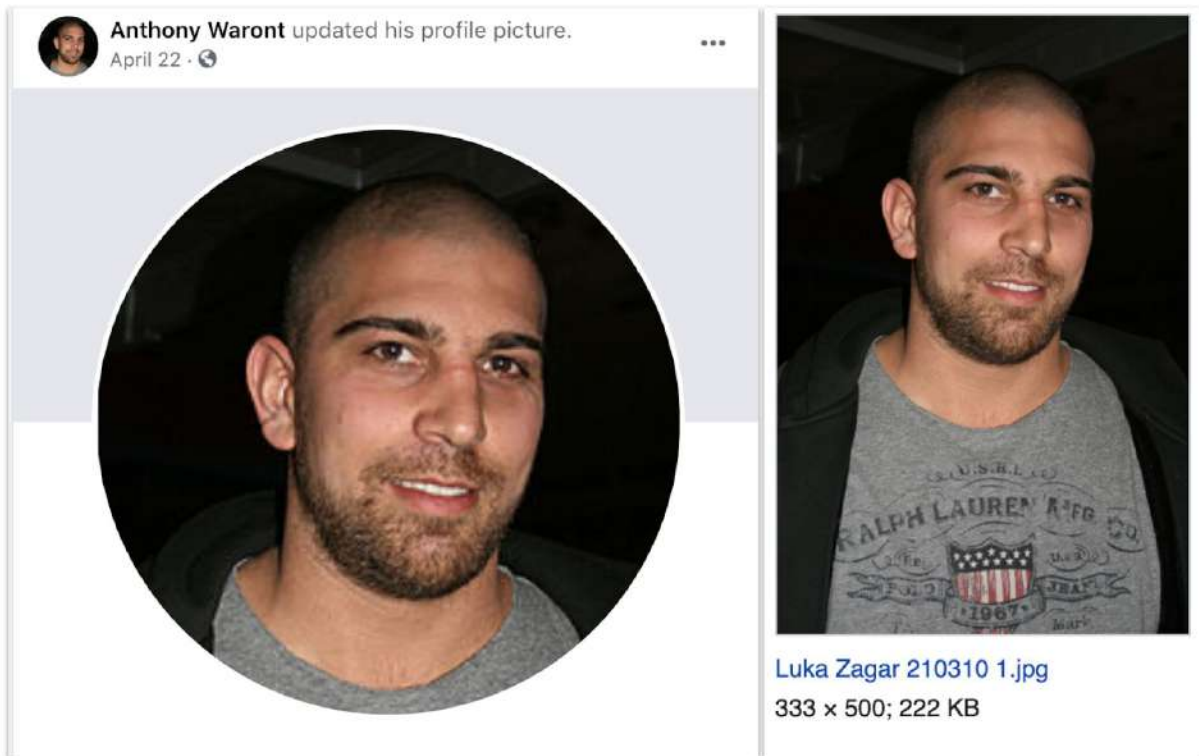
Left, Anthony Waront. Right, Slovenian ice hockey player [Luka Zagar](#).

Here We Go a-GAN

One way that the operation tried to get around that risk was by using profile pictures that appeared to have been generated by the form of artificial intelligence known as Generative Adversarial Networks (GAN). This form of AI is readily available online, and its use (or abuse) by covert operations has exploded in the last year.

Left, nine profile pictures from the operation, some of which were cropped or had stickers added. Right, all nine images rendered opaque and superimposed to show the alignment of the eyes, an indicator of synthetic image generation.

GAN-generated images are a reliable way of sidestepping the need to clothe a fake account in a stolen profile picture; as such, they defeat the traditional investigative technique of reverse-searching the image. However, current iterations of GAN-generated images are by no means foolproof. The technology struggles with peripheral features, especially ears, glasses, and hair, and it struggles still more with photo backgrounds - since there is far more variation in the range of possible backgrounds a person can have than there is variation in the layout of the human face. At present, such indicators as these can usually reveal GAN-generated profiles to the naked eye. According to Graphika's count, the Chinese operation used a dozen such pictures among its accounts. Some appeared to have been cropped or to have partisan stickers superimposed on them, perhaps as a way to mask their more obvious deficiencies.

Probable GAN image from the account Polo Kalia Sota. Note the distorted background, and the asymmetry of the glasses and ears.

GAN images are a paradox among influence operations: they obscure one set of possible investigative leads but they provide a separate indication that the account in question is fake. It remains to be seen whether even more threat actors will turn to GAN generation as a source of profile pictures.

The Themes: Naval Gazing

As we have described, the operation focused on a number of geographical and geopolitical themes, from Taiwan and Hong Kong to Chinese relations with the United States. These themes are set out in detail below. However, cutting across all these topics and regions was an abiding interest in naval issues - both the performance of the Chinese and other navies, and issues of maritime security, above all in the South China Sea.

Posts by three different pages on a Chinese missile launch in the South China Sea, August 27, 2020.

This preoccupation began very early, with content about Chinese naval operations around Taiwan, and it continued well into 2020: some of the fake accounts that were apparently created to target the United States used photos from the U.S. Navy as their profiles and cover images. One group with four members was named for the People's Liberation Army Navy, and the operation's Philippines-focused assets also posted content that extolled Chinese naval capabilities.

Post by the Philippines-focused page Duterte Style, sharing what it described as a "propaganda video" about Chinese aircraft carrier the Liaoning.
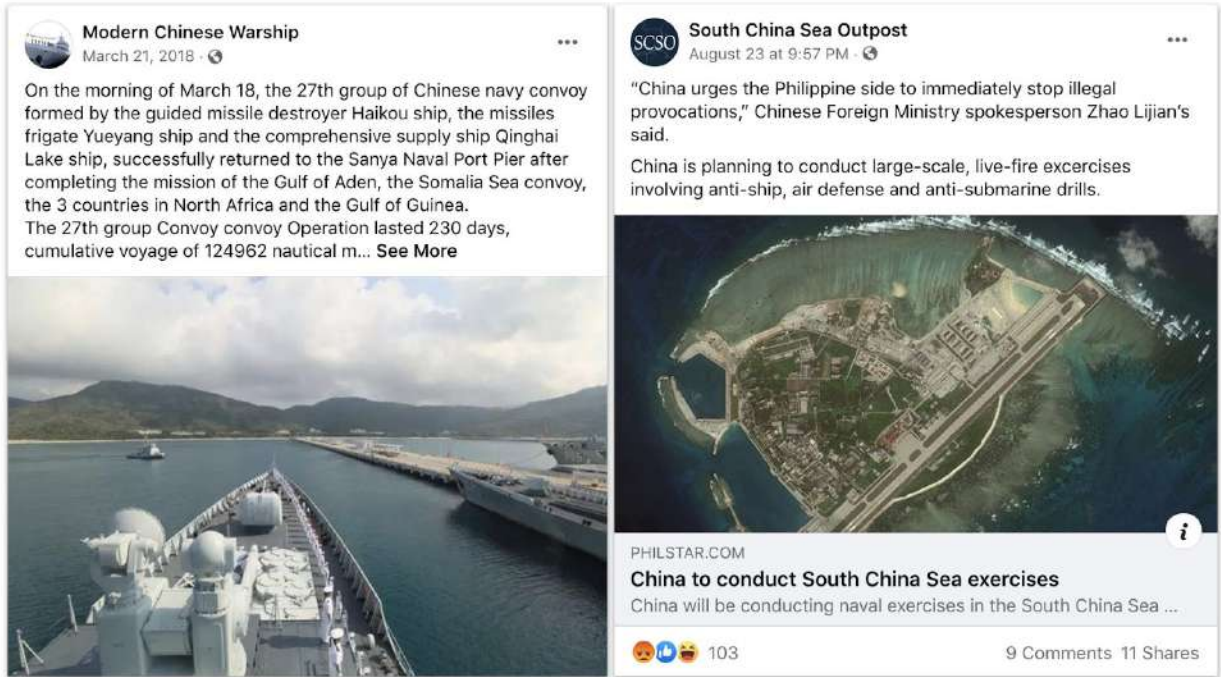
Left, post by Modern Chinese Warship on a Chinese naval detachment returning home after an anti-piracy mission in the Gulf of Aden, March 2018. Right, post by South China Sea Outpost on a planned Chinese naval exercise in the South China Sea.

Not all the military content was focused on China, and not all of it was focused on the navy. In particular, the page China Defense Focus, created on January 17, 2019, posted about military hardware and exercises from many parts of the world. A striking number of the posts about non-Chinese hardware featured hardware malfunctions. However, overall, the naval theme predominated and appears to have been the operation's most consistent interest.
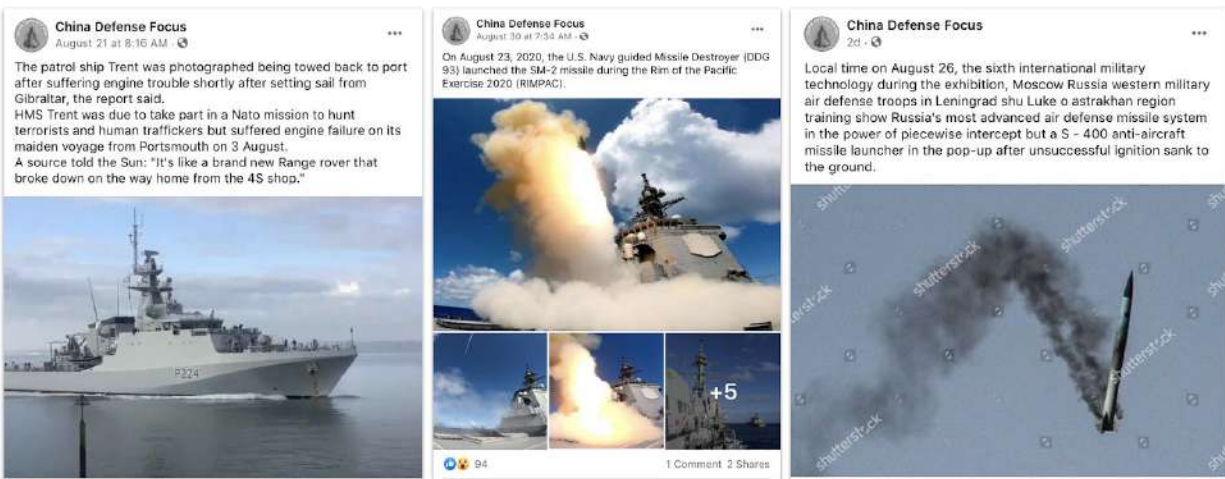
Posts about military exercises, and mishaps, from other countries' militaries, by China Defense Focus. The left-hand post concerns a malfunctioning British warship; the right-hand post concerns a misfired Russian missile.

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Taiwan Strait

Taiwan was the operation's first geopolitical focus. In late 2016, the page 臺海那些事兒 ("Things about the Taiwan Strait") began posting. It did not immediately focus on geopolitics: its very first post was a video of a street party, and other early posts included footage of pandas, but among this audience-building content were comments about the prowess of mainland China and the benefits that Taiwan would reap from reunification.

Some of the first posts by 臺海那些事兒, November 2016 - March 2017. The left-hand post celebrates the return to Earth of Chinese astronauts; the right-hand post concerns independence.

The creation of the page Pacific Focus on February 23, 2017, coincided with a burst of more aggressive content. Pandas were still included, but the page also posted hostile and sexist remarks about Taiwan's President Tsai Ing-Wen. On March 13, 2017, it posted an article about a reported accident with a missile on a Taiwanese warship, highlighting how the expensive weapon had been wrapped in duct tape.

At the same time, the operation's assets began taking on a mutually supportive role, with different pages and accounts promoting one another's content.

Shares of the same Pacific Focus post by the page 臺海那些事兒 and the account 张婷. The account was only four weeks old when it made this post. Note the early reference to Hong Kong, a theme that the operation was to return to in 2019 when the pro-democracy protests began.

Some of these early assets, especially the accounts, stopped posting in mid-2017. However, the interest in Taiwan and cross-strait relations, and the hostility to Tsai Ing-Wen and the pro-independence movement, lasted throughout the operation's life. Even when it extended its interest across the South China Sea and the Pacific Ocean, it continued to return to Taiwan as a theme.

Some of the latest posts by Pacific Focus on Taiwan, July 2019 and January 2020. Note also the focus on naval operations in the left-hand post, which referenced the [deployment](#) of China's aircraft carrier battle group into the South China Sea.

South China Sea

In early 2018, the operation expanded its remit to cover issues of security, sovereignty, and island-building in the broader South China Sea. This included the creation of two main pages, The Pacific Echo and Modern Chinese Warship (originally Bule Ocean Free To Everyone). The former posted in a mixture of English and Chinese, the latter primarily in English, but their relationship was clear: one of their very earliest posts, on March 4, 2018, used the same photo and covered the same story, based on a statistical report from the Chinese [State Oceanic Administration](#) on the wealth generated by China's maritime economy.
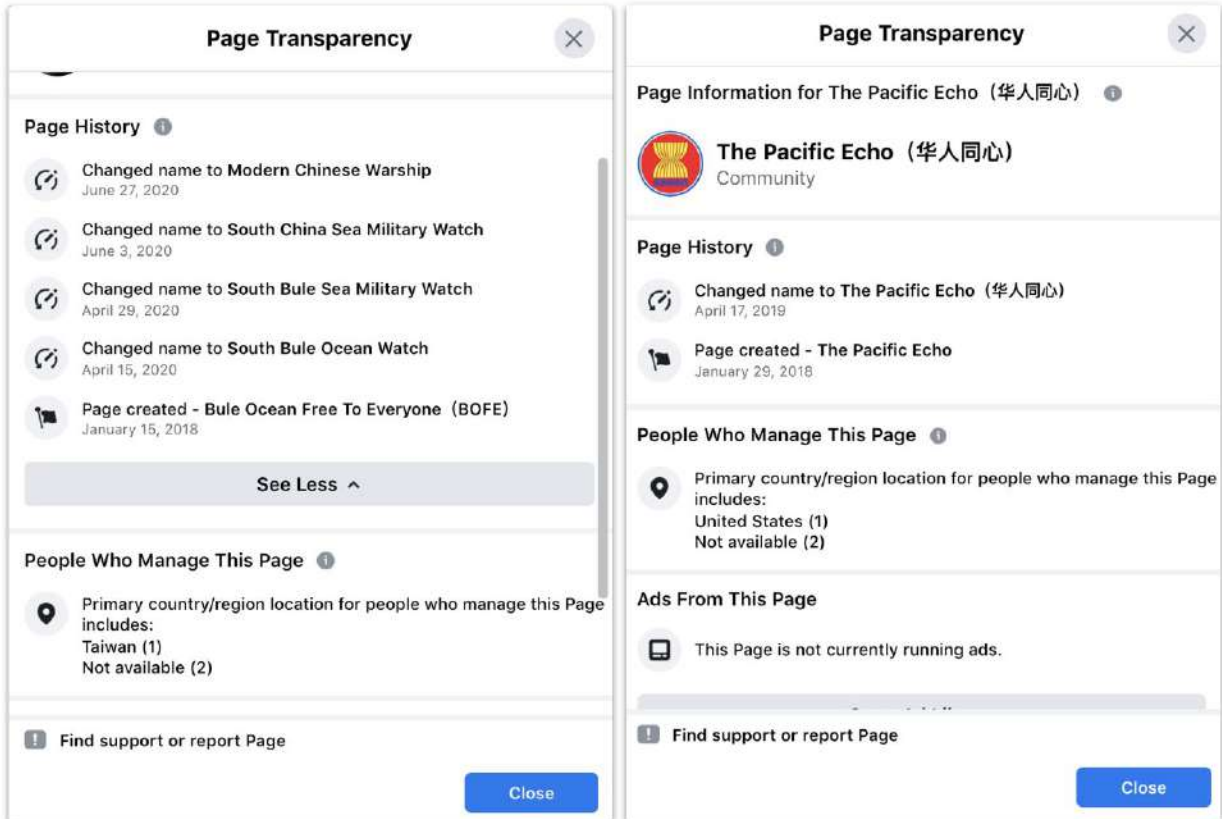
Pages created in January 2018.

Early posts from Modern Chinese Warship and The Pacific Echo on the report by the Chinese State Oceanic Administration.

As with the Taiwan-focused cluster, this part of the network also paid close attention to military issues, especially the Chinese Navy. Early posts from Modern Chinese Warship - still, at that time, called Bule Ocean Free To Everyone - covered Chinese naval exercises, military ideology, and island-building activities.

War and peas: posts on the Navy, military power, and planting on newly built islands, March 19-20, 2018.

Indonesia

In August 2018, one of the pages in this cluster, The Pacific Echo, underwent an unexpected development: it began posting positive content about Indonesia President Joko Widodo, known as Jokowi, and negative content about his main political rival, Prabowo Subianto. The activity encompassed some 30 posts between early August and early December, some in Indonesian, some in English. This preceded the Indonesian presidential election in April 2019, but the Indonesian focus ended in December and did not run up as far as the election itself; it resembled a small-scale effort to promote Jokowi's candidacy using an existing operational asset. Alongside the political content, the operation posted about Indonesia's navy.

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Indonesia-focused posts by the operation, August 28, 2018.

From the beginning of 2019, however, this part of the operation returned to its primary focus. Many posts dealt explicitly with the doings of the Chinese Navy; some even concerned personnel.

Naval content, January 2019-January 2020.

Some themes, such as China's island-building in the South China Sea, were perennial issues, the subject both of expressive pride and of defensive explanations. In June 2018, for example, Modern Chinese Warship posted a cartoon of Garfield the cat (embodying America) and Po, hero of Disney's Kung Fu Panda movie (embodying China), to defend the island-building program. "You think too much. We deploy only necessary military defense facilities," the punchline ran.

Explainer on China's island-building in the South China Sea.

These essentially defensive posts were paralleled by posts that accused the West and the United States in particular of geopolitical trouble-making, aggression, and violation of other countries' sovereignty, rights, and well-being. Some of these posts were relatively generic - for example, accusing the U.S. of "warmongering" or of wanting to export democracy by military means. Others picked on specific issues, notably the U.S. rejection of China's territorial claims in the South China Sea and the racial justice protests following the murder of George Floyd, to portray the United States in a negative light.

Modern Chinese Warship on South China Sea and human rights; note the reference to the George Floyd protests.

Hong Kong

Initially, the South China Sea cluster was less focused on Hong Kong. However, that changed in mid-2019 with the outbreak of major protests against China's new extradition law. As the protests spread and garnered global attention, the Chinese operation began posting about them, criticizing the protesters and portraying them as violent criminals. This did not replace the Taiwan-focused content completely: accounts switched from one theme to the other and back as the situation evolved.

Content comparing the Hong Kong protesters with criminals, June 7-9, 2020..

The Philippines

The Philippines cluster began in March 2018 and grew through 2019 and into 2020. It was, by a considerable margin, the operation's most engaged-with cluster of assets. The majority of its content, both from pages and from individual accounts, praised President Rodrigo Duterte and his family and allies, notably his daughter and the daughter of former president Ferdinand Marcos, Imee Marcos, a senator.
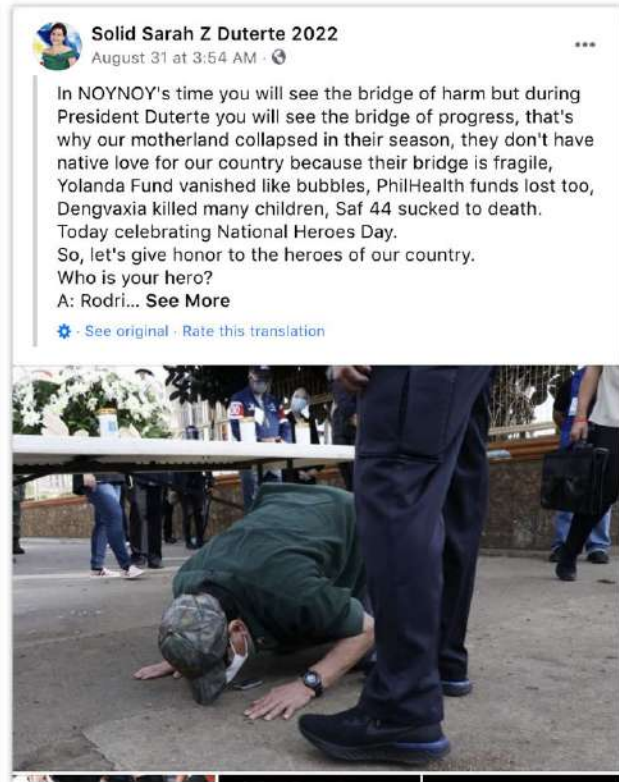
Posts praising Duterte by Duterte Style and"Solid Sarah Z Duterte 2022.

The focus on Imee Marcos was particularly striking. In March and April 2019, the operation created some 30 accounts in an extended batch, all of them focusing on the senator. Many of them used the same profile picture and banner - an image from a rally showing Imee Marcos and Sara Duterte side by side and giving the closed-fist gesture of Duterte's supporters. This was the largest and most obvious batch in the operation.

The same image, focusing on Imee Marcos, from four accounts in the network. All were created between April 1 and April 4, 2019.

The operation also created a group called Imee Marcos Global Supporter. At the time of the takedown, it had five administrators, four of them run by the operation. Initially the operation's assets posted the bulk of the content in the group, but in May 2019, one of the admins, "Maria Kiram," posted an announcement congratulating the group on reaching 1,200 members, and shortly thereafter the operation's assets stopped posting. From May 2019 until August 2020, other group members, unaffiliated with the operation, continued to post; over this period, the group grew more slowly, to 1,370 members. In August 2020, another operation asset, "Belinda Araula," resumed sharing content from Duterte Style. This return to direct action may have been an attempt to begin growing the group more quickly or to entice members to move to the Duterte Style page and group.

Complementing this pro-Duterte and pro-Marcos activity, the operation's assets attacked critics of the Philippines government and president. The targets of these attacks included opposition senators, the independent Rappler and ABS-CBN news outlets, and Rappler founder and chief executive Maria Ressa, who was celebrated as one of TIME Magazine's people of the year in 2018.

Attacks on journalist Maria Ressa (left) and opposition Senator Franklin Drilon (right).

The majority of content in this cluster focused on Duterte and his allies and critics, but a significant minority focused on China. These posts praised China, and dealt, for example, with the benefits of trade with China and the country's generosity in offering coronavirus vaccines to the Philippines. Some posts praised President Duterte for his stance on the South China Sea (also called the West Philippines Sea), after he said that China was "in possession" of the sea.

Posts on the South China Sea and the Philippines' relationship with China and the United States; note the contrast on the left between Chinese "economic progress worth billions" and American "war-magnet bases."

Unusually for the broader Chinese operation, this phase appears to have created a Twitter account. Perhaps in reaction to the relative success of the Solid Sarah Z Duterte 2022 group, this account was called @solid_2022, and its screen name matched the name of the Facebook assets. The account's profile also matched content from the Facebook side of the operation, and its tone was very similar in the broad outline, praising Duterte and his allies, attacking his critics, praising China and decrying the American presence in the Pacific.

Pro-China and anti-America tweets by the Twitter account @solid_2022.

Tweets by @solid_2022, accusing the U.S. of behaving like "conquering colonials" and treating the Philippines like a "vassal state," in contrast to China.

The @solid_2022 Twitter account was created at 03:47 UTC on March 12, 2020. It did not have the success that the page and group enjoyed on Facebook; at the time of writing, the account had 762 followers. These were overwhelmingly newly created accounts, over 500 of the followers having been created since April 2020. The account's tweets, 121 in total, rarely used hashtags, and only nine hashtags appear to have been used since the account's creation. Three of these, in a change of behavior relative to the Facebook page activity, were U.S.-focused: #blacklivesmatter, #blacklivesmatters, and #justiceforgeorgefloyd. However, they were not used to post directly about the explosion of racial tension in the United States as much as to push back against foreign criticism of Duterte's regime.

Tweets by @solid_2022 on race in the United States.

On occasion, the Philippines cluster engaged directly with users. On November 21, 2018, for example, the Duterte Style Facebook page ran a poll asking users whether they supported Duterte's policy of cooperating with China to extract oil and gas. Of over 650 responses, 632 were positive.

*Engagement: post asking for comments on the Philippines-China relationship (left) and the responses (right).*

Defending China

More broadly, the operation defended China when it was criticized by Western powers. For example, a range of assets posted positive content about China's response to the novel coronavirus and amplified the claim that the virus had not, after all, originated in China.
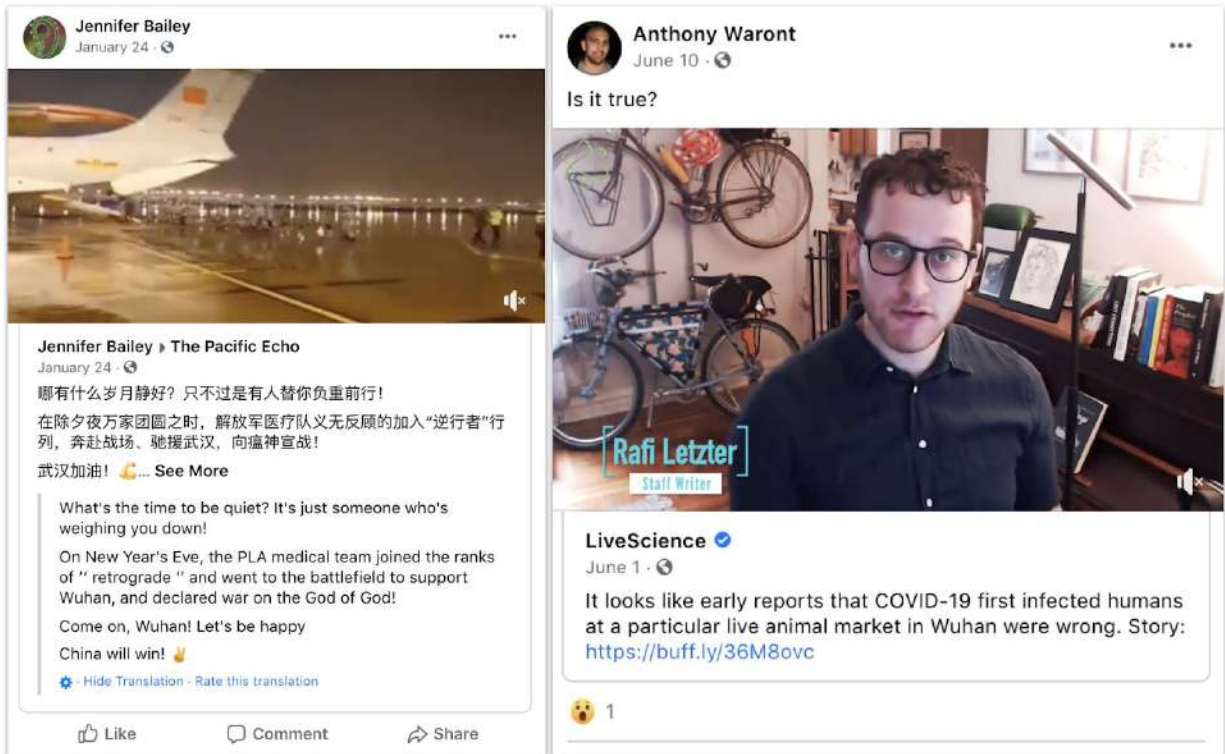
Posts on COVID-19 by operation accounts in January and June, 2020.

Other assets focused on the long-running clash between the U.S. and China over tech giant Huawei. This subject came up repeatedly, both after Canada detained Huawei's chief financial officer, and after the United States exerted increasing pressure on its allies to block Huawei from critical communications infrastructure. Even some of the operation's otherwise inactive accounts took part in this activity, liking various Huawei-associated Facebook pages.
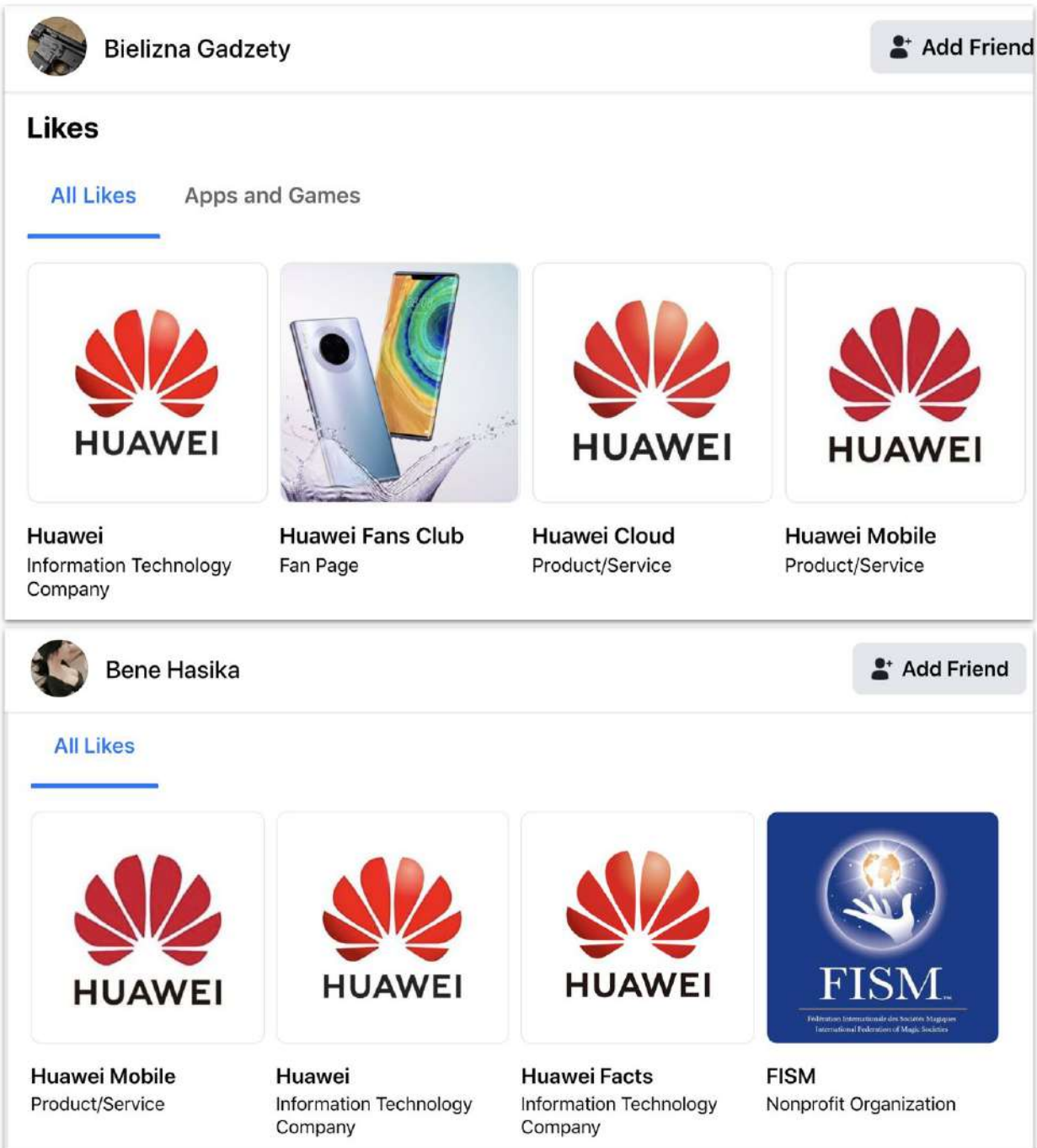
Likes of Huawei by two operation accounts, both created on October 20, 2019.

The U.S.

The operation's final phase targeted the United States. Initially, some of its content was positive: for example, the small batch of accounts that were created in 2017 all shared an article by Pacific Focus that featured President Trump claiming to have had a "very, very good meeting" with China's President Xi Jinping.

Shares by two operation accounts of a post by Pacific Focus, April 2017.

By April 2019, however, the operation had begun to create accounts and pages with apparently American names and personas. These did not post directly about China: they focused on American issues and appeared to be trying to pass for Americans themselves. For example, the account Kate Selina - one of the assets with a GAN-generated profile picture - posed as a conservative American and shared posts criticizing Medicare for All and gun control policies. The same account asked users whether they believed that "God chose Mr. Trump."

Posts by the operation in April 2019.

Unlike the Philippines-focused part of the operation, the American-focused part used fake accounts to pose as politically engaged users on both sides of the partisan divide. Another account, Brian E. Gerald, posed as a liberal, proclaiming former President Barack Obama as "my best president ever" and posting mocking memes about Trump.
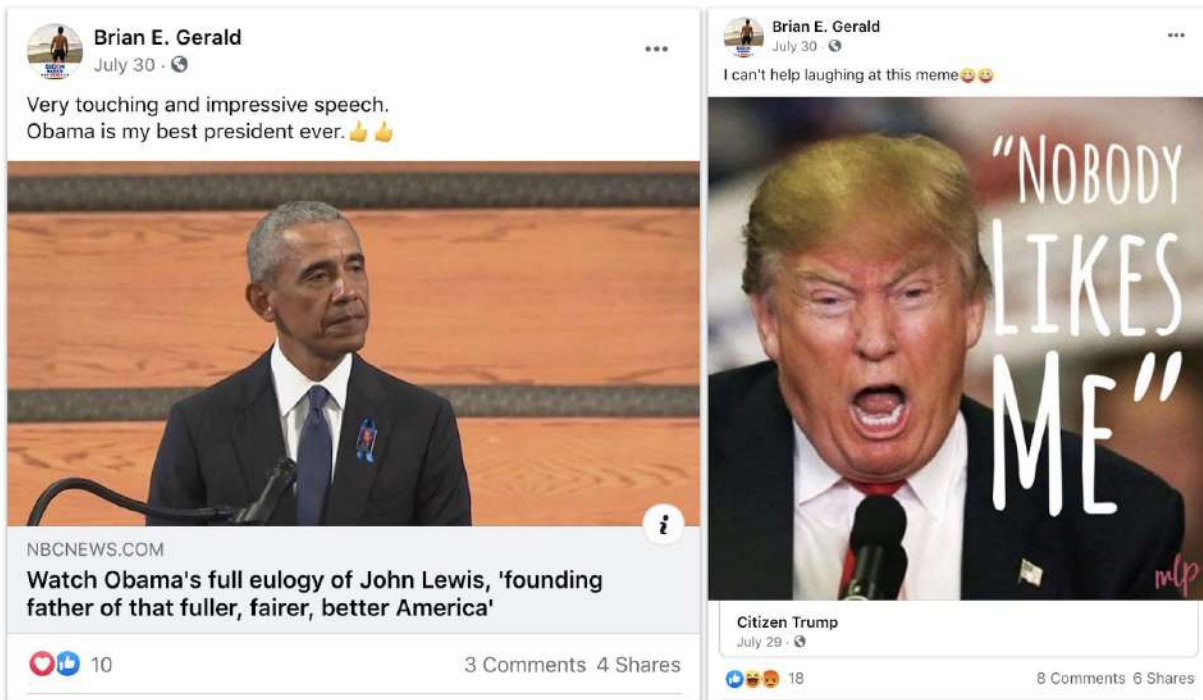
Posts by the operation in July 2020.

As in other phases of the operation, the accounts revolved around a small cluster of pages and groups. These, too, took both sides in the political debate: a page called Quack Quack 7/24 called for a "Trumpless world," and the group Trump KAG 2020 proclaimed, "We are all Trump-supporters."
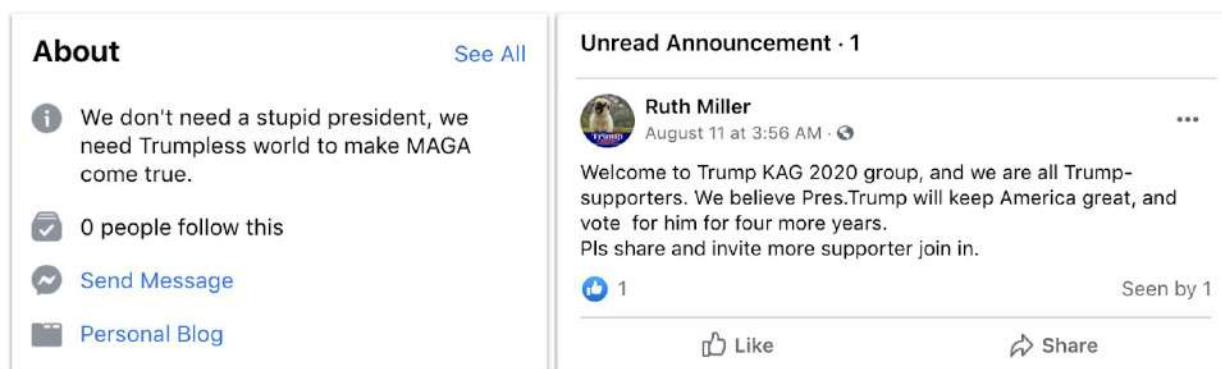
Left, "About" section for the page Quack Quack 7/24. Right, post by asset Ruth Miller to the Trump KAG 2020 group.

These assets did not build a viral following. The group Biden Harris 2022 was the most successful, but it only attracted some 1,500 members. The group Trump KAG 2020 managed three members, while the group For Pete Buttigieg managed just two, who were both admins tied to the operation. The page Quack Quack 7/24 primarily posted screenshots of anti-Trump tweets; it did not attract any likes or followers.

The operation's approach to these groups seems to have been to seed them with content copied from authentic users but then to attract authentic members and let them take over the conversation. However, the operation faced some problems in its management. For example, on August 12, authentic users began to post complaints about how the Brian persona was running the Biden-Harris group. After this, the persona asked other active members to take administration duties; one user announced that they would help their "new friend" and asked the rest to "give [Brian] a break, it's his first group." After this, the operation's assets began posting into the group much less frequently; authentic users took over the running and the choice of content.

The page South China Sea Outpost, although not focused on America, also attracted American users; these do not appear to have been affiliated with the operation. By September 2020, most of the admins and moderators in this group came from outside the operation. This presented its own set of issues, because these individuals regularly posted anti-Chinese messaging to the group.

Anti-Chinese content and comments from one "South China Sea Outpost" group admin.

Often, these admins would also reply to content posted by other admins in a critical fashion, including calling out articles with a pro-Chinese slant. Most recently, one of these admins posted a piece on a Chinese rocket test that ended with the rocket crashing near a school with the comment "Meanwhile, more buffoonery."

*Admin referring to the failed Chinese rocket launch
as "Buffoonery."*

Since this content was so clearly opposed to the operation's overall messaging in every other phase, the question arises as to what the operation was trying to achieve with its U.S. engagement. The way that it set up pages and accounts to support Trump, Biden, and Buttigieg did not suggest an attempt to support one candidate (for example by encouraging one side to vote while discouraging the other): the posts that Graphika reviewed seemed designed to encourage both sides. It is possible that the intention was to further polarize America's political landscape by affirming each side's view of the other, but in that case, it is strange that the operation paid no attention to more progressive groups and candidates, such as senators Bernie Sanders and Elizabeth Warren.

A further possibility is that the intention was to use election-related messaging to infiltrate online communities on both the right and the left, especially those communities that were interested in the U.S. Navy and maritime issues more generally. One data point in particular supports this hypothesis: the way that fake accounts run by the operation in 2020 either liked or borrowed content from the U.S. Navy.

These accounts had almost no posting history and made only the most rudimentary attempt to establish an identity, but naval imagery predominated among them. For example, the account Ginger Bachand featured as its cover picture a photo of a U.S. warship by night; the original was posted by the U.S. Defense Department.

Left, cover photo for Ginger Bachand. Right, U.S. Defense Department photo.

Similarly, the account Jan ChoMr featured as her cover photo an image of a F/A-18E assigned to the "Dambusters'' of Strike Fighter Squadron (VFA) 195 taking off from the deck of the USS Ronald Reagan in the South China Sea. This, again, was taken from a U.S. Navy press release that was published on August 14, 2020; interestingly, the South China Sea Outpost page shared that press release on the day it was published.

Top left, post by South China Sea Outpost, August 14, 2020. Top right, cover photo for the account Jan ChoMr. Bottom, U.S. Navy [press release](), the source of both the post and the cover.

Other accounts showed their interest by liking a range of U.S. military pages. Some of the accounts in question had no profile picture or cover image; others had only a cover, typically a view of American warships at sea. In general, these accounts only liked half a dozen pages or fewer each: this makes the high proportion of military pages more evident.
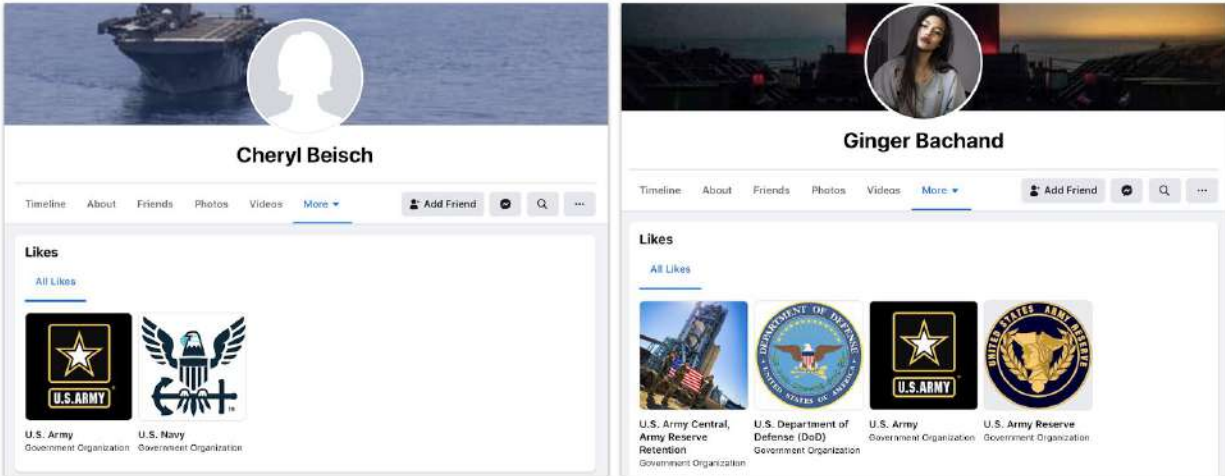
Likes by operation personas Cheryl Besich and Ginger Bachand. Cheryl's cover photo is of the [USS Bataan](#) in the Mediterranean.
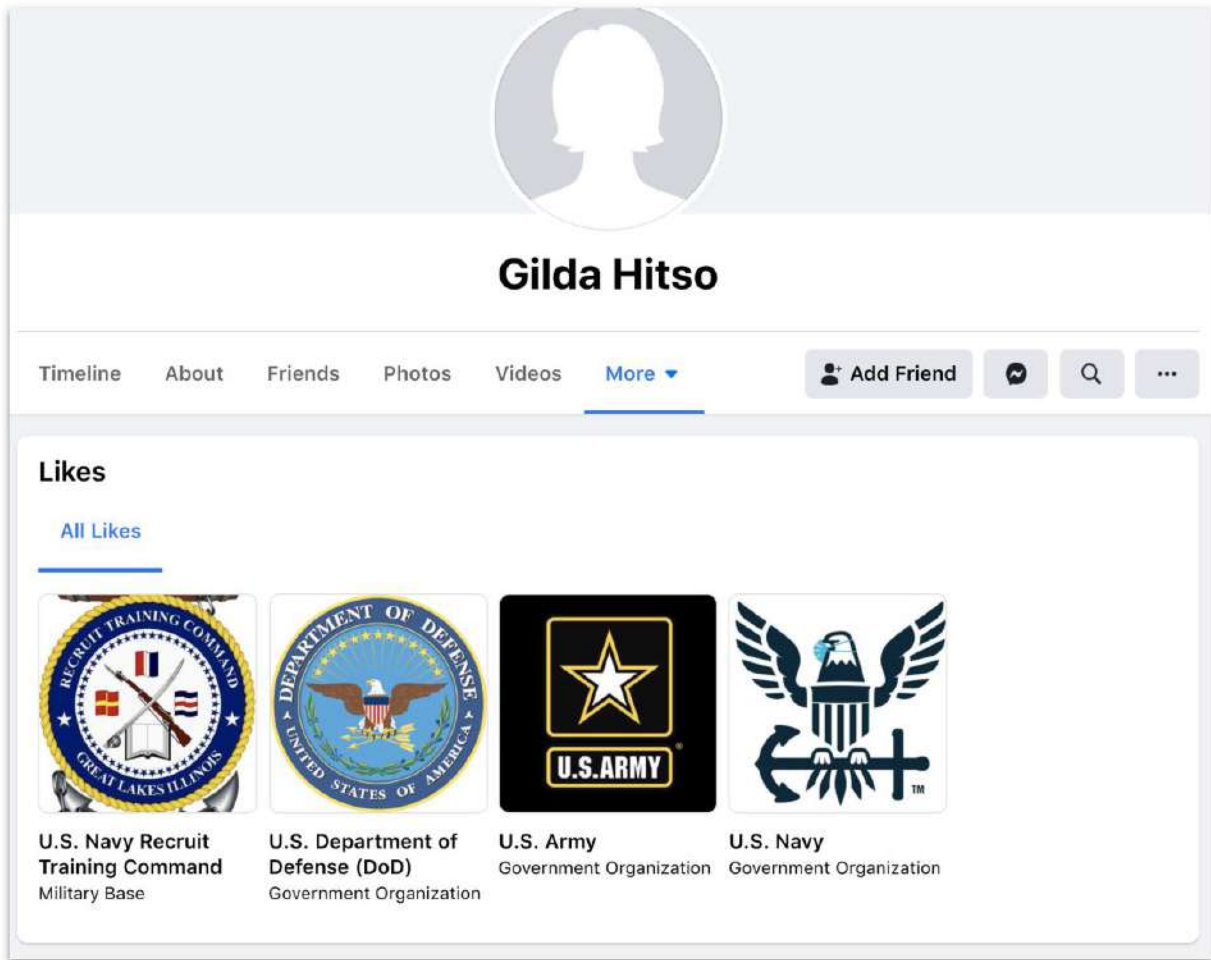
Likes by persona Gilda Hitso, an account with zero posts, but four military likes.

This evidence is insufficient to prove definitively what this phase of the operation was trying to achieve; it is entirely possible that it had more than one goal in mind. Whatever the intention, the attempt to build an audience did not proceed far before the takedown. In terms of timing and audience numbers, the U.S.-focused phase of the operation was both the last and the least.
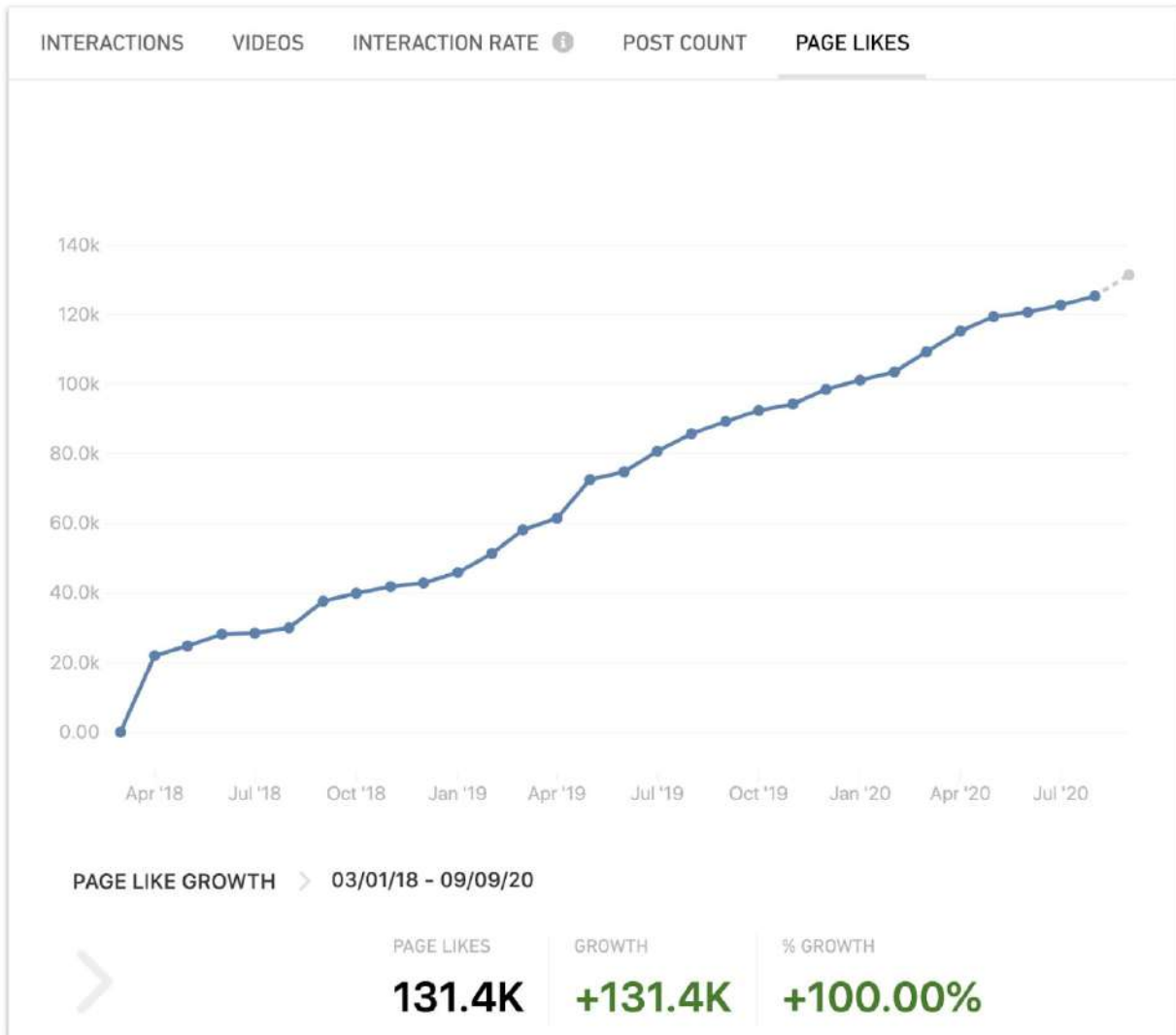
How the Operation Ran

Reach and Impact

The audience for these inauthentic assets varied considerably; as we have seen, the pro-Trump group only had three followers and the Imee Marcos group had over 50,000.
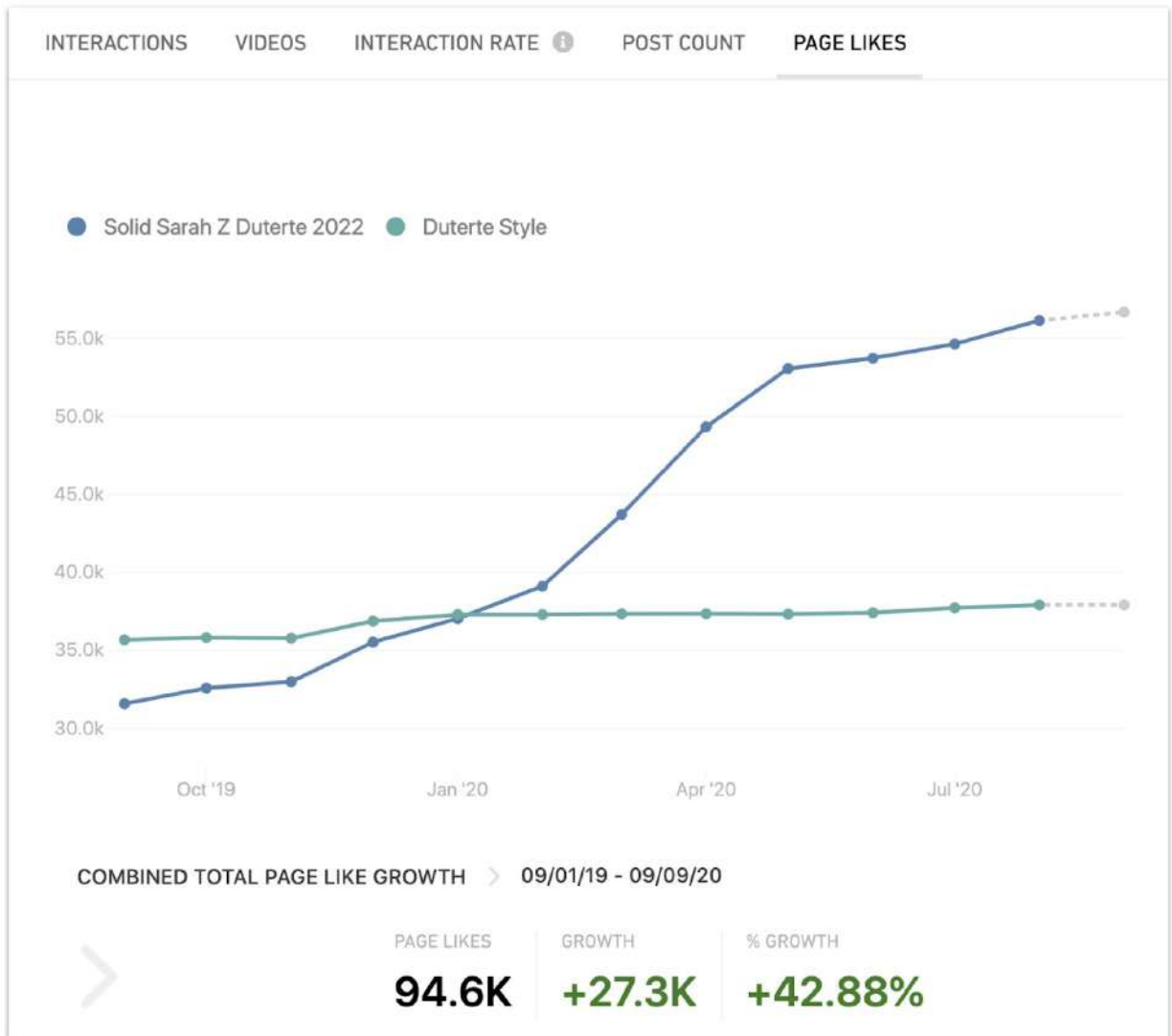
Pages

A CrowdTangle analysis showed that between March 2018 and September 2020, the pages associated with Operation Naval Gazing gathered over 131,000 likes. These were not equally distributed. The two most recent pages (Filipinos Against "Big China" and Quack Quack 7/24) only had one like combined, whereas pro-Duterte pages, such as Solid Sarah Z Duterte 2022 and Duterte Style, received tens of thousands of likes.

INTERACTIONS   VIDEOS   INTERACTION RATE ⓘ   POST COUNT   **PAGE LIKES**

PAGE LIKE GROWTH › 03/01/18 - 09/09/20

	PAGE LIKES	GROWTH	% GROWTH
›	131.4K	+131.4K	+100.00%

Takedown set's growth in likes between March 2018 and September 2020.

As visible above, the sets of pages did not display obvious signs of inorganic growth, such as sudden large increases that could not be explained by particular posts. The only two pages that saw their engagement substantially grow over the last 12 months - and for which Graphika had the full data available - were the Filipino-focused pages mentioned above, Solid Sarah Z Duterte 2022 (58,328 likes) and Duterte Style (37,917).

INTERACTIONS   VIDEOS   INTERACTION RATE ⓘ   POST COUNT   **PAGE LIKES**

● Solid Sarah Z Duterte 2022   ● Duterte Style

COMBINED TOTAL PAGE LIKE GROWTH 〉 09/01/19 - 09/09/20

	PAGE LIKES	GROWTH	% GROWTH
〉	**94.6K**	**+27.3K**	**+42.88%**

Growth in page likes for Solid Sarah Z Duterte 2020 and Duterte Style over the past 12 months.

The network's activity was relatively limited, with just over 4,300 posts in total since it was created. As is clear on the visualizations below, some of the pages that were active in 2017 slowly stopped posting, with more recent pages taking over. Despite the small number of posts the network produced over time, they generated over 1.6 million interactions between September 2016 and September 2020. Despite posting only 511 posts since it was created on January 1, 2019, Solid Sarah Z Duterte 2022 generated more than half the total - 935,609 of the 1.60 million interactions generated from the network.
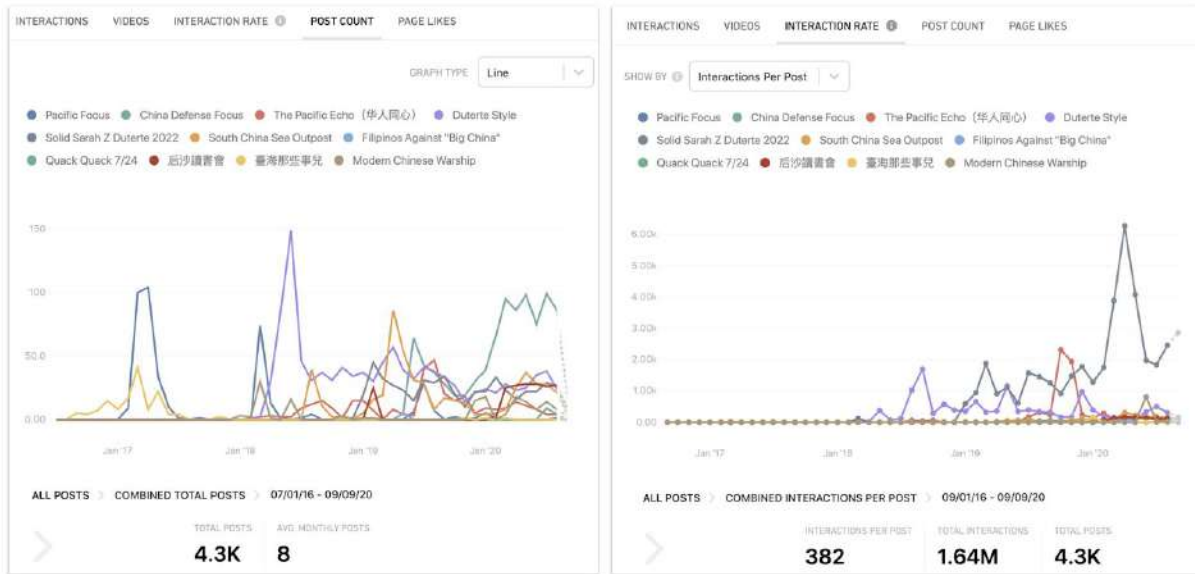
CrowdTangle statistics for the network's total number of posts, broken down by assets (left) and CrowdTangle statistics for the engagements on the network's posts, broken down by asset (right)
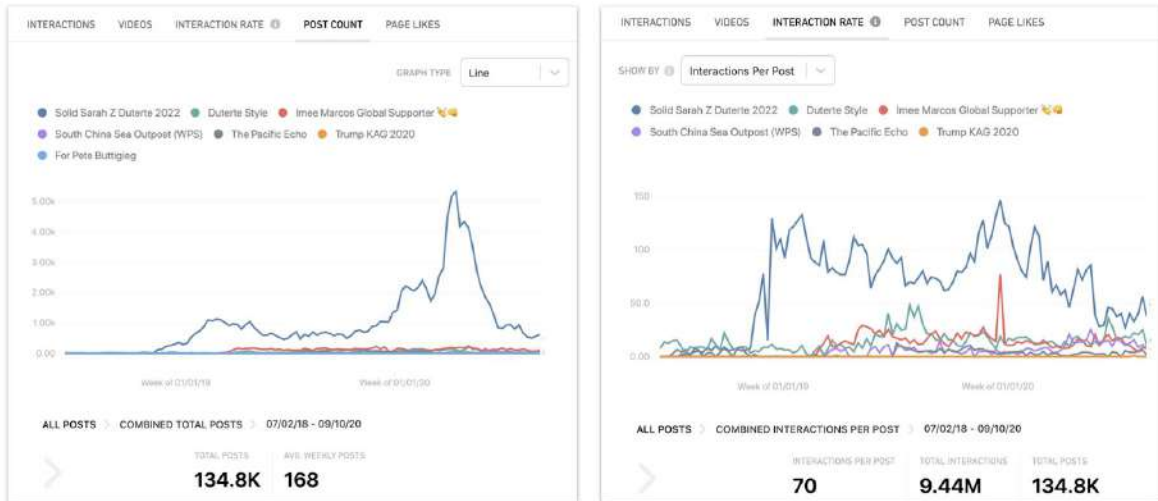
Groups

The nine groups tied to the network showed a similar growth pattern to the pages, with a continuous growth since the network emerged. Unlike the pages, there was a spike in users joining the groups between November 2018 and February 2019.
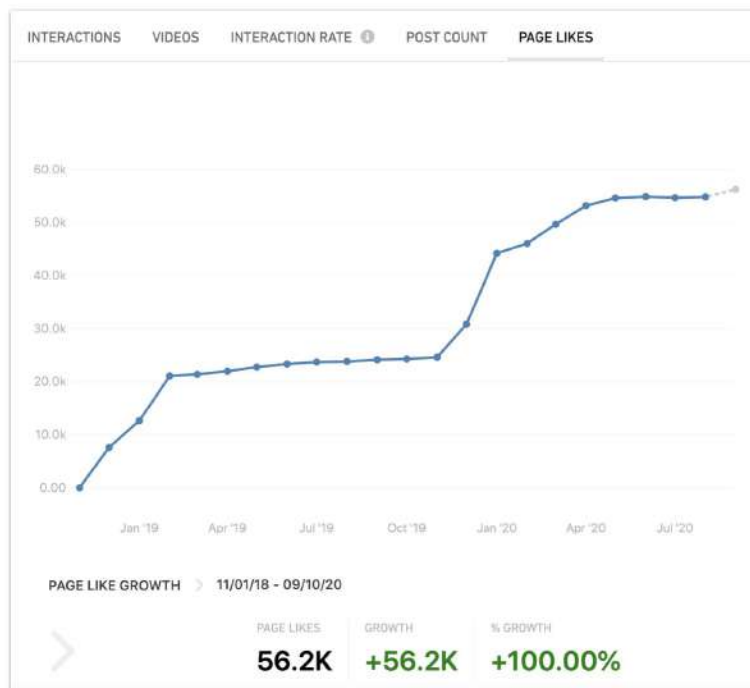
Groups set's growth between July 2018 (creation date of the first group) and September 2020.

Unlike the pages, the groups were substantially active, sharing over 134,800 posts over a span of 2 years. As visible above, the group Solid Sarah Z Duterte 2022, administered by the eponymous page despite the group being older than the page, was responsible for 115,201 of these posts that generated over 9.1 million interactions.

Groups' post count since July 2018, broken by group (left),
groups' interaction rate per post from July 2018 (right).

Content Sources

The operation's assets took their content from a wide range of sources. Most of the pages posting in Mandarin, apart from 后沙讀書會, duplicated at least a part of their content from Chinese state-sponsored or pro-CCP web outlets. After almost 3 years of inactivity, 后沙讀書會 duplicated articles from both CCTV and from Beijing Daily, the official party newspaper in Beijing. The pages Pacific Focus and The Pacific Echo（华人同心）duplicated articles from WeChat that were reposted on dozens of different pro CCP websites from mainland China and Hong Kong. Some of their content, particularly non-political content, appeared to be original.

Tracing back a post from 臺海那些事兒 celebrating Xi Jinping and his wife, to CCTV. Sentences beginning with the symbol Δ are legends from pictures in the [CCTV article](#).

The pages Modern Chinese Warship and Chinese Defense Focus posted some original content, often written in unidiomatic English. The accounts targeting Filipino audiences, Solid Sarah Z Duterte 2020 and Duterte Style, often took headlines from mainstream media outlets but added their own comments under the copied headline. In the case of Duterte Style, some posts were duplicated from the Manila Bulletin. The page 后沙讀書會 (Housha Book Club) only posted original content and maintained profiles on Chinese social media platforms. Articles written by Housha were also disseminated on a number of pro-CCP websites.

Network Interactions

The operation functioned as a loosely distributed network. As well as running their own groups, some of its pages joined multiple independent groups (up to 20, in the case of The Pacific Echo), giving them access to a significant potential audience of interest. These clustered around clearly defined themes: for example, the China Defense Focus page joined groups including the World Defence Analysts Forum, the World Military Forum, and the ASEAN Military Defence Review; the page Modern Chinese Warship joined groups including News In China and Military, Aerospace & Technology. Together, these pages ran the group China Defense Focus, and they both joined a group dedicated to China's president, entitled Xi Jinping - China's Exceptional President. Together, these groups gave them access to audiences that were interested in China, the military, or both.
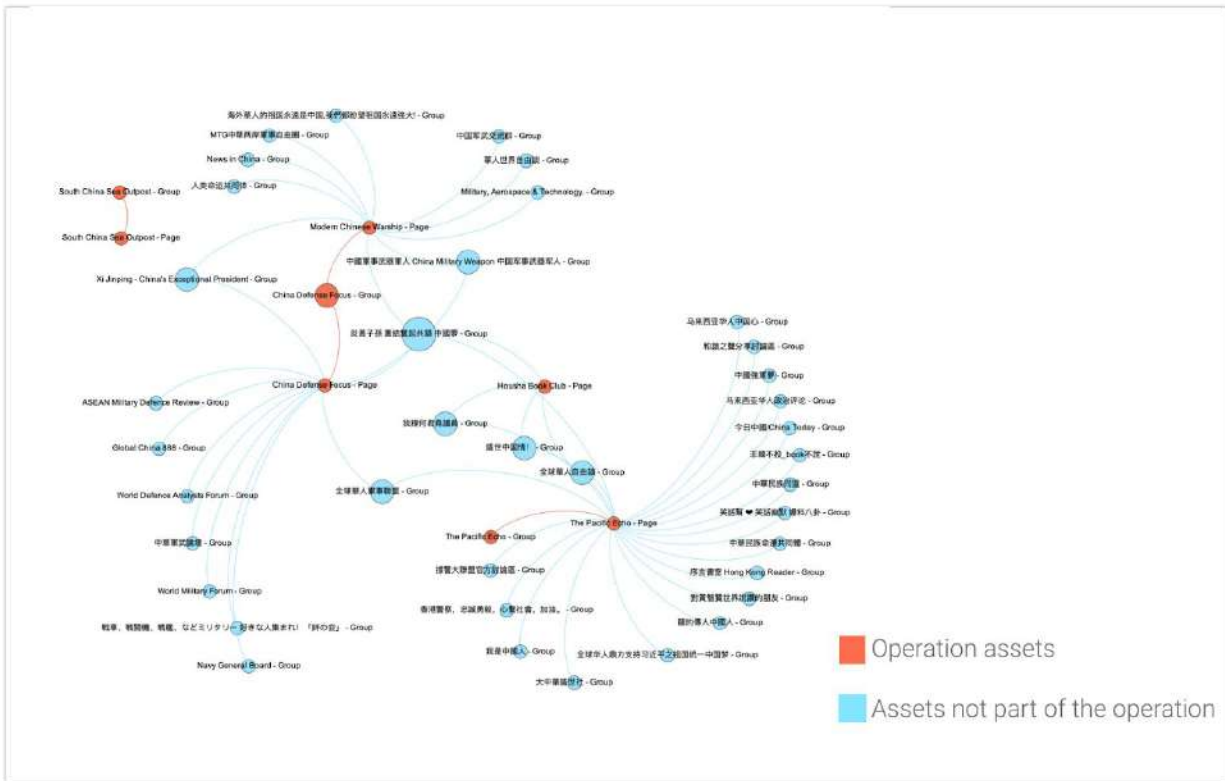

Network diagram of the relationship between pages and groups, with assets that belonged to the operation marked in red.

The shares between pages demonstrated how much the operation attempted to spread its content by using operation-controlled pages to share to multiple groups. The page The Pacific Echo shared content to approximately 20 groups unaffiliated with the operation. One outlier in the

data visualized above was the South China Sea Outpost page and group; this page seems to have only shared content to its own group.

Another visualization showing connections between pages and groups either via shared admins or affiliated pages was also enlightening. The two US-Left focused groups shared an admin; the operation's most successful asset, Solid Sarah Z Duterte 2022, only had one operation asset administering it and did not have overlap with either Duterte Style or the Imee Marcos Global Supporter group. Once again, the South China Sea Outpost page and group stood alone, but the Pacfiic Echo page showed its connections to various groups. The network structure also showed the overlapping nature and scale of their South China Sea and naval defense-focused efforts.
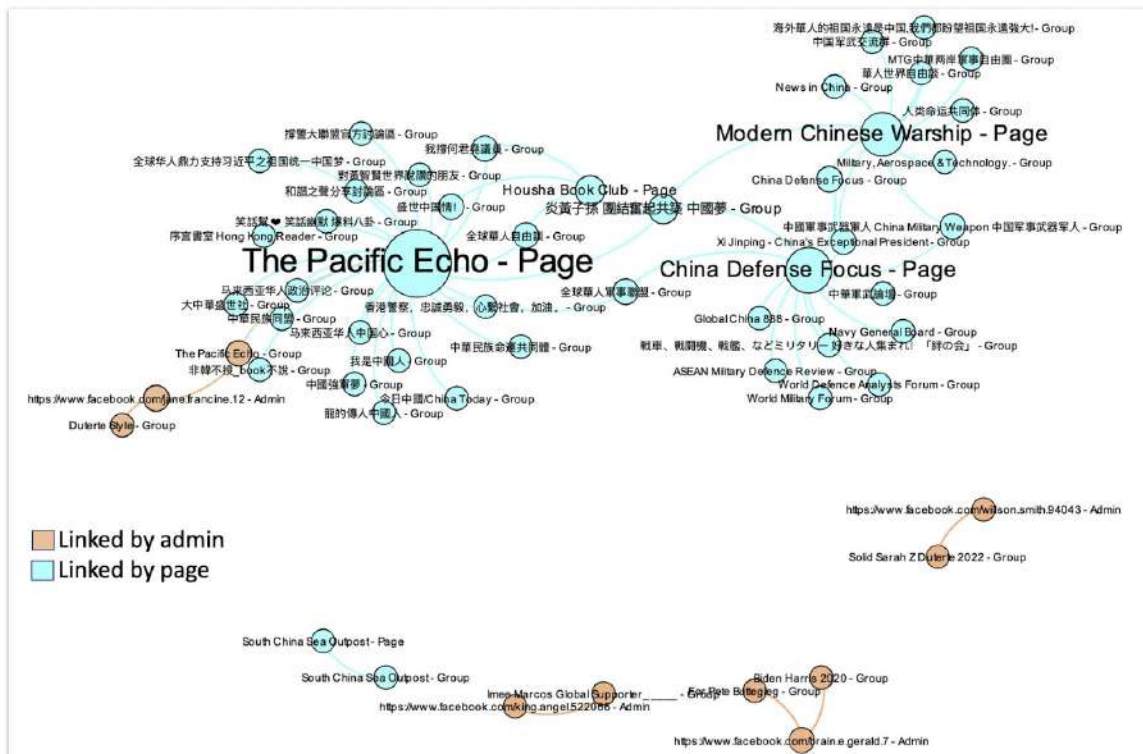
Network graph showing page and group connections: those in light blue are linked by managed page, those in orange are linked via shared admins.

These network images reinforce the conclusion that the operation's main focus was a military, and specifically naval and Chinese, one, and that it sought an appropriate audience. The pages The Pacific Echo, Modern Chinese Warship, and China Defense Focus sat amid a dense web of pages with similar themes; the Philippines- and U.S.-focused pages and groups were distinct both from these and from any larger ecosystem of similarly themed communities. The page and group South China Sea Outpost were an exception, in that they did not join groups themselves, for unknown reasons. Overall, however, the network's practice of joining groups underscores its interest in China and the Navy.