



WEAPONIZED:

HOW RUMORS ABOUT COVID-19'S ORIGINS
LED TO A NARRATIVE ARMS RACE

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The Digital Forensic Research Lab (DFRLab) is a start-up incubated at the Atlantic Council and leading hub of digital forensic analysts whose mission is to identify, expose, and explain disinformation where and when it occurs. The DFRLab promotes the idea of objective truth as a foundation of governance to protect democratic institutions and norms from those who would undermine them.

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INTRODUCTION

In December 2019, a previously unknown virus started to infect the population in Wuhan Province, China. The spread of this novel coronavirus would subsequently become not only one of the deadliest pandemics in modern history, but also a dominating flashpoint in the global competition for information among nations, with competing narratives reflective of competing political systems. Particularly in the period immediately following COVID-19's initial spread, factual information about the disease, its origin, and its symptoms was lacking or withheld – most notably by China – providing the ample space for misleading and malicious information to take root.

Among the many rumors widely circulating around the globe in early 2020 were claims that the virus was engineered as a potential bioweapon. Some versions of this conspiracy theory posited that it was intentionally released on an unsuspecting public. This genre of misleading narrative about a grave issue of national security was utilized predominantly by a range of actors for domestic purposes sometimes at the expense of the type accurate information necessary to an international response to a global public health crisis.

As part of a nine-month joint research project by the DFRLab and the *Associated Press*, this report examines the information environments of four countries – China, the United States, Russia, and Iran – during the first six months of the COVID-19 outbreak and the false narratives that took hold there. The report focuses on how varying, unverified, and outright false narratives that the virus was a bioweapon or the result of a lab accident spread globally on social media and beyond, and the geopolitical consequences of those narratives.

One version of this narrative, for example – that it was a biological weapon released from a lab in China – gained particular popularity in the United States. Speculation about the source of the virus moved from unverified social media accounts and conspiracy theory outlets to government officials, political influencers, and others, often leading to further rounds of speculation across the information ecosystem. Some of these narratives were outright false, while others constituted legitimate, but unverified concerns regarding the possibility of the virus being accidentally released from a Chinese lab. There was also much domestic pushback against these narratives, given the open and democratic nature of the US and its information space.

Yet these were by no means the only narratives taking root, as China aggressively deployed an outright false narrative of its own blaming the US Army for the outbreak, while Kremlin media put forward multiple competing disinformation that the US developed the virus and weaponized it to target China. Iran, in turn, embraced a similar false narrative, with claims it was being intentionally targeted by the virus. The false bioweapons narratives in the authoritarian countries were more potent given the tightly controlled information environments, state amplification with very few or no dissenting officials, and lack of independent checks on accountability like a free press.

The World Health Organization (WHO) recognized relatively early in the crisis that the pandemic presented potential informational dangers and that mis- and disinformation were spreading quickly. On February 2, 2020, the WHO released a COVID-19 situation report that described the pandemic as featuring a parallel *infodemic*: “an over-abundance of information – some accurate and some not – that makes it hard for people to find trustworthy sources and reliable guidance when they need it.”¹

The use of the term was particularly apt, given the viral nature of information itself.

Multiple narratives claiming the spread of COVID-19 was intentional played directly into this infodemic, riding an international wave of fear and suspicion as the disease spread. The fact that there were competing and conflicting narratives originating from different countries, as well as official and non-official sources, added to the informational chaos circulating on social media, traditional media, and public discourse in general.

And while false bioweapons narratives covered a range of goals, they each had real-world consequences. For each nation, the first priority was addressing domestic audiences, though how this was expressed would depend on the nature of their political systems. In China, Russia and Iran, maintaining public order, controlling domestic messaging, and preventing dissent took precedent. In the US, elected political leaders responded to the public health crisis while simultaneously taking into account the desires of their political base, the latter sometimes overtaking the former. In all four cases, understanding the global spread of false or misleading COVID-19 narratives must first be viewed through each nation’s domestic lens.

Precious time that could have been spent engaging in multilateral cooperation and sharing factual, science-based advice to a worried public was lost as countries played a global blame-game without any evidence to back up their accusations. Claims made by individual online political influencers, often framed for domestic audiences, magnified claims that angered adversaries, hardening over time and making it difficult for nations to back down and flatten the curve of heated rhetoric. The competing theories contributed to the loss of public trust, making it all the more difficult for health officials to enforce sound policies.²

Given the earliest reports of the virus came from China, that country was central to narratives that it was a bioweapon either developed by or, conversely, targeting the country. The Chinese approach to information control around the virus followed closely

¹ “Novel Coronavirus (2019-nCoV) Situation Report 13,” World Health Organization, February 2, 2020, https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200202-sitrep-13-ncov-v3.pdf?sfvrsn=195f4010_6.

² Ashley Welch, “How Conspiracy Theories Undermine People’s Trust in COVID-19 Vaccines,” Healthline, February 2, 2021, <https://www.healthline.com/health-news/how-conspiracy-theories-undermine-peoples-trust-in-covid-19-vaccines>; Kevin Stankiewicz, “Bill Gates: Vaccine conspiracies targeting Dr. Fauci and me are ‘unfortunate’ and hurt public trust,” *CNBC*, October 14, 2020, <https://www.cnbc.com/2020/10/14/bill-gates-anti-vaxxer-theories-about-fauci-and-me-hurt-public-trust.html>.

its philosophy of *discourse power*.³ The Chinese Communist Party (CCP) silenced domestic voices reporting on the disease through harsh information control, including imprisonment of journalists, doctors, and public health officials.⁴ Beyond its borders, China initially preferred to boost international perception in its favor by amplifying stories about its benevolence in assisting other countries to combat the virus.⁵ As the disease persisted, however, China began to push narratives that painted its geopolitical competitors in a negative light, including pushing conspiracies such as the idea that COVID-19 was a US biological weapon.

In the United States, government officials, including then-President Donald Trump, made the converse claim implying the virus originated in a laboratory in Wuhan, even postulating that its release could have been intentional.⁶ The language deployed in support of this narrative by some political influencers often followed a pattern of intentional insinuation, which posited at best unverified information, which was then twisted into disinformation when further amplified, offering the original source an unhelpful amount of plausible deniability. These narratives also had a xenophobic tinge,⁷ spreading readily among conspiracy theory and fringe websites. It remained in frequent use as a means of criticizing China, with President Trump deploying versions of it until his final day in office.⁸ Conversely, the xenophobia was opportunistically amplified by US rivals to color the entire country as racist or unwelcoming. The cumulative effect of this was to distract the US public's attention away from the federal government's disjointed approach to mitigating the virus and point the blame at China.

Meanwhile, Russia and Iran used demonstrably false narratives about the disease as a means of furthering their geopolitical agendas, pushing anti-US narratives regardless of veracity. In Russia, where some of the very first narratives emerged, the efforts appeared

³ "Chinese Discourse Power," DFRLab, December 2020, <https://www.atlanticcouncil.org/wp-content/uploads/2020/12/China-Discourse-Power-FINAL.pdf>.

⁴ "China sentences former lawyer who reported on coronavirus outbreak to 4 years in prison," *USA Today*, December 28, 2020, <https://www.usatoday.com/story/news/world/2020/12/28/china-lawyer-journalist-who-reported-coronavirus-sentenced-years-prison/4057787001/>.

⁵ Brian Wong, "China's Mask Diplomacy," *The Diplomat*, March 25, 2020, <https://thediplomat.com/2020/03/chinas-mask-diplomacy/>.

⁶ Maanvi Singh, Helen Davidson, and Julian Borger, "Trump claims to have evidence coronavirus started in Chinese lab but offers no details," *The Guardian*, May 1, 2020, <https://www.theguardian.com/us-news/2020/apr/30/donald-trump-coronavirus-chinese-lab-claim>.

⁷ Tiffany Karalis Noel, "Conflating culture with COVID-19: Xenophobic repercussions of a global pandemic," US National Library of Medicine, July 7, 2020, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7340067/>; Marietta Vasquez, "Calling COVID-19 the 'Wuhan Virus' or 'China Virus' is inaccurate and xenophobic," Yale School of Medicine, March 12, 2020, <https://medicine.yale.edu/news-article/23074/>.

⁸ Maegan Vazquez and Betsy Klein, "Trump again defends use of the term 'China virus,'" *CNN*, March 19, 2020, <https://www.cnn.com/2020/03/17/politics/trump-china-coronavirus/index.html>; Donald Trump, "Full Text of Donald Trump's Farewell Speech on Final Day of Presidency," *MSN*, January 19, 2021, <https://www.msn.com/en-us/news/world/read-full-text-of-donald-trumps-farewell-speech-on-final-day-of-presidency/ar-BB1cTMMb>.

to be less organized than prior efforts of malign influence directed at the United States but still attempted to sow chaos and distrust of the US government.

In Iran, messaging generally targeted its domestic audiences as the political situation in the country was already fraught. Mass protests against gas prices, the US assassination of General Qasem Soleimani, and the accidental shoot-down of a commercial jet left the entire Iranian population on edge, only to be exacerbated by an early outbreak of the virus. The regime's messaging of external threats to the country – especially the United States – was frequently used as a means of renewing the Iranian public's fidelity to the regime.

Whether an attempt to bolster international standing, rally domestic support by deflecting blame, put adversaries on the defensive, or simply to sow informational chaos, the convoluted narratives that emerged about COVID-19's origins ultimately served no one's interests when it came to actually fighting the pandemic. A virus respects neither national interests nor borders.

METHODOLOGY

To understand how COVID-19 bioweapon narratives spread, the DFRLab and *AP* created a database gathering relevant mentions of the topic in four information environments: the United States, China, Russia, and Iran. The team analyzed millions of social media posts and articles, using social media monitoring tools such as Meltwater Explore and BuzzSumo. Queries were created using a snowballing approach that first identified keywords related to the outbreak (COVID, COVID-19, coronavirus, Wuhan, etc.) and then related to bioweapon-related narratives (bioweapon, "biological war") and then included words and expressions that appeared in the results of these seed queries (such as "Wuhan pneumonia", "military games," etc.).⁹ Research was conducted primarily in English, Mandarin, Russian, and Farsi.

Articles and mentions were included in the main database based on three main criteria: (1) mention date, in which earlier mentions were prioritized; (2) engagement; and (3) mentions that showed that the theory was spreading to different countries, communities, and platforms. The result was a dataset with 311 entries, from at least 26 different countries (the exact number is unknown, as some mentions could not be attributed to a specific country), covering information in nine different languages.

A lexical analysis of the dataset presented the most important trends. The analysis revealed the prominence of two theories related to the origins of the virus and two related to its goals. Regarding origins of the virus, the graphs (images 1 and 2) below features

⁹ Example query: ((coronavirus OR corona OR COVID* OR chinavirus OR "China virus" OR "Chinese virus" OR "Wuhan pneumonia" OR "Wuhan virus") AND (bioweapon OR "bio-weapon" OR "biological weapon" OR biowar OR "biological war")).

the false narrative that the United States created the virus at Fort Detrick, a US Army base located in Frederick, Maryland, and brought it to Wuhan during the 2019 Military World Games, and the opposing (but also false) narrative that China created COVID-19 for use as a bioweapon and that it was then leaked from the Wuhan lab where it was allegedly under development, rather than emerging naturally from humans interacting with other organisms.

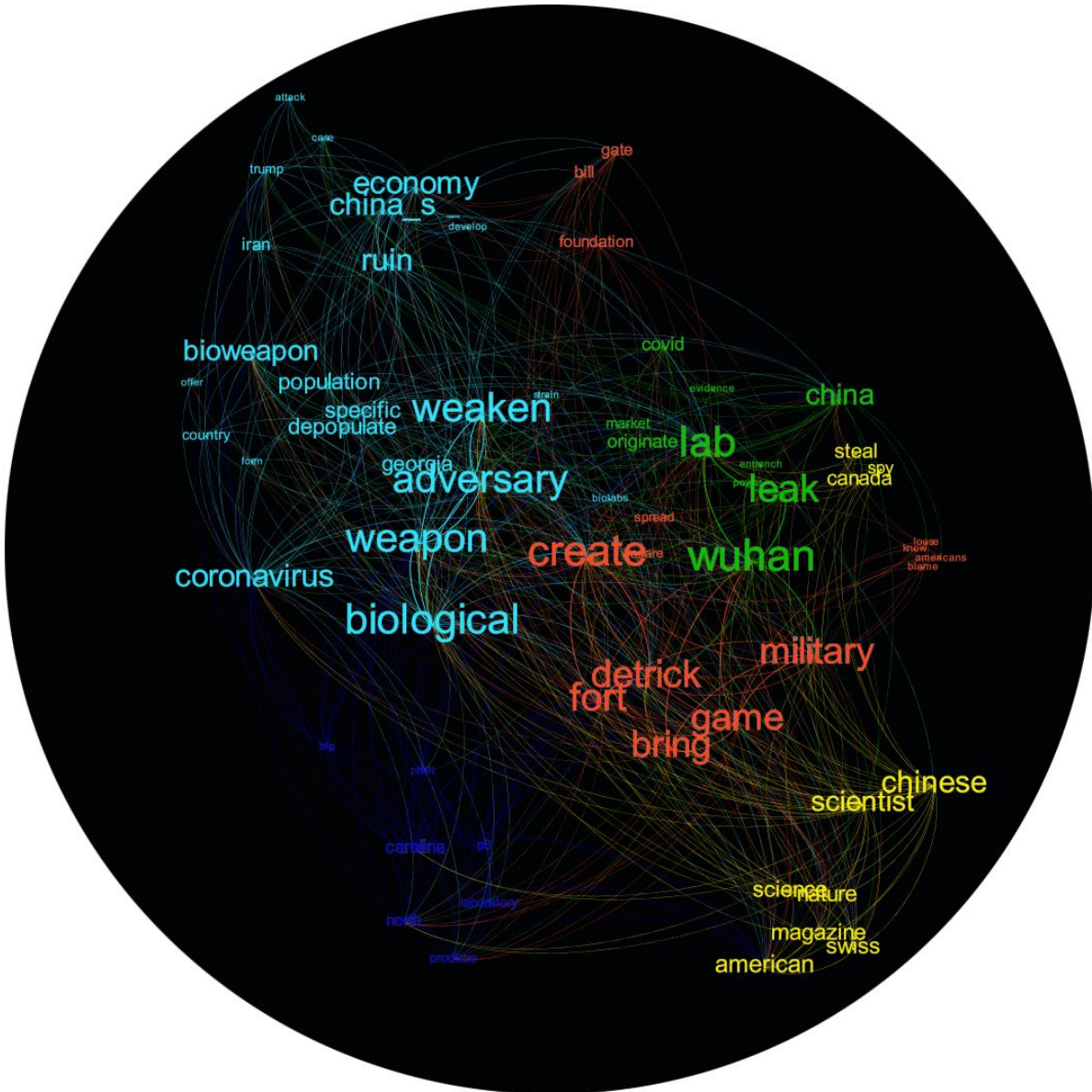


Image 1. A network graph in which the size of the keyword represents how often it appeared in the dataset; the keywords are connected by lines (edges) when they appeared in the same entries in the dataset; keywords that are in the same color appeared together in multiple occasions, indicating that they were often part of the same narrative.¹⁰

¹⁰ Graphic generated by João Guilherme Bastos dos Santos/INCT.DD on behalf of DFRLab.

Regarding the purpose of the virus, two prominent narratives emerged. The first was the virus was created by the United States to weaken its adversaries and destroy China's economy, in the context of the commercial war between both countries. The second was that COVID-19 was a bioweapon genetically modified to target and eradicate specific ethnic groups. Some of those who subscribed to the latter theory claimed that the bioweapon had been created in a US-funded biolab in the country of Georgia, in the Caucasus, or in North Carolina, in the United States. The target also differed: while some believe the target would be ethnic Chinese people, others claimed it was going to be used against people of Iranian origin.

The majority of the entries in the dataset fell into four clusters. Cluster 1 represents narratives suggesting the US Army brought the virus from Ft. Detrick, Maryland to the 2019 Military World Games competition in Wuhan.¹¹ Cluster 2 represents narratives positing a leak from a biolab in Wuhan. Cluster 3 represents narratives claiming the US released COVID-19 in China to weaken their economy. Cluster 4 represents narratives claiming the US genetically modified the virus to target specific ethnic groups.

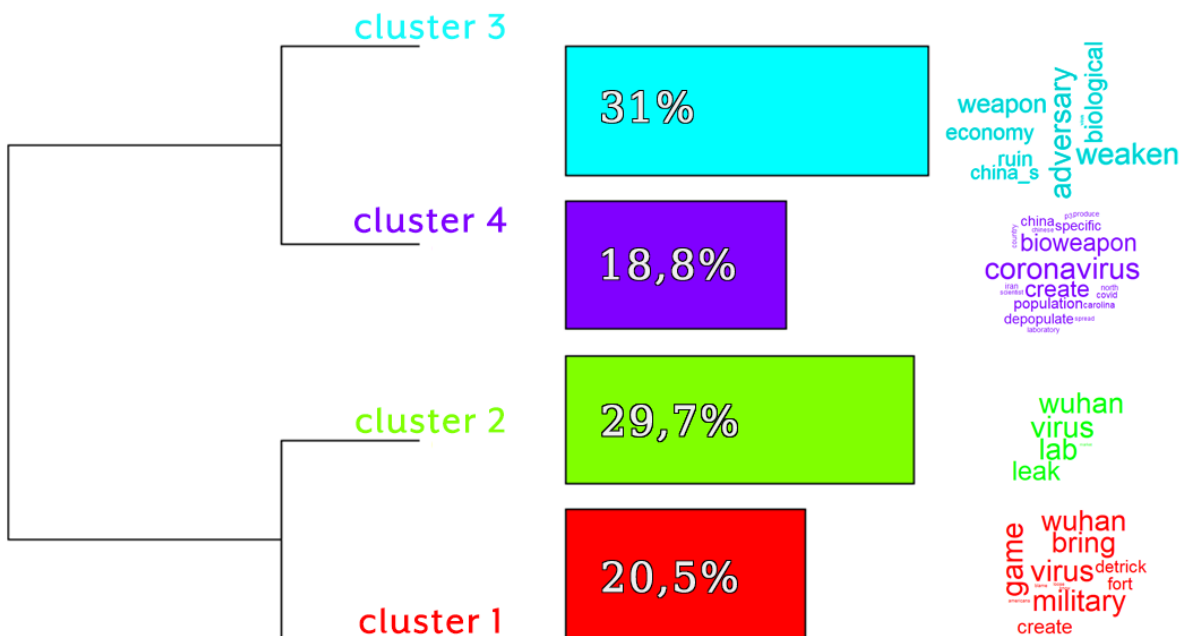


Image 2. Based on the search dataset, the diagram was grouped in four clusters or categories, according to similarities in words and expressions used. In light blue and blue, two clusters about the perceived purpose of the virus; in green and red, two clusters about the perceived origins of the virus.¹²

¹¹ "Spotlight: 7th International Military Sports Council Military World Games," defense.gov, accessed February 14, 2021, <https://www.defense.gov/Explore/Spotlight/CISM-Military-World-Games/>

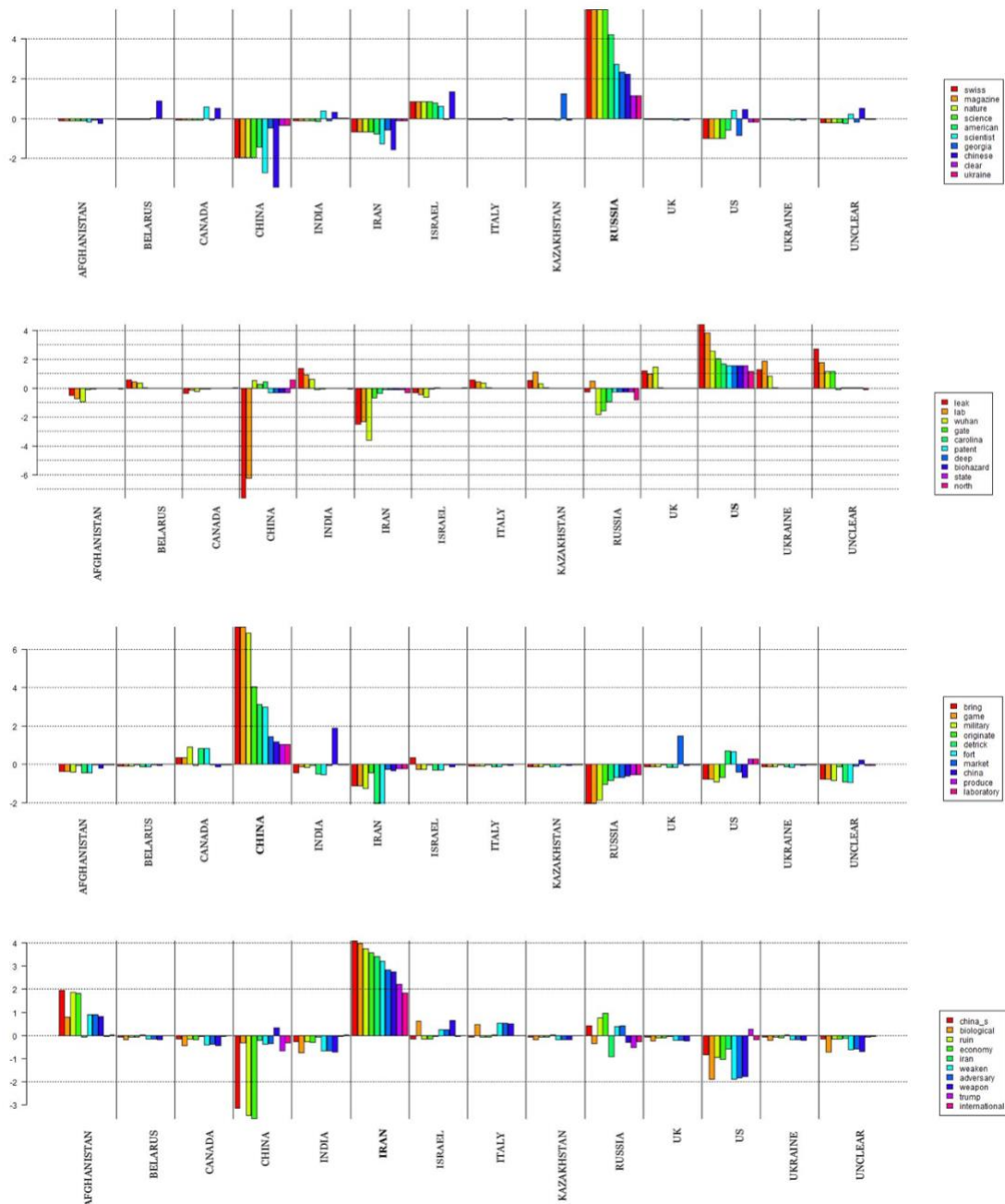
¹² Dendrogram generated by João Guilherme Bastos dos Santos/INCT.DD on behalf of DFRLab.

To understand how different narratives appeared in each country, we conducted a hypergeometric analysis, which is a methodology the DFRLab used to see how likely a particular set of terms originating in content from one particular country would appear in another country's content. This methodology allows for determining narrative overlaps across national boundaries, as well as instances where the terms used in different countries are so divergent that they likely represent separate narratives. Each entry in the database was manually reviewed by researchers to identify country of origin.

The analysis revealed that for content originating in the United States, terms such as "leak," "lab," and "Wuhan" were prominent, demonstrating the popularity of the narrative that the virus leaked – accidentally or not – from the Wuhan lab. Another important trend layered on top of those engaging on this narrative in the United States was the use of the word "deep" in reference to the supposed existence of a "deep state,"¹³ the prevalence of which demonstrates the strength of conspiracy theories that use the term alongside the bioweapon narrative in the country.

In China, the conversation revolved around the 2019 Military World Games and Fort Detrick, the basis for the argument that the virus did not originate in China. In Russia, the Russian words for "Ukraine" and "Georgia" were among the most used words, indicating the regional focus that dominated the discussion in the country after the first reports blaming the United States for the virus. Finally, words like "ruin," "weaken," and "adversary" appeared prominently in Iran in both Farsi and English, illustrating the trend in the country of treating COVID-19 as a security threat, rather than a public health crisis.

¹³ For more on the idea of the deep state, see Rebecca Gordon, "What the American 'deep state' actually is, and why Trump gets it wrong," *Business Insider*, January 27, 2020, <https://www.businessinsider.com/what-deep-state-is-and-why-trump-gets-it-wrong-2020-1>.



In each graph, positive values indicate terms (color code in the box in the right) associated with specific country (country being analyzed in bold at bottom), and negative values indicate the likelihood of a term not being associated with a country.¹⁴

BACKGROUND: BIRTH OF AN INFODEMIC

Narratives about the United States developing viruses as biological weapons against its adversaries are nothing new. In 1980, the Soviet Union carried out a disinformation

¹⁴ Graphs generated by João Guilherme Bastos dos Santos/INCT.DD on behalf of the DFRLab.

campaign suggesting the US had intentionally created HIV/AIDS.¹⁵ The campaign, known as Operation Infektion, started when a fringe outlet in India published an anonymous letter claiming that the virus was the result of US experiments.¹⁶ The narrative soon reached other media outlets around the world, eventually being picked up by mainstream US media. In the decades since, Operation Infektion has become a classic case study in the study of foreign influence operations.

What is less well known, however, is that China also accused the US of germ warfare. During the Korean War, for instance, the country (alongside the Soviet Union and North Korea) accused the US of engaging in germ warfare leading to different diseases outbreaks within the Chinese population.¹⁷ Despite the US rebuttal and lack of decisive evidence, China and North Korea still maintain the allegation, and there is still academic debate about the matter.¹⁸ More recently, in 2003, there were also claims that the SARS epidemic was the fault of the US. In 2003, two Russian medical experts said SARS was man-made.¹⁹ This sparked rumors in China that the US and Taiwan had developed and deployed the SARS virus as a bioweapon directed at China.²⁰

Whereas these tactic and genre of disinformation-based influence effort were not new, neither had been deployed at scale during a truly global health crisis that required international cooperation and competent, accountable governance for an effective response.

The first mentions of COVID-19 as a man-made virus referenced the SARS outbreak to suggest that the new disease in Wuhan could be the result of human actions. On December 31, 2019, users on Chinese social media platform Weibo²¹ wrote that both outbreaks occurred shortly after international conflicts involving the US – the 2003 SARS outbreak around the time of the Iraq War and the new virus arising at a time when tensions between the US and Iran were heightened – and that both viruses mainly

¹⁵ Adam B. Ellick and Adam Westbrook, "Operation Infektion," *The New York Times*, <https://www.nytimes.com/2018/11/12/opinion/russia-meddling-disinformation-fake-news-elections.html>.

¹⁶ *Ibid.*

¹⁷ Renee DiResta, Carly Miller, Vanessa Molter, John Pomfret, and Glenn Tiffert, "Telling China's Story: The Chinese Communist Party's Campaign to Shape Global Narratives," Stanford Internet Observatory, 2020, https://fsi-live.s3.us-west-1.amazonaws.com/s3fs-public/sio-china_story_white_paper-final.pdf.

¹⁸ See Milton Leitenberg, "Chinese Admission of False Korean War Allegations of Biological Weapon Use by the United States," *Asian Perspective* (2016), Vol. 40 Issue 1, p131-146. 16p; and Stephen Endicott and Edward Hagerman, 1998. *The United States and Biological Warfare: Secrets from the early cold war and Korea*, (Bloomington: Indiana University Press, 1998).

¹⁹ Lisa Chiu, "Outbreak of rumors has China reeling / Conspiracy theories explaining SARS at epidemic level," *San Francisco Chronicle*, May 7, 2003, <https://www.sfgate.com/health/article/Outbreak-of-rumors-has-China-reeling-Conspiracy-2618397.php>.

²⁰ *Ibid.*

²¹ 质子研投, "[挖鼻]希望武汉的不明原因肺炎只是个偶然事件, 看看接下来网上会不会有喷实验室的" ("[Nosepick Emoji] Hopefully Wuhan's pneumonia of unknown cause is just an accident. Let's see if there will be attack towards laboratory on the Internet in the future."), Weibo post, December 31, 2019, <https://www.weibo.com/5314897361/InisYaPxY>, archived at <http://archive.vn/AvsnJ>.

appeared to target Chinese populations. Although a few posts went a step further and connected the US more directly with the outbreak, none of the early chatter was coordinated or particularly far-reaching.



Speculation about the virus on Weibo on December 31, 2019.²²

In January 2020, the first conspiracies tying the virus to China appeared online. The earliest mention identified by the DFRLab and AP came from a Twitter user in Hong Kong who, on January 5, 2020, claimed China had created the virus.²³ Shortly after that, the theory began to appear on other platforms, such as 4chan and Reddit.²⁴

²² *Ibid.*

²³ Garbo Gurung (@GarboHK), "18 years ago, #China killed nearly 300 #HongKongers by unreporting #SARS cases, letting Chinese tourists travel around the world, to Asia specifically to spread the virus with bad intention. Today the evil regime strikes again with a new virus. #Wuhan #ChinesePneumonia #bioweapon," Twitter post, January 4, 2020, archived at <https://archive.is/hWYRE>.

²⁴ Anonymous, "China Hate Thread," 4chan post, January 24, 2020, archived on May 4, 2020, at <http://archive.ph/A4Gyc>; u/hogancheveippoff, "Maximum security biolab opened a few years ago in...ahem...Wuhan, China," Reddit thread, February 20, 2020, archived on February 20, 2020, at <http://archive.ph/mSVoE>.



Earliest claim identified by the DFRLab and AP regarding China allegedly releasing the virus.²⁵

The first state-backed source suggesting that the novel coronavirus might have been made by the US appeared on January 20, 2020, in the Russian Army media outlet *Zvezda*.²⁶ The article stated the outbreak of unknown pneumonia in China “might be a type of biological weapon” and included a video interview with Igor Nikulin,²⁷ an individual with dubious credentials who the outlet portrayed as an “expert.”

In this first iteration, Nikulin stopped short of explicitly saying the US had created the virus. Instead, he implied it by describing a case with the US Naval Medical Research Unit (NAMRU) laboratory in Jakarta, which local Indonesian authorities suspected of bioweapon development and unsanctioned secret experiments with bird flu viruses.²⁸ These allegations remain unproven and most likely politically motivated;²⁹ nevertheless, Nikulin used the case to claim that the US was capable of developing biological weapons and therefore might have created the novel coronavirus to “pressure Chinese partners.”³⁰ In the same interview, he suggested the virus also might have been made by “US corporations that develop new diseases to later profit from selling drugs.”

²⁵ Garbo Gurung (@GarboHK), “18 years ago, #China killed nearly 300 #HongKongers.”

²⁶ Alexandra Arsentieva, “Эксперт связал вспышку пневмонии в Китае с испытанием биологического оружия” (“Expert linked outbreak of pneumonia in China to testing of biological weapons”), *Zvezda*, January 20, 2020, archived at <https://archive.is/FlnTE>.

²⁷ Igor Nikulin, Facebook About page, accessed June 10, 2020, archived at <https://archive.is/f2qJt>.

²⁸ Mark Forbes, “Indonesian fears over US Navy laboratory,” *The Age*, April 26, 2008, <https://www.theage.com.au/world/indonesian-fears-over-us-navy-laboratory-20080426-ge70bl.html>.

²⁹ *Ibid.*

³⁰ Arsentieva, “Эксперт связал вспышку.”

The *Zvezda* article did not garner significant interaction on social media, according to social media listening tool BuzzSumo, accumulating just 31 engagements on Facebook as of April 2020. Still, the narrative spread in Russia, with Nikulin being interviewed by other outlets and appearing frequently on state television channels.

As Russian outlets continued to suggest that the United States might have created the virus, on January 23, 2020, British tabloid *The Daily Mail* published an article insinuating the virus could have leaked from a Chinese biosafety lab located in Wuhan.³¹ The story fell short from saying China had intentionally released the virus but cited an article published by *Nature* magazine in 2017 to claim that “Scientists warned in 2017 that a SARS-like virus could escape a lab set up that year in Wuhan, China, to study some of the most dangerous pathogens in the world.” The article was the first to receive significant interaction on social media, garnering 238,000 reactions, including more than 200,000 Facebook engagements, 29,000 retweets and 1,700 reddit mentions as of April 2020.

The narrative that China created COVID-19 as a bioweapon reached a new level of narrative spread after *Great Game India*,³² an obscure Indian geopolitics blog with a history of publishing conspiracy theories,³³ published an article claiming that Chinese spies had stolen coronavirus samples from a Canadian lab and weaponized it. Even though this article did not receive significant engagement initially, it was republished and amplified by fringe US websites such as *ZeroHedge*, known for spreading falsehoods and conspiracy theories.³⁴

Up to that point, Chinese state media coverage had primarily focused on positively reporting on China’s response to the virus.³⁵ But as bioweapon claims escalated, Chinese

³¹ Natalie Rahhal, “China built a lab to study SARS and Ebola in Wuhan – and US biosafety experts warned in 2017 that a virus could ‘escape’ the facility that’s become key in fighting the outbreak,” *The Daily Mail*, January 23, 2020, <https://www.dailymail.co.uk/health/article-7922379/Chinas-lab-studying-SARS-Ebola-Wuhan-outbreaks-center.html>.

³² “Coronavirus Bioweapon – How China Stole Coronavirus From Canada And Weaponized It,” *Great Game India*, accessed January 26, 2020, archived January 27, 2020, at <https://web.archive.org/web/20210211220613/https://greatgameindia.com/coronavirus-bioweapon/>.

³³ Gabby Deutch, “How One Particular Coronavirus Myth Went Viral,” *Wired*, March 19, 2020, <https://www.wired.com/story/opinion-how-one-particular-coronavirus-myth-went-viral/>.

³⁴ Ellen Cranley, “Finance blog Zero Hedge was banned from Twitter for Wuhan coronavirus misinformation. It’s not the first time the publication has raised eyebrows,” *Business Insider*, February 1, 2020, <https://www.businessinsider.com/who-is-zero-hedge-finance-blog-that-spread-coronavirus-misinformation-2020-2>.

³⁵ “In unprecedented move, China locks down megacity to curb virus spread,” *Xinhua*, January 24, 2020, <http://en.people.cn/n3/2020/0124/c90000-9651630.html>; “World leaders positively evaluate, support China’s fight against virus outbreak,” *Xinhua*, January 31, 2020, <http://en.people.cn/n3/2020/0131/c90000-9652933.html>; “International media and experts impressed by China’s speed in battling coronavirus,” *CGTN*, January 26, 2020, <https://news.cgtn.com/news/2020-01-26/Int-l-experts-impressed-by-China-s-speed-in-battling-coronavirus-NzbsgnyL1C/index.html>; “China allocates 1 billion yuan to coronavirus-hit Hubei Province,” *CGTN*, January 24, 2020,

media began casting doubt around the origins of the virus. An article from state-controlled Chinese outlet *CGTN* cited domestic research papers that questioned the origins of the virus – both from a species and geographical perspective – saying there was no evidence it had emerged in a market.³⁶ Amplification of this reporting via *CGTN*'s primary Facebook page accentuated the “uncertainty” around the virus’s origins.

WHO SHARED THIS LINK?	MESSAGE	DATE	INTERACTIONS
CGTN 93,019,260 Page Likes	Bats? The seafood market? Snakes? What exactly is the source of the novel coronavirus outbreak in China? 🤔 The discussion has led to a significant divide among scientists worldwide. Here are some theories related to the studies finding the source.	JAN 29, 2020	1,052
CGTN 93,019,260 Page Likes	While a team of scientists has raised doubts that the virus originated from Huanan Seafood Market, another group of researchers claims snakes sold in the market led to the outbreak. #coronavirus	JAN 29, 2020	739
CGTNEurope 20,810 Page Likes		JAN 28, 2020	12

Screenshot of CrowdTangle shows pages and groups that shared the CGTN article on Facebook as of January 29, 2020.³⁷

On January 30, 2020, two players that would later have a strong impact in the spread of the conspiracy entered the mix. That day, the obscure podcast *Geopolitics and Empire* posted an interview with American law professor and author Francis Boyle,³⁸ who has a history of spreading conspiracies,³⁹ in which he insinuated that COVID-19 was a Chinese bioweapon. Before being removed from YouTube in March, the video of the interview garnered 292,000 views. Boyle later appeared on Alex Jones’ *InfoWars*, which would become a major source for different communities to claim that the virus was a bioweapon.

The second important actor that joined the conspiracy that day was Iran, with an article published by the Islamic Republic of Iran Broadcasting (IRIB), the country’s state media

<https://news.cgtn.com/news/2020-01-24/China-allocates-1-billion-yuan-to-coronavirus-hit-Hubei-Province--NuRsTIpmNO/index.html>.

³⁶ Alok Gupta, “Conflicting studies on source of coronavirus divide scientists,” *CGTN*, January 29, 2020, <https://news.cgtn.com/news/2020-01-28/Conflicting-studies-on-source-of-coronavirus-divides-scientists-NCHp2p2d4k/index.html>.

³⁷ CrowdTangle query run and captured by DFRLab.

³⁸ “Francis Boyle: Wuhan Coronavirus is an Offensive Biological Warfare Weapon,” *Geopolitics & Empire*, January 30, 2020, archived on March 14, 2020, at <https://web.archive.org/web/20200314160729/https://www.youtube.com/watch?v=TsyujitOFM>.

³⁹ “Is the Zika Virus Weaponized GMO? Dr Francis Boyle Explains,” *Infowars*, January 30, 2016, https://www.youtube.com/watch?v=w9j7E-C_5T4&lc=Uggxdfudbdm5q3gCoAEC&ab_channel=ThePoliticsofSmoking; Luis R. Miranda, “Bio-weapons Expert: Zika Virus is a Genetically Engineered Disease,” *The Real Agenda News*, February 2, 2016, <https://real-agenda.com/world-3/bio-weapons-expert-zika-virus-genetically-engineered-disease/>.

broadcasting agency. The article featured Matthias Chang, a former secretary to Malaysia's prime minister. In the article, published in Persian, Chang claimed that COVID-19 had been introduced to Wuhan by US military personnel coming from the US to participate in the October 2019 Military World Games.

CASE STUDIES

While there is enormous political variance between the four countries analyzed – the United States being the only liberal democracy among them – the reasons for promoting false narratives share certain motivations: individuals looking to expand their influence; outlets with a history of bias or falsehoods amplifying messages to their core audiences; worries that the public might blame their own governments for the pandemic if appropriate scapegoats cannot be identified elsewhere. In that sense, the many COVID-19 conspiracies that unfolded became a rhetorical arms race as countries pointed fingers at each other while simultaneously trying to quell the outbreak at home.

To minimize repetition, this report attempts to highlight each case nation study by presenting them in approximate chronological order of escalating usage of false bioweapons narratives.

Russia

While other countries were slow to identify a culprit – either fabricated or actual – for the rise of COVID-19, pro-Kremlin media implicated the United States in the earliest weeks of the pandemic. Historically, Russia had previously used influence operations to blame the United States for past health crises, such as in the case of Operation Infektion and HIV/AIDS. More recently, following its interference in the 2016 elections, Russia has been the first suspect when it comes to disinformation operations targeting the United States, even in cases where it was not warranted.⁴⁰

The DFRLab's analysis around COVID-19 showed that Russia's involvement in spreading disinformation that the disease was a bioweapon included varied and sometimes conflicting narratives, though all fit into the overarching strategy of projecting strength and undercutting geopolitical rivals.⁴¹

In the early weeks of the pandemic, as Russian state-owned media ran several stories pointing fingers at the United States, it largely relied on existing conspiracy theories circulating online and the free amplification provided by fringe websites. This suggested that Russian information operations at this stage of the pandemic relied less on a

⁴⁰ Foreign Interference Attribution Tracker, DFRLab, accessed February 13, 2021, <https://interference2020.org/>.

⁴¹ Sheera Frenkel, Maria Abi-Habib, and Julian E. Barnes, "Russian Campaign Promotes Homegrown Vaccine and Undercuts Rivals," *The New York Times*, February 5, 2021, <https://www.nytimes.com/2021/02/05/technology/russia-covid-vaccine-disinformation.html>.

coordinated narrative effort but instead on a loose network of like-minded entities that sometimes contradicted each other. In the end, it seems that Russia was able to sow confusion despite the apparent absence of a well-executed plan, essentially allowing its online supporters to throw various COVID-19 theories at a wall to see what would stick.

Russia's modern media and information distribution are mainly vested in two closely linked players: broadcaster *Rossiya Segodnya*, which owns and operates known disinformation outlet *Sputnik*, among others, and the news outlet *RT*. Both organizations are headed by the same editor,⁴² with publicly stated commitments to secure Russia's national interests through their reporting.⁴³ In practice, *Rossiya Segodnya* and *RT* are deployed as a way of destabilizing and ridiculing the Kremlin's detractors and hiding their faults. Russia's external strategy is less projection of a positive image of the country in favor of sowing discord and chaos in the target country; this approach falls under a general ethos that, if its adversaries are weakened, Russia's relative power, influence, and standing will increase.

Even though Russian state-linked outlets were the first to speculate about the origins of the virus and blame the US for developing COVID-19 as a bioweapon, other reporting by state-owned and state-adjacent outlets appeared more opportunistic than coordinated. Much of the reporting consisted of aggregations of existing coverage taken from sources based in Iran, China, and the US.

As noted earlier, the first state-backed reference to COVID-19 being a US bioweapon appeared in Kremlin-backed *Zvezda* in January 2020.⁴⁴ After that, Igor Nikulin became the central Russian purveyor of this narrative, as he was utilized by other fringe and state-adjacent outlets.

Nikulin was one of the earliest people to propose the notion that the United States was responsible for the development of the novel coronavirus. But it was not the first time he engaged in such behavior, as he has a history of boosting conspiracy theories. In 2013, for example, he claimed on a fringe YouTube science channel that influenza and MERS were biological weapons.⁴⁵ Later, in October 2017, he was the first person to mention a conspiracy theory about "forces" collecting Russian biological material that would later be

⁴² Julia Davis, "Kremlin-Funded TV Airs Mind-Numbingly Racist Blackface Attack on Obama," *The Daily Beast*, November 30, 2020, <https://www.thedailybeast.com/margarita-simonyan-head-of-rt-and-sputnik-defends-racist-blackface-attack-on-obama>.

⁴³ Ben Nimmo, "Question That: RT's Military Mission," DFRLab, January 8, 2018, <https://medium.com/dfrlab/question-that-rt-s-military-mission-4c4bd9f72c88>.

⁴⁴ Arsentieva, "Эксперт связал вспышку."

⁴⁵ "Вирус гриппа биологическое оружие?" ("Is the flu virus a biological weapon?"), Наука сетевой телеканал #tvnauka ("Science network TV channel #tvnauka"), January 28, 2013, https://www.youtube.com/watch?v=j3T2cw_eCVA; "koronavirus," Наука сетевой телеканал #tvnauka, May 5, 2013, <https://www.youtube.com/watch?v=IGSXCZyLyqY>. Translations by Yandex Translate.

amplified by Russian President Vladimir Putin.⁴⁶ In 2018, Nikulin falsely claimed that the United States and United Kingdom, not Russia, were behind the poisoning of the former KGB spy Sergey Skripal.⁴⁷

Nikulin's public biography would ostensibly lend such conspiracy theories a veneer of credibility. Much of what he claims to be his background is uncorroborated by public evidence. Nikulin was boosted into fame by Russian state media, and *RT* in particular, where he was introduced as a former member of the "United Nations Biological and Chemical Weapon Council." This entity, however, does not exist. While the United Nations has bioweapons experts, their work is conducted under the auspices of the UN Office for Disarmament Affairs,⁴⁸ which is organized into several branches.⁴⁹ Nikulin's name does not appear on the UN website for past or present involvement, according to online searches. Notably, UN officials contacted by the *AP* during the course of this investigation did not recognize his name.

Nikulin also claims to have been hunted by US forces in Iraq and allegedly discovered a US plan to invade the country in 1998, supposedly postponing the war for five years.⁵⁰ On Facebook, Nikulin's user account profile indicates that he is a senior lecturer at Moscow State Technology and Management University, but there is no mention of him on the university's website.⁵¹ The DFRLab has contacted the university but, until the publication of this report, had not heard back from it. Nikulin has also previously claimed to have worked as a senior biotechnology expert and a vice president at Russian biotech company Bioran, but there is no trace of him on its website.⁵²

The only thing that appears to be true in Nikulin's biography is that he ran for office as a member of the Just Russia political party.⁵³ Indeed, data from the Russian Election Commission confirms that he made four unsuccessful bids for federal and local office

⁴⁶ Sergei Golubev, "Цирк Никулина. Что имел в виду президент, говоря о сборе биологического материала" ("Nikulin's Circus: What the president meant by collecting biological material"), MediaZona, October 30, 2017, <https://zona.media/article/2017/10/30/circus>. Translations by Yandex Translate.

⁴⁷ Will Stewart and Kelly-Ann Mills, "Russian expert claims US and UK are behind Sergei Skripal poisoning and suggests spy was smuggling chemical weapons," *The Daily Mirror*, March 16, 2018, <https://www.mirror.co.uk/news/world-news/russian-expert-claims-uk-behind-12202598>.

⁴⁸ "About Us," UN Office of Disarmament Affairs, accessed February 14, 2021, <https://www.un.org/disarmament/about/>.

⁴⁹ "Organizational Structure of the UN Office of Disarmament Affairs," UN Office of Disarmament Affairs, accessed on February 13, 2021, <https://unoda-web.s3-accelerate.amazonaws.com/wp-content/uploads/assets/HomePage/ODAPublications/Yearbook/2007/PDF/org-chart.pdf>.

⁵⁰ Igor Nikulin biography, Web-soft, archived on May 12, 2018, at <https://web.archive.org/web/20180512003907/http://nikulin.web-soft.ru/work/biography>.

⁵¹ Igor Nikulin, Facebook About page; MSTMU website, accessed February 13, 2021, <http://mgutm.ru/>.

⁵² Bioran website, accessed February 13, 2021, <http://bioran.ru/?lang=en>.

⁵³ Igor Nikulin, Facebook About page.

between 2009 to 2013.⁵⁴ During his campaign to be head of the Serpukhov municipal district of the Moscow region in 2013, his stated occupation was “unemployed.”

In the early stages of the pandemic, Nikulin appeared on television at least 18 times, beginning on January 27, 2020, when he claimed that the virus was engineered to target the Chinese on *REN TV*,⁵⁵ a Russian outlet often accused of spreading conspiracies.⁵⁶ In the interview, Nikulin did not specify what country had developed the virus, though he did imply – as he would continue to do – that the United States had strong reasons to do it. On April 21, 2020, he told *Zvezda TV* in an interview that the United States most likely created the virus and tested it at the Wuhan Lab.⁵⁷

Ten out of Nikulin’s 18 television appearances between January and April were on Russian state-owned channels, including *Rossiya 1*, *Rossiya 24*, and *Zvezda TV*.⁵⁸ The TV show “Vremya Pokazhet” (“Time Will Tell” in Russian), aired on *Rossiya 1*, featured Nikulin six times. These articles, however, did not garner significant engagement on social media.

In his earliest appearances on this show, the host expressed some skepticism that the virus was synthetic in origin.⁵⁹ By April 20, however, the same host said that Nikulin’s theory could be right,⁶⁰ after a French virologist, Luc Montagnier, made a similar claim

⁵⁴ Nikulin candidate page, Russian Election Commission, accessed February 13, 2021, <https://candidates.golosinfo.org/p/50420-nikulin-igor-viktorovich>.

⁵⁵ “Мутация, тайная лаборатория или провокация: откуда пришел коронавирус” (“Mutation, secret laboratory, or provocation: where did the coronavirus come from”), Ren TV, January 26, 2020, <https://ren.tv/news/v-mire/653042-mutatsiia-tainaiia-laboratoriia-ili-provokatsiia-otkuda-prisheil-koronavirus>. Translation by Yandex Translate.

⁵⁶ Mitch Prothero, “For years, Russia targeted conspiracy theories at a US-funded lab on the frontline of coronavirus testing,” *Business Insider*, March 19, 2020, <https://www.businessinsider.com/russian-conspiracy-theories-tbilisi-lugar-lab-coronavirus-test-2020-3>.

⁵⁷ “Между тем. Кто придумал коронавирус” (“Meanwhile, who invented the coronavirus?”), *Zvezda TV*, April 21, 2020, <https://yapolitic.ru/9141-mezhdu-tem-kto-pridumal-koronavirus-210420>.

⁵⁸ Search results, *Rossiya 1*, accessed on February 13, 2021, <https://www.1tv.ru/search/videos?as=person&q=tag%3A%D0%98%D0%B3%D0%BE%D1%80%D1%8C%20%D0%9D%D0%B8%D0%BA%D1%83%D0%BB%D0%B8%D0%BD%0D; %D0%A0%D0%BE%D1%81%D1%81%D0%B8%D1%8F24; %D0%A0%D0%BE%D1%81%D1%81%D0%B8%D1%8F24>; “Является ли коронавирус биологическим оружием: мнения экспертов” (“Is the coronavirus a biological weapon: expert opinions”), *Rossiya 24*, March 18, 2020, https://www.youtube.com/watch?v=3-C-pFxAA&ab_channel=%D0%A0%D0%BE%D1%81%D1%81%D0%B8%D1%8F24; “Коронный вирус США” (“US coronavirus”), *Zvezda TV*, January 31, 2020, <https://www.youtube.com/watch?v=0DbzqmlFT4Q>. Translations by Yandex Translate.

⁵⁹ “Китайский вирус” (“Chinese virus”), *Время покажет* (“Time will tell”), January 28, 2020, <https://www.1tv.ru/shows/vremya-pokazhet/vypuski/kitayskiy-virus-vremya-pokazhet-fragment-vypuska-ot-28-01-2020>. Translation by Yandex Translate.

⁶⁰ “О коронавирусе” (“About the coronavirus”), *Время покажет*, April 20, 2020, <https://www.1tv.ru/shows/vremya-pokazhet/vypuski/o-koronaviruse-vremya-pokazhet-fragment-vypuska-ot-20-04-2020>. Translation by Yandex Translate.

during an interview on *CNews France* on April 17.⁶¹ Montagnier's statements, however, were strongly criticized by the scientific community.⁶²

Beyond Nikulin, Russian media appeared to focus on COVID-19 narratives from a regional perspective, spreading rumors that US-funded labs in post-Soviet countries – such as the Richard Lugar Center for Public Health Research in Tbilisi, Georgia – are secret bioweapons labs. While some of these labs developed bioweapons during Soviet times, they are now at the forefront of civilian biological research in countries such as Georgia, Armenia, and Kazakhstan.⁶³ Russian media, nonetheless, amplified claims that they could be the source of COVID-19 in a likely effort to blame the United States, which has given funds to these labs, and sow regional tensions at the same time.

In addition to state-run and state-adjacent media coverage, Russia was also accused of covertly spreading the bioweapon theory, among other COVID-19 conspiracies. On July 28, 2020, the *New York Times* published an article regarding declassified intelligence reports showing that Russian military intelligence used websites to push disinformation about the pandemic.⁶⁴ One of the articles mentioned, published by InfoBrics.org – a website that claims to be independent – reproduced Beijing's accusations that the United States had created the virus as a bioweapon.⁶⁵ *The New York Times* also found that Russian Twitter accounts were retweeting posts from US user accounts that included claims that COVID-19 was a bioweapon.⁶⁶

This represented a shift from Russia's strategy circa 2016, when it created the accounts that posted divisive content to sow distrust; in the new model, Russian accounts exploited pre-existing false or misleading COVID-19 narratives in the United States by simply amplifying the local US voices posting them, including conspiracy theorists and QAnon supporters.

⁶¹ "«LE CORONAVIRUS EST UN VIRUS SORTI D'UN LABORATOIRE CHINOIS AVEC DE L'ADN DE VIH», SELON LE PRIX NOBEL DE MÉDECINE LUC MONTAGNIER" ("The coronavirus is a virus that came out of a Chinese laboratory with HIV DNA," according to Nobel Prize in Medicine winner Luc Montagnier"), *CNEWS*, April 17, 2020, <https://www.cnews.fr/france/2020-04-17/le-coronavirus-est-un-virus-sorti-dun-laboratoire-chinois-avec-de-ladn-de-vih>. Translation by Yandex Translate.

⁶² "Coronavirus man-made in Wuhan lab, says Nobel laureate," *The Week*, April 19, 2020, <https://www.theweek.in/news/world/2020/04/19/coronavirus-man-made-in-wuhan-lab-says-nobel-laureate.html>.

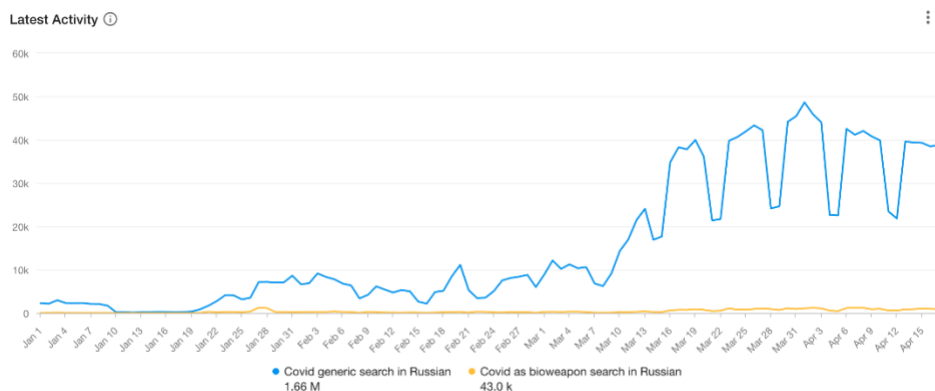
⁶³ Paul Stronski, "Ex-Soviet Bioweapons Labs Are Fighting COVID-19. Moscow Doesn't Like It," *Foreign Policy*, June 25, 2020, <https://foreignpolicy.com/2020/06/25/soviet-bioweapons-labs-georgia-armenia-kazakhstan-coronavirus-russia-disinformation/>.

⁶⁴ Nicole Perlroth, "A Conspiracy Made in America May Have Been Spread by Russia," *The New York Times*, June 15, 2020, <https://www.nytimes.com/2020/06/15/technology/coronavirus-disinformation-russia-iowa-caucus.html>.

⁶⁵ Lucas Leiroz, "Beijing believes COVID-19 is a biological weapon," *BRICS*, March 16, 2020, archived at <https://archive.vn/EHkN7>.

⁶⁶ Perlroth, "A Conspiracy Made in America."

The narrative that the novel coronavirus is a man-made bioweapon, however, did not appear to dominate the Russian-language information environment in news stories related to COVID-19. According to a DFRLab analysis conducted using the media monitoring tool Meltwater Explore, it represented just 2.5 percent of all online news articles that mentioned the keywords “Коронавирус” (“coronavirus”) or “Ковид/Covid” (“COVID” – both the Cyrillic and the Latin word were used in Russian articles) between January 1 and April 17, 2020.



Comparison of the number of mentions containing “Коронавирус” (“coronavirus”) or “Ковид/Covid” (“COVID”) in Russian (blue line) with the number of mentions of the virus as a man-made bioweapon (yellow line).⁶⁷

The results suggested that the bioweapon narrative was just one of many themes that Russian media covered when reporting on the coronavirus. This could be due to the fact that, among other things, Russia was struggling with COVID-19 at home and felt the need to focus messaging to the country’s domestic response to the pandemic. Additionally, as the exchange of accusations between the United States and China escalated, the information environment was already volatile, sparing Russia from the need to use its resources to develop and propagate a singular narrative in its favor.

The United States

Of the four countries comprising this report, the United States was the only one in which online narratives about the virus focused almost exclusively on China’s involvement. While the US’s strong tradition of a free press guaranteed there was high degree of reliable public health information from varied sources and checks against false and unproven claims, the fact that United States has a massive open information environment also means that fringe actors like conspiracy theorists can exploit that environment and amplify narratives that have no basis in reality, particularly when the public is fearful, as in the case of a pandemic.

⁶⁷ DFRLab-generated graph made using Meltwater Explore.

From the United States, bioweapons narratives took predominant forms with varying degrees of falsity and a high degree of audience overlap among online conspiracy communities. The first general narrative posited that the Chinese government created COVID-19 as a bioweapon carries a higher degree of outright falsehood. The second general narrative that COVID-19 was released from Wuhan lab, intentionally or unintentionally, was unverified and increasingly unlikely, though more plausible, especially during the early months of the pandemic.

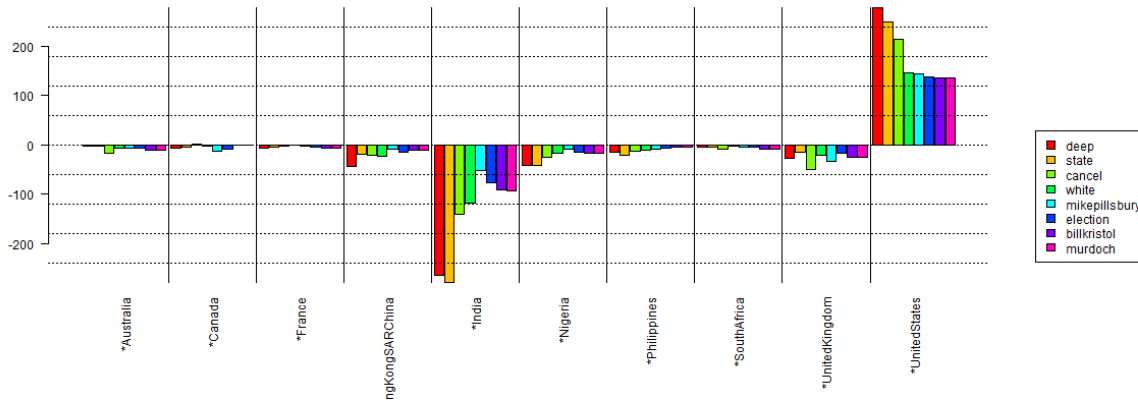
The COVID-19 crisis and the US government's disjointed steps to combat it fed into a vast and ever-evolving ecosystem of ideologically motivated – often xenophobic or racist – online conspiracy communities. These communities, often on the fringes of public discourse, nurtured a steady demand for disinformation and conspiracies from domestic US audiences, ultimately rendering the US particularly vulnerable to information operations, both foreign and domestic, despite the best efforts of national public health officials, such as Dr. Anthony Fauci, to keep the public well informed.

In 2020, QAnon, a decentralized conspiracy movement whose adherents subscribe to a sprawling web of unsupported beliefs premised around the existence of a “deep state” and a worldwide “shadow elite,” was instrumental in the amplification of the theory that COVID-19 was a Chinese bioweapon. The traditional view about conspiracy theories is that they exist along the fringes of the information space, apart from the mainstream and official communications. However, in the United States, these conspiracy theories have permeated all layers of discourse, particularly being embraced by elements of mainstream media and individual conservative policymakers during the Trump Administration.

Furthermore, a symbiotic relationship between conservative media and policymakers helped spread the claim that the virus came from a Chinese lab – an idea that resonated with their highly partisan domestic audiences. While China remained the target throughout the year, the narrative evolved over the course of the first half of 2020. Between January and April 2020, an initial variant of the narrative popular among domestic conspiracy theorists speculated that China had deliberately created the virus and released it into the world, which was characterized by some who amplified it with the term “bioweapon.” By April, the narrative evolved, with speculation generally focusing on an accidental release of the virus from the lab that was studying a natural variant of it.

To understand this trend, the DFRLab analyzed a dataset made of 377,600 tweets related to a variety of bioweapon narratives, published in English, between January 6, 2020, and June 6, 2020. Most of them (129,800) originated in the United States⁶⁸ but other tweets in English that came from India, the United Kingdom, Canada, and other countries were also analyzed to enable comparisons and help understand US-specific characteristics (e.g., “deep state” appeared to be used predominantly used by the US-based accounts).

⁶⁸ Twitter users that set their location to the United States. It is possible that some other users that did not set their locations on Twitter were also based in the country.



Hypergeometric analysis shows prominence of terms such as "deep state" in US debate, a trend that did not appear in other countries.⁶⁹

One of the highest profile individuals to impact US public perception of COVID-19 narratives was US Senator Tom Cotton (R-AR). On January 30, 2020, Cotton tweeted a clip of a speech he made at a Senate committee meeting.⁷⁰ In both the clip and the tweet itself, Cotton noted that China's only biosafety lab was located in Wuhan. The senator also indicated that the lab worked with deadly pathogens, including strains of coronavirus. While Cotton introduced his tweet by saying that the origin of the virus remained unknown, the implication was that China was responsible for the outbreak. "We still don't know where coronavirus originated," he wrote. "Could have been a market, a farm, a food processing company. I would note that Wuhan has China's only biosafety level-four super laboratory that works with the world's most deadly pathogens to include, yes, coronavirus."

⁶⁹ Graphs generated by João Guilherme Bastos dos Santos/INCT.DD on behalf of the DFRLab.

⁷⁰ Tom Cotton (@SenTomCotton), "We still don't know where coronavirus originated. Could have been a market, a farm, a food processing company. I would note that Wuhan has China's only biosafety level-four super laboratory that works with the world's most deadly pathogens to include, yes, coronavirus," Twitter post, January 30, 2020, archived on February 21, 2020, at <http://archive.ph/sJdtm>.



We still don't know where coronavirus originated. Could have been a market, a farm, a food processing company.

I would note that Wuhan has China's only biosafety level-four super laboratory that works with the world's most deadly pathogens to include, yes, coronavirus.



9:55 PM · Jan 30, 2020 · [Twitter Web App](#)

2.4K Retweets and comments 3.9K Likes

Arkansas Senator Tom Cotton noted that China's only biosafety lab is located in Wuhan while speaking in a Senate committee meeting.⁷¹

Over the course of February 2020, Cotton continued to speculate on Twitter and in interviews that were amplified by alt-right US outlets and conspiracists, as well as traditional media that reported,⁷² and sometimes condemned,⁷³ his statements. This coverage of the controversy amplified the narrative even further, making it easier for other influencers to falsely accuse China of creating the virus.

After being criticized for amplifying narratives that China was at fault, Cotton took to Twitter on February 16, 2020 to qualify his remarks and lay out four hypotheses on the origins of the virus.⁷⁴

⁷¹ Cotton, "We still don't know..."

⁷² Paulina Firozi, "Tom Cotton keeps repeating a coronavirus conspiracy theory that was already debunked," *The Washington Post*, February 17, 2020, <https://www.washingtonpost.com/politics/2020/02/16/tom-cotton-coronavirus-conspiracy/>.

⁷³ Alexandra Stevenson, "Senator Tom Cotton Repeats Fringe Theory of Coronavirus Origins," *The New York Times*, February 17, 2020, <https://www.nytimes.com/2020/02/17/business/media/coronavirus-tom-cotton-china.html>.

⁷⁴ Tom Cotton (@SenTomCotton), "1. Natural (still the most likely, but almost certainly not from the Wuhan food market)," Twitter post, February 16, 2020, archived at <https://archive.is/xm2zo>.



Twitter thread in which Cotton outlines four hypotheses for the COVID-19 outbreak.⁷⁵

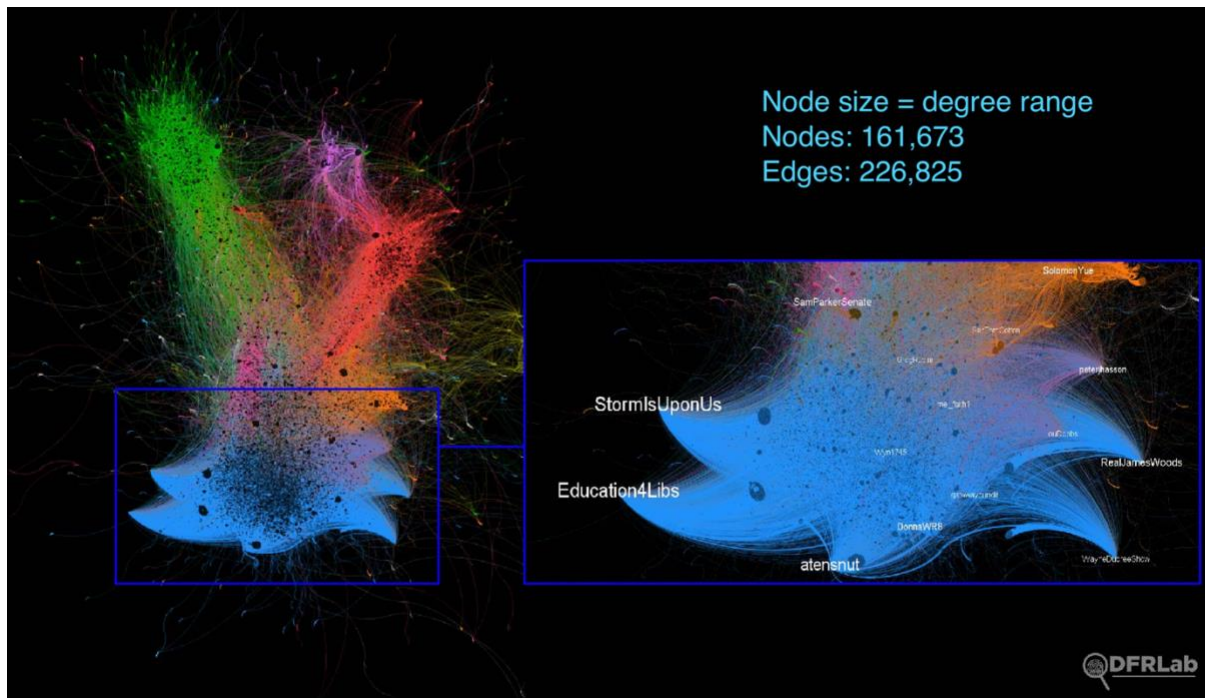
Even though Cotton claimed the natural hypothesis was “most likely” and repeatedly explained he did not have evidence to support his statements,⁷⁶ his amplification of alternative hypotheses received significant attention, with many Twitter users concentrating on false bioweapon narratives above the others.

Where Cotton’s continued speculation would not meet the strict definition of disinformation – the deliberate spread of false information – it provided source material for others to do so. Here again, information shared by prominent individuals with large public platforms and inherent clout spreading unverified information was quickly transformed through amplification by others into demonstrably false information.

The key actors spreading false narratives included QAnon and other conspiracy theory communities, right-wing websites, and several high-profile conservative influencers.

⁷⁵ *Ibid.*

⁷⁶ *Ibid.*



A network graph of Twitter accounts mentioned the bioweapon narrative in English. The blue cluster shows accounts connected to conspiracy communities or hyper-partisan right-wing influencers. Graph also shows other communities: media and media watchdogs rebutting the conspiracy (green); Indian accounts (red); accounts from Asia and the Middle East (orange).⁷⁷

A network analysis looking at a subset of approximately 400,000 tweets between January and April 2020 indicated that a cluster of supporters of QAnon and hyper-partisan right-wing influencers (in blue in the graph above) had a strong influence in the spread of the bioweapon narrative in the US. Two of the most prominent QAnon accounts that appeared in this blue cluster have been suspended by Twitter for violating the platform’s terms of service. @StormisUponUs had over 210,000 followers before its suspension. Its owner, who went by the username “Joe M”, also claimed to run a YouTube channel by the same name that had over 360,000 subscribers.⁷⁸ The other prominent QAnon account in the network, @Education4Libs, was run by Dylan Wheeler, a QAnon and Trump supporter who had over half a million followers on Twitter before his account suspension in April 2020.

Beyond these individual accounts, several partisan outlets and conspiracy blogs also helped to spread the bioweapons theory. On January 26, 2020, conservative newspaper *The Washington Times*, which has faced accusations of biased and flawed reporting,⁷⁹

⁷⁷ DFRLab-generated network map, created using Gephi.

⁷⁸ “Joe M,” YouTube channel, archived on September 2, 2020, at <https://archive.vn/Uvg8g>.

⁷⁹ Heidi Beirich and Bob Moser, “The Washington Times has history of hyped stories, shoddy reporting and failing to correct errors,” *The Intelligence Report*, Southern Poverty Law Center, August 15, 2003, <https://www.splcenter.org/fighting-hate/intelligence-report/2015/washington-times-has-history-hyped-stories-shoddy-reporting-and-failing-correct-errors>.

published an article that speculated that COVID-19 might be a Chinese bioweapon.⁸⁰ The paper later issued a correction for the article on March 25 that also included a suggestion that the disease may have leaked from the Wuhan laboratory, an early instance of that particular narrative.

Zero Hedge, originally a financial blog that has pivoted to publishing conspiracy theories and Russian propaganda,⁸¹ also had a role in the spread of the Chinese bioweapon narrative. The website started posting coronavirus-related content as early as January 2, 2020, though it initially remained relatively impartial. In fact, mentions of *Zero Hedge* in relation to the coronavirus only started to pick up after the website began publishing more controversial (i.e., conspiratorial) content. A closer look at mentions of the website on social media during the month of January 2020 showed little impact until January 21, when the website, engaging in satire, compared the biosafety lab in Wuhan to the Umbrella Corporation, a fictional corporation from the video game and film series *Resident Evil*. In the franchise, Umbrella Corp is an overarching villain, having developed and sold biological and chemical weapons under the guise of creating vaccinations.

The blog was banned from Twitter on January 31, 2020, two days after it posted an article doxxing⁸² a Chinese scientist, who the DFRLab will refrain from naming. The article, which accused the scientist of being responsible for the pandemic, was shared over 11,500 times on Twitter. It included the scientist's name, photograph, telephone number, and email address. On June 12, 2020, Twitter reactivated the @zerohedge account, citing an error in enforcing the original suspension.

Conspiracy theories – and those that promote them – played a role in the rise to prominence of Francis Boyle, one of the most mentioned experts who lent credibility to unverified and outright false bioweapon narratives. Unlike Igor Nikulin, Boyle appears to have a substantive background in the topic, as he was one of those responsible for drafting the Biological Weapons Anti-Terrorism Act of 1989, which signed into law by then-US President George H.W. Bush in 1990. Boyle has also worked as a human rights lawyer, which – combined with his left-wing views – were used by far right-wing outlets to add supposedly bipartisan credibility to the bioweapon narrative.

Calling into question that supposed credibility, however, the COVID-19 pandemic was not the first time Boyle has claimed a virus was engineered as a bioweapon. In 2014, he

⁸⁰ Bill Gertz, "Coronavirus may have originated in lab linked to China's biowarfare program," *The Washington Times*, March 25, 2020, <https://www.washingtontimes.com/news/2020/jan/26/coronavirus-link-to-china-biowarfare-program-poss/>.

⁸¹ Ellen Cranley, "Finance blog Zero Hedge was banned from Twitter for Wuhan coronavirus misinformation. It's not the first time the publication has raised eyebrows," *Business Insider*, February 1, 2020, <https://www.businessinsider.com/who-is-zero-hedge-finance-blog-that-spread-coronavirus-misinformation-2020-2>.

⁸² Meira Gebel, "What is doxxing? Here's what you need to know, including how to protect your personal information," *MSN*, November 13, 2020, <https://www.msn.com/en-us/news/technology/what-is-doxxing-heres-what-you-need-to-know-including-how-to-protect-your-personal-information/ar-BB1aZAJL>.

spoke with *InfoWars* creator and known conspiracist Alex Jones about Ebola being a genetically engineered bioweapon.⁸³ Later, in 2016, the two spoke about the Zika virus as a bioweapon.⁸⁴ In both instances, Boyle falsely claimed the viruses were created in US labs and that Microsoft founder Bill Gates and his family foundation were somehow involved.

In interviews with fringe outlets and individuals around COVID-19, including a *Geopolitics and Empire* interview⁸⁵ that was picked up by Alex Jones on February 19, 2020,⁸⁶ Boyle claimed the virus was engineered as a biological weapon and supported the claim by misinterpreting scientific papers that he referred to as “smoking gun evidences.” Boyle’s opinions on the virus appeared to change throughout the course of his interviews. For example, in January, he said *Great Game India’s* story that claimed the virus could have been developed in Canada and stolen by Chinese scientists before leaking from Wuhan was plausible, though he indicated that such a leak was not necessarily intentional.⁸⁷ Later, in March, Boyle said the disease had been created in North Carolina.⁸⁸ Additionally, Boyle was never really assertive about which country was ultimately responsible for releasing the virus, which made it possible for malicious actors with different geopolitical goals to exploit his claims.

The majority of references to Boyle occurred on Twitter, with a total of 27,482 tweets between January 1 and April 17, 2020, which is a relatively small overall amount, but was significant given the audience was predominantly conspiracy-minded and highly engaged elsewhere. The content of these original tweets primarily focused on Boyle’s assertions that the virus had been weaponized, with just under half of the tweets mentioning bioweapons, biological weapons, or biological war in some manner. Only 715 tweets mentioning Boyle also mentioned the biosafety lab or a lab leakage, while 67 contained reference to Bill Gates. Of the top 10 accounts that mentioned Boyle the most, nine were also overt Trump supporters or followers of QAnon, the wide-ranging conspiracy theory that posits, among other things, that Trump is waging a secret war against a cabal of child-eating Satanists.⁸⁹ The top account appeared to be a spam account that tweeted about Boyle while promoting an article from conspiracy health website *Mercola.com*.

⁸³ “Alex Jones interviews Professor Francis Boyle on Ebola Friday October 24th 2014 part 1 of 2,” *Infowars*, uploaded October 27, 2014, https://www.youtube.com/watch?v=QkgI-Ch1JrM&ab_channel=Kapione.

⁸⁴ “Is the Zika Virus Weaponized GMO?” *Infowars*.

⁸⁵ “Francis Boyle: Wuhan Coronavirus is an Offensive Biological Warfare Weapon,” *Geopolitics & Empire*.

⁸⁶ “Full transcript of bombshell smoking gun interview,” *Infowars*, archived February 21, 2020, at <https://archive.vn/fxYr6>.

⁸⁷ “TRANSCRIPT: Bioweapons Expert Dr. Francis Boyle On Coronavirus,” *Great Game India*, archived April 20, 2020, <https://archive.vn/zXsx0>.

⁸⁸ Peter Bianco, “Is the recent corona virus, COVID-19 a biological weapon?” *Utica Phoenix*, March 24, 2020, <https://www.uticaphoenix.net/2020/03/24/is-the-recent-corona-virus-covid-19-a-biological-weapon/>.

⁸⁹ Mike Wendling, “QAnon: What is it and where did it come from?” *BBC News*, January 6, 2021, <https://www.bbc.com/news/53498434>.

Theories within tweets about Francis Boyle

A look at prominent conspiracy theories within the 6,761 unique tweets mentioning Francis Boyle between 01/01/2020 - 17/04/2020



Chart: Tessa Knight • Source: Twitter data • [Get the data](#) • Created with [Datawrapper](#)

Volume of concurrent mentions of keywords alongside "Francis Boyle" on Twitter between January 1, 2020, and April 17, 2020.⁹⁰

The conspiracy theory ultimately appeared on conservative US cable news. On February 10, 2020, *Fox News* host Tucker Carlson asked a doctor on his show whether there was evidence that this was “not a naturally occurring virus, that it was somehow created by the Chinese government.” While the doctor answered no, the discussion raised the profile of the conspiracy. The following week, on February 19, *Fox News* featured conservative columnist Gordon Chang, who – in response to Cotton’s speculation – suggested that the novel coronavirus could have originated in the Wuhan lab and that China had the ability to manufacture biological weapons. Despite not explicitly saying the virus was a bioweapon, the narrative’s appearance on a major television outlet served to amplify it. Chang’s suggestion would not meet a strict definition of disinformation; however, it served as an inference by stating two things that are plausible or likely individually but taken together could be misleading.

Toward the end of April, as the scientific community converged on evidence that the virus was a natural occurrence and not a bioweapon,⁹¹ a different narrative strain of the theory began to circulate. On April 14, an op-ed published by *Washington Post* columnist Josh Rogin mentioned leaked US State Department cables in which US officials expressed valid concerns about safety conditions in the Wuhan biosafety lab.⁹² The cables were subsequently exploited as the basis for unverified claims that the novel coronavirus had leaked as the result of an accident at the lab.

The day after the *Washington Post* article, *Fox News* published a story titled, “Sources believe coronavirus outbreak originated in Wuhan lab as part of China’s efforts to compete with US.”⁹³ *Fox News* claimed “multiple sources” had stated the virus likely originated in

⁹⁰ DFRLab-generated chart, made using data from Twitter and visualized using Datawrapper.

⁹¹ Bob Hunt, Justin Gmoser, and Victoria Barranco, “How we know the COVID-19 coronavirus wasn’t made in a lab,” *Business Insider*, June 12, 2020, <https://www.businessinsider.com/coronavirus-lab-manmade-myth-debunked-2020-6>.

⁹² Josh Rogin, “State Department cables warned of safety issues at Wuhan lab studying bat coronaviruses,” *The Washington Post*, April 14, 2020, <https://www.washingtonpost.com/opinions/2020/04/14/state-department-cables-warned-safety-issues-wuhan-lab-studying-bat-coronaviruses/>.

⁹³ Brett Baier and Gregg Re, “Sources believe coronavirus outbreak originated in Wuhan lab as part of China’s efforts to compete with US,” *Fox News*, April 15, 2020, <https://www.foxnews.com/politics/coronavirus-wuhan-lab-china-compete-us-sources>.

a lab, although not as a biological weapon, claiming instead that patient zero worked at the laboratory and that the virus had jumped from bats to humans. The story, which also claimed WHO was complicit in helping China hide evidence, garnered over 1.1 million Facebook engagements and more than 61,000 Twitter shares, according to BuzzSumo data.

The unverified theory that the virus came from the Wuhan Institute of Virology continued to proliferate, ultimately being amplified by then-US President Donald Trump. During an April 20, 2020 White House press briefing, Trump stated he had a “high degree of confidence” that the Chinese lab was the origin of the pandemic.⁹⁴ When asked to clarify what evidence gave him such confidence that the virus originated in the Wuhan Institute of Virology, Trump stated that he was not allowed to reveal that information.

The same day President Trump claimed he was confident the virus came from a Chinese laboratory, US Secretary of State Mike Pompeo gave a less conclusive answer in a radio interview, saying that the US government did not know where it originated.⁹⁵ Three days later, however, Pompeo changed tack, stating on the *ABC News* program “This Week” that there was “enormous evidence” that the virus originated in a laboratory.⁹⁶ Without providing evidence, he further embellished the claim, saying “the best experts so far seem to think it was manmade.”

In July 2020, however, *The Washington Post* followed up its earlier story after the State Department released the cable. Its contents - the alleged evidence on which Trump and Pompeo based their claims – neither confirmed nor denied that the Wuhan lab was the source of the virus.⁹⁷ Additionally, scientific evidence has shown that genetic sequences of bats that were being studied in the Wuhan lab did not match those of the novel coronavirus, adding further doubts to claims it came from the lab.⁹⁸ On February 9, 2021,

⁹⁴ “Trump says he is confident Covid-19 came from Wuhan lab,” *Financial Times*, <https://www.ft.com/content/84935e17-b50e-4a66-9c37-e2799365b783>.

⁹⁵ “Secretary Michael R. Pompeo With Simon Conway of Newsradio 1040,” state.gov, archived on May 4, 2020, <https://archive.is/HyITu>.

⁹⁶ Julian Borger, “Mike Pompeo: ‘enormous evidence’ coronavirus came from Chinese lab,” *The Guardian*, May 3, 2020, <https://www.theguardian.com/world/2020/may/03/mike-pompeo-donald-trump-coronavirus-chinese-laboratory>.

⁹⁷ John Hudson and Nate Jones, “State Department releases cable that launched claims that coronavirus escaped from Chinese lab,” *The Washington Post*, July 17, 2020, https://www.washingtonpost.com/national-security/state-department-releases-cable-that-launched-claims-that-coronavirus-escaped-from-chinese-lab/2020/07/17/63deae58-c861-11ea-a9d3-74640f25b953_story.html.

⁹⁸ Polly Hayes, “Here’s how scientists know the coronavirus came from bats and wasn’t made in a lab,” *The Conversation*, July 13, 2020, <https://theconversation.com/heres-how-scientists-know-the-coronavirus-came-from-bats-and-wasnt-made-in-a-lab-141850>.

after a visit to Wuhan, WHO experts said the virus jumped from an animal to humans and it was “unlikely” that it had leaked from the Wuhan lab.⁹⁹

China

During the early days of the pandemic, China followed its philosophy of discourse power, projecting itself as competent, beneficent, and decisive.¹⁰⁰ Discourse power is two-pronged: first, before all else, promote pro-China messaging globally as a means of instilling positive sentiment toward the country and its political system. This includes downplaying, negating, or avoiding any narratives perceived as unhelpful or unfriendly. Second, when that approach is not possible or ineffective, pushing messaging that diminishes geopolitical rivals as a means of softening positive perceptions toward them.

This approach was notable during the early days of the coronavirus outbreak. China engaged in significant efforts to suppress early reports of the virus, from censoring coverage to arresting whistleblowers. Initial Chinese media coverage of the virus focused on the positives of Beijing’s response,¹⁰¹ and refrained from displacing the blame to the extent that Chinese reporting confirmed the Wuhan Seafood Market as the origin of the outbreak.¹⁰² Over time, though, it assumed a more aggressive rhetorical posture, particularly after the United States repeatedly accused it of being responsible for the crisis.

China’s tone first shifted toward casting doubt on the origin of the virus, as international media widely reported on China as the source of the disease. In late January 2020, Chinese state media began to question the initial research around the virus, including its origins.¹⁰³ By early February, *The Global Times*, a Chinese state-controlled, English-language newspaper under *The People’s Daily*, warned the US that blaming China for the outbreak would backfire.¹⁰⁴ The piece specifically referenced the January 26 *Washington Times* article.

⁹⁹ “WHO Team: Coronavirus Unlikely to Have Leaked From China Lab,” *Associated Press*, February 9, 2021, <https://www.usnews.com/news/world/articles/2021-02-09/who-says-coronavirus-unlikely-to-have-leaked-from-china-lab>.

¹⁰⁰ “Countering Chinese disinformation reports,” DFRLab, December 2020, <https://www.atlanticcouncil.org/in-depth-research-reports/dfrlab-china-reports/>.

¹⁰¹ “SARS hero’ follows leads on illness,” *China Daily*, January 23, 2020, <http://en.people.cn/n3/2020/0123/c90000-9651455.html>; “Wuhan government boosts measures to curb spread of new virus,” *CGTN*, January 21, 2020, <https://news.cgtn.com/news/2020-01-21/Wuhan-boosts-measures-to-curb-new-coronavirus-spread-NqW6FZde48/index.html>.

¹⁰² Pan Zhaoyi, “Experts confirm Wuhan seafood market was source of novel coronavirus,” *CGTN*, January 27, 2020, <https://news.cgtn.com/news/2020-01-27/Experts-confirm-Wuhan-seafood-market-was-source-of-novel-coronavirus--NAHPUsPgA/index.html>.

¹⁰³ Alok Gupta, “Conflicting studies.”

¹⁰⁴ Yang Sheng and Zhao Yusha, “Using virus to smear China will ‘backfire,’” *Global Times*, February 3, 2020, <https://www.globaltimes.cn/content/1178284.shtml>.

After Senator Cotton and other high-profile political influencers (including former Trump adviser Stephen K. Bannon) amplified these claims,¹⁰⁵ Chinese scientists publicly refuted the bioweapon narrative.¹⁰⁶ *The Global Times* reported that the Wuhan Institute of Virology, the laboratory at the center of the claims, had disputed the origins of the virus and criticized how the West was “weaponizing rumors” to attack China.¹⁰⁷ Again, this escalation and narrative back-and-forth allowed China to continue to deflect from other relevant information like data about the initial spread of the virus, which potentially made the pandemic spread wider and faster.

As narratives blaming China for the virus proliferated, the country returned the volley and claimed the US, and not China, was the original source of the pandemic. The third week of February 2020 was particularly eventful: it was around this time that Chinese media dipped into, and lent credibility to, a conspiracy that would later form the basis of Zhao Lijian’s tweets as detailed above.

On February 22, *People’s Daily* reported that Chinese social media was abuzz with speculation after Japan’s *Asahi TV* aired a clip claiming the CDC had admitted that some 10,000 US influenza deaths might have been related to COVID-19.¹⁰⁸ Although the CDC attributed these claims to an ambiguous translation, *People’s Daily* jumped on the report. The article specifically highlighted a questionable claim by an unidentified social media user blaming US participants at the October 2019 Military World Games in Wuhan for the virus. That same day, *Global Times* repeated this story, and even though the publication sought a comment from the CDC, it still juxtaposed their response with the Military Games theory, giving the same credibility to both despite the latter being an unsupported conspiracy originating from an unknown source.¹⁰⁹

The next day, *People’s Daily* ran follow-up story headlined “Japanese TV report sparks speculations in China that COVID-19 may have originated in the US.”¹¹⁰ The article reiterated the social media speculation around the *Asahi TV* report but quoted an expert

¹⁰⁵ Alexandra Stevenson, “Senator Tom Cotton Repeats Fringe Theory of Coronavirus Origins,” *The New York Times*, February 17, 2020, <https://www.nytimes.com/2020/02/17/business/media/coronavirus-tom-cotton-china.html>.

¹⁰⁶ Simone McCarthy, “Coronavirus: Scientists hit back at rumours humans engineered deadly contagion,” *South China Morning Post*, February 18, 2020, <https://www.scmp.com/news/china/society/article/3051167/scientists-hit-back-rumours-engineered-coronavirus>.

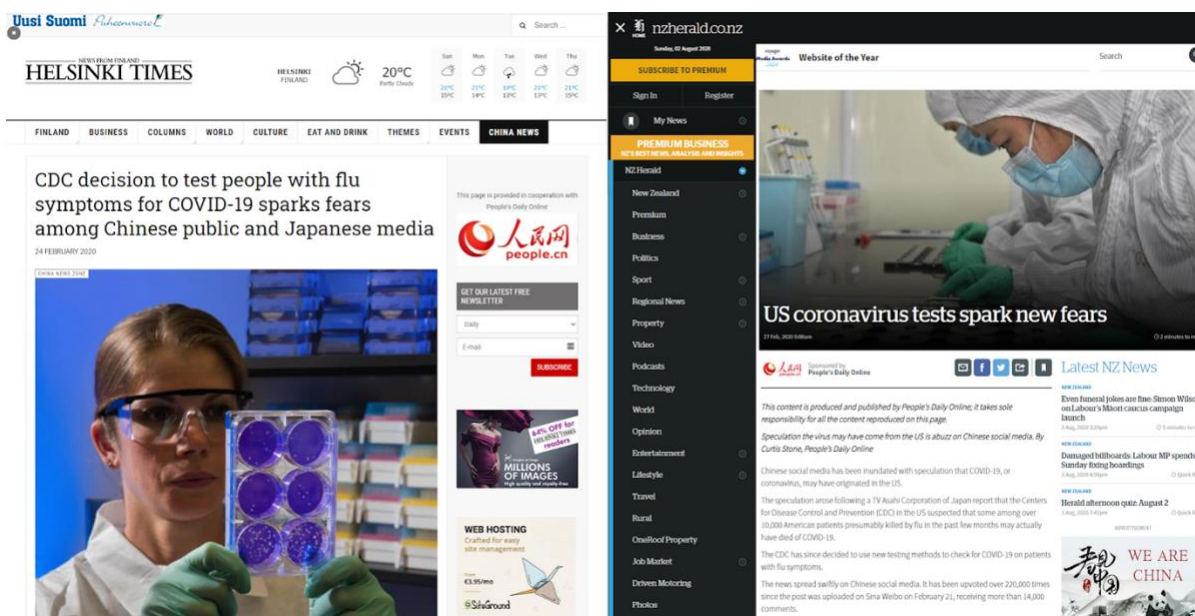
¹⁰⁷ Shi Tian, “Some in West weaponize rumors to attack China,” *Global Times*, February 18, 2020, <https://www.globaltimes.cn/content/1180041.shtml>.

¹⁰⁸ “CDC decision to test people with flu symptoms for COVID-19 sparks fears among Chinese public and Japanese media,” *People’s Daily*, February 22, 2020, <http://en.people.cn/n3/2020/0222/c90000-9660792.html>.

¹⁰⁹ Hu Yuwei and Zhang Han, “US CDC refutes TV Asahi story, claiming no evidence shows flu deaths in US were caused by coronavirus,” *Global Times*, February 22, 2020, <https://www.globaltimes.cn/content/1180415.shtml>.

¹¹⁰ “Japanese TV report sparks speculations in China that COVID-19 may have originated in US,” *People’s Daily*, February 23, 2020, <http://en.people.cn/n3/2020/0223/c90000-9661026.html>.

who identified the ambiguous translation of the CDC's remarks that sparked the discussion. Despite this expert's clarification, the same story was syndicated internationally a few days later. Finland's *Helsinki Times* published the piece on February 24,¹¹¹ and the *New Zealand Herald* followed suit two days later.¹¹² Even though the articles were published after the CDC provided additional comment to the *Global Times*, both news outlets indicated that the CDC had yet to comment. The *New Zealand Herald* piece has since been removed.



Screengrabs from the *Helsinki Times* (left) and the *New Zealand Herald* (right) showing articles syndicated from *People's Daily*.¹¹³

In late February 2020, Chinese media published several articles that cast similar doubts about the origin of the virus, including *Global Times*, *CGTN*, and *People's Daily*.¹¹⁴ In contrast to the previous positive coverage about China's response to the virus, they

¹¹¹ "CDC decision to test people with flu symptoms for COVID-19 sparks fears among Chinese public and Japanese media," *Helsinki Times*, February 24, 2020, <https://www.helsinkitimes.fi/china-news/17360-cdc-decision-to-test-people-with-flu-symptoms-for-covid-19-sparks-fears-among-chinese-public-and-japanese-media.html>, archived at <https://archive.is/lrfji>.

¹¹² "US coronavirus tests spark new fears," *New Zealand Herald*, February 27, 2020, archived on May 21, 2020, at <https://archive.is/MAO3J>.

¹¹³ "CDC decision to test people," *Helsinki Times*; "US coronavirus tests spark new fears," *New Zealand Herald*.

¹¹⁴ "Origin of novel coronavirus still hangs in the air," *Global Times*, February 29, 2020, <https://www.globaltimes.cn/content/1181122.shtml>; Wang Qi and Xu Keyue, "COVID-19 'may not originate in China,'" *Global Times*, February 28, 2020, <https://www.globaltimes.cn/content/1181005.shtml>; "Social media fuels speculation coronavirus originated from US," *CGTN*, February 27, 2020, <https://news.cgtn.com/news/2020-02-27/Social-media-fuels-speculation-coronavirus-originated-from-U-S-Oq6IXON2Jq/index.html>; "US Youtuber questions CDC transparency in COVID-19 numbers, citing leaked message," *People's Daily*, February 24, 2020, <http://en.people.cn/n3/2020/0224/c90000-9661463.html>.

provided negative coverage on the US response, exemplifying discourse power in action.¹¹⁵

Over the course of the timespan analyzed in this report, Chinese MFA spokesman Zhao Lijian arose as another high-profile government official pushing the idea that the disease was potentially a bioweapon. Faced with an increasing volume of claims implicating China, Zhao became the public face of the Chinese government in rebutting the blame being cast by foreign governments and media outlets, especially those in the United States.

Tensions escalated to a diplomatic level on March 5, when *Fox News's* Jesse Watters demanded an apology from China for the virus in early March.¹¹⁶ Zhao responded in a press briefing by noting that the origin of the virus was still undetermined,¹¹⁷ and that regardless of its origin, all countries were victims of it. Zhao's diplomatic response was widely covered by *CGTN*, *People's Daily*, and *Xinhua*.¹¹⁸

Within a week, however, Zhao pivoted to a more confrontational position, openly speculating that the US could have originated the outbreak. On March 12 and 13, Zhao tweeted a series of links to two conspiratorial articles¹¹⁹ – both of which pinned the origins of the virus in the United States – published by *Global Research Canada*, a website run by Montreal-based think tank the Centre for Research on Globalization that has a history

¹¹⁵ "US public demand transparency after CDC decision to stop reporting test numbers triggers backlash," *People's Daily*, March 5, 2020, <http://en.people.cn/n3/2020/0305/c90000-9665281.html>.

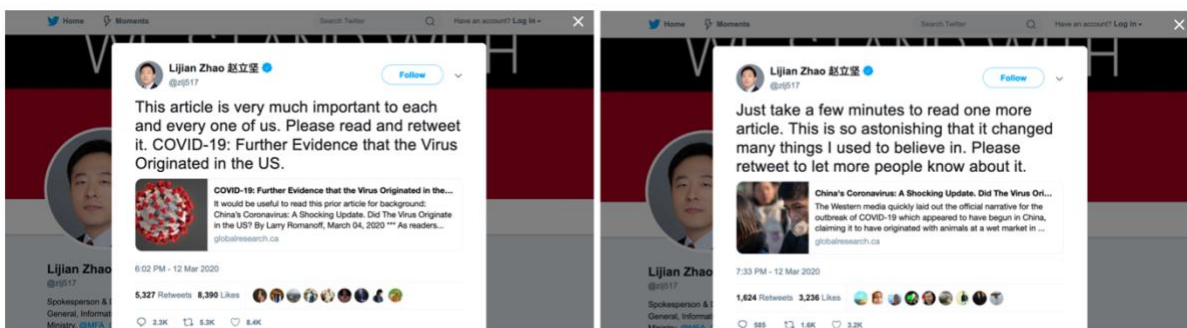
¹¹⁶ Victor Garcia, "Jesse Watters demands apology from China over coronavirus outbreak," March 2, 2020, <https://www.foxnews.com/media/jesse-watters-demands-apology-china-coronavirus>.

¹¹⁷ "Spokesperson refutes US Fox News host demanding apology from China for coronavirus outbreak," *Xinhua*, March 5, 2020, archived at https://web.archive.org/web/20200520190809/http://www.xinhuanet.com/english/2020-03/05/c_138847088.htm.

¹¹⁸ "The absurd apology demanded by US TV host from China for COVID-19," *CGTN*, March 6, 2020, <https://news.cgtn.com/news/2020-03-06/The-absurd-apology-demanded-by-U-S-TV-host-from-China-for-COVID-19--ODdKUtrH1u/index.html>; Xu Yicong, "What is hiding behind American host's demand for apology from China?" *People's Daily*, March 7, 2020, <http://en.people.cn/n3/2020/0307/c90000-9665720.html>; "Spokesperson refutes US Fox News host," *Xinhua*.

¹¹⁹ Zhao Lijian, "This article is very much important to each and every one of us. Please read and retweet it. COVID-19: Further Evidence that the Virus Originated in the US," Twitter post, March 12, 2020, archived at <http://archive.today/2020.03.13-114631/https://twitter.com/zlj517/status/1238269193427906560>; Zhao Lijian, "Just take a few minutes to read one more article. This is so astonishing that it changed many things I used to believe in. Please retweet to let more people know about it," Twitter post, March 12, 2020, archived at <https://archive.vn/2020.03.13-114149/https://twitter.com/zlj517/status/1238292025817968640#selection-3075.1-3075.171>. The tweets linked to two articles, respectively: Larry Romanoff, "COVID-19: Further Evidence that the Virus Originated in the US," *Global Research*, March 11, 2020, archived on April 14, 2020, at <https://web.archive.org/web/20200414101702/https://www.globalresearch.ca/covid-19-further-evidence-virus-originated-us/5706078>; Larry Romanoff, "China's Coronavirus: A Shocking Update. Did The Virus Originate in the US?" *Global Research*, March 4, 2020, archived on April 15, 2020, at <https://web.archive.org/web/20200415050210/https://www.globalresearch.ca/china-coronavirus-shocking-update/5705196>.

of pushing conspiracy theories and propaganda.¹²⁰ While the tweets did not outrightly state whether Zhao believed or supported the idea, the implication was nevertheless one of apparent support.



Zhao Lijian tweeted two articles published by *Global Research Canada*, which is known to push conspiracies and propaganda, in mid-March 2020.¹²¹

Zhao's tweets were a part of a Chinese strategy known as "Wolf Warrior diplomacy,"¹²² which involves proactive posting to Western social media by embassy and foreign ministry officials. Despite Twitter being blocked in China, the number of Chinese diplomatic accounts more than tripled on the platform between May 2019 and May 2020, from 40 to 135, and the output doubled and became more aggressive and conspiratorial, according to a report from the Alliance for Securing Democracy.¹²³

Zhao further targeted the US in a second pair of tweets. The first focused on the CDC Director Robert Redfield, while the second blamed the US Army for the virus. "CDC Director Robert Redfield admitted some Americans who seemingly died from influenza were tested positive for novel #coronavirus in the posthumous diagnosis, during the House Oversight Committee Wednesday," Zhao wrote.¹²⁴ He then followed it with an even more pointed assertion: "CDC was caught on the spot. When did patient zero begin in US? How many people are infected? What are the names of the hospitals? It might be

¹²⁰ Campbell Clark and Marck MacKinnon, "NATO research centre sets sights on Canadian website over pro-Russia disinformation," *The Globe and Mail*, November 17, 2017, <https://www.theglobeandmail.com/news/world/nato-research-centre-sets-sights-on-canadian-website-over-pro-russian-disinformation/article37015521/>.

¹²¹ Zhao, "This article is very much important;" Zhao, "Just take a few minutes to read one more article."

¹²² Ben Wescott and Steven Jiang, "China is embracing a new brand of foreign policy. Here's what wolf warrior diplomacy means," *CNN*, May 29, 2020, <https://edition.cnn.com/2020/05/28/asia/china-wolf-warrior-diplomacy-intl-hnk/index.html>.

¹²³ Clint Watts, "Triad of Disinformation: How Russia, Iran, & China Ally in a Messaging War against America," Alliance for Securing Democracy, May 15, 2020, <https://securingdemocracy.gmfus.org/triad-of-disinformation-how-russia-iran-china-ally-in-a-messaging-war-against-america/>.

¹²⁴ Zhao Lijian, "1/2 CDC Director Robert Redfield admitted some Americans who seemingly died from influenza were tested positive for novel #coronavirus in the posthumous diagnosis, during the House Oversight Committee Wednesday. #COVID19," Twitter post, March 12, 2020, archived at https://web.archive.org/web/20200312170922if_/https://twitter.com/zlj517/status/1238110160884625409.

US army who brought the epidemic to Wuhan. Be transparent! Make public your data! US owe us an explanation!"¹²⁵

The articles Zhao linked cited, among other things, the 2019 closure of Ft. Detrick for biohazard safety concerns and the supposedly poor performance of US soldiers during the October 2019 Military World Games to insinuate a US provenance for the virus.¹²⁶ This was complemented by Chinese scientific papers that cast doubt on the Wuhan food market as its point of origin, though none of these papers directly blamed the US as ground zero. They also brought in a report from Japan's *Asahi TV* regarding the CDC's alleged attribution of deaths previously blamed on influenza to COVID-19.



*Zhao Lijian's tweets mentioning CDC's director Robert Redfield to cast doubt on China as origin of the virus.*¹²⁷

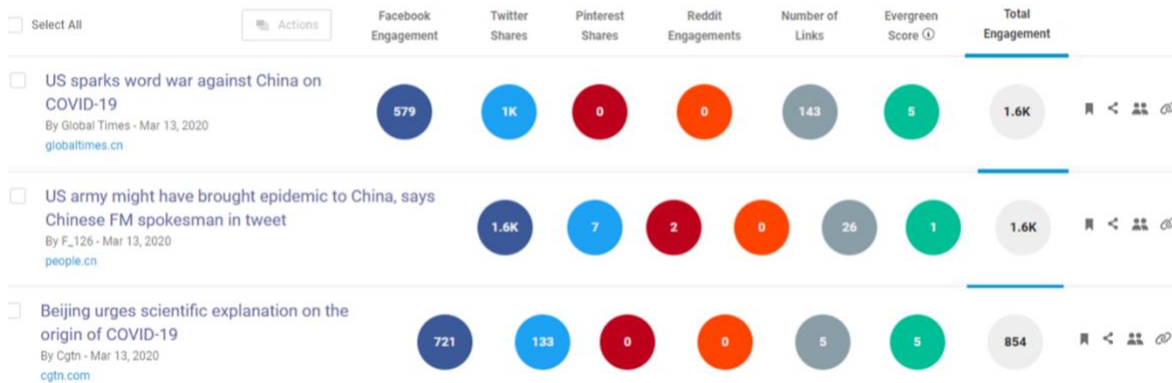
¹²⁵ Zhao Lijian, "2/2 CDC was caught on the spot. When did patient zero begin in US? How many people are infected? What are the names of the hospitals? It might be US army who brought the epidemic to Wuhan. Be transparent! Make public your data! US owe us an explanation!" Twitter post, March 12, 2020, archived at <https://archive.is/tantS>.

¹²⁶ Denise Grady, "Deadly Germ Research Is Shut Down at Army Lab Over Safety Concerns," *The New York Times*, August 5, 2019, <https://www.nytimes.com/2019/08/05/health/germs-fort-detrick-biohazard.html>.

¹²⁷ Zhao, "2/2 CDC was caught on the spot;" Zhao Lijian, "2/2 美国疾控中心主任被抓了个现行。零号病人是什么时候在美国出现的？有多少人被感染？医院的名字是什么？可能是美军把疫情带到了武汉。美国要

As of February 13, 2021, Zhao’s March 12 and 13, 2020, tweets targeting the United States had accumulated nearly 47,000 retweets and quote tweets, referenced in at least 54 languages, and favorited more than 82,000 times. Zhao’s tweets were also amplified by at least 30 different Chinese diplomatic and state-run accounts. Additionally, they had an enormous impact on the domestic Chinese social media platform Weibo, with popular hashtags referencing Zhao’s tweets being viewed by Weibo users more than 300 million times.¹²⁸

Though Twitter is banned in China, posts to the platform can nevertheless make their way to the Chinese public when picked up by Chinese state-run news outlets. For example, Zhao’s tweets were reported on by *CGTN*, *People’s Daily*, and *Global Times*,¹²⁹ though the English-language articles saw significantly less engagement than the original tweets.



BuzzSumo readout showing engagement with Chinese state-run media articles that reported on Zhao’s tweets, among other things.¹³⁰

透明！要公开数据！美国欠我们一个解释！” Twitter post, March 12, 2020, archived at <https://web.archive.org/web/20210211230244/https://twitter.com/zlj517/status/1238113459234934785>; Zhao, “1/2 CDC Director Robert Redfield admitted;” Zhao Lijian, “1/2 美国疾病控制与预防中心(CDC)主任罗伯特·雷德菲尔德(Robert Redfield)周三在众议院监督委员会承认，一些似乎死于流感的美国人死后的诊断中被检测出新型#冠状病毒呈阳性。#COVID19,” Twitter post, March 12, 2020, archived at <https://archive.vn/ZRxMF>.”

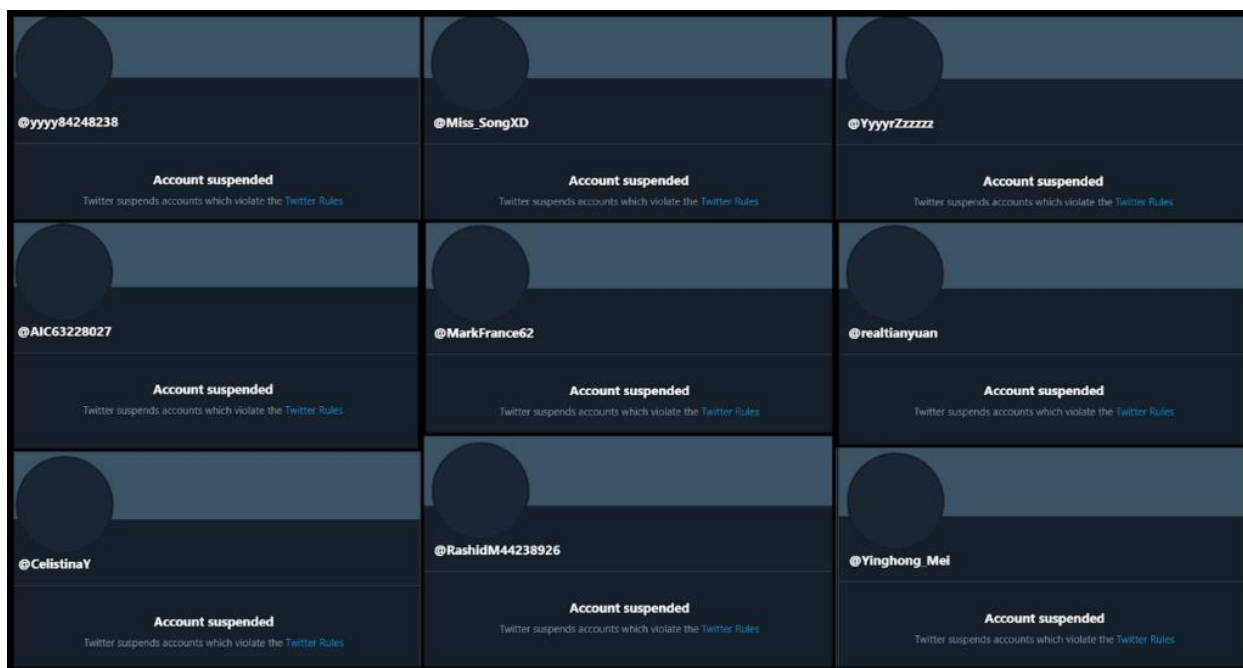
¹²⁸ “#赵立坚连发五条推文质问美国#” (“#Zhao Lijian sends five tweets to question the United States#”), Weibo Topic Page, accessed on February 13, 2021, [https://s.weibo.com/hot?q=%23%E8%B5%B5%E7%AB%8B%E5%9D%9A%E8%BF%9E%E5%8F%91%E4%BA%9\[... \]E%8E%E5%9B%BD%23&xsort=hot&suball=1&tw=hotweibo&Refer=weibo_hot](https://s.weibo.com/hot?q=%23%E8%B5%B5%E7%AB%8B%E5%9D%9A%E8%BF%9E%E5%8F%91%E4%BA%9[...]E%8E%E5%9B%BD%23&xsort=hot&suball=1&tw=hotweibo&Refer=weibo_hot), archived at <https://archive.is/Ak0Vi>.

¹²⁹ “Beijing urges scientific explanation on the origin of COVID-19,” *CGTN*, March 13, 2020, <https://news.cgtn.com/news/2020-03-13/China-accuses-U-S-of-lack-of-transparency-on-epidemic-situation-OOZyHWdJio/index.html>; “US army might have brought epidemic to China, says Chinese FM spokesman in tweet,” *People’s Daily*, March 13, 2020, <http://en.people.cn/n3/2020/0313/c90000-9668143.html>; “US sparks word war against China on COVID-19,” *Global Times*, March 14, 2020, <https://www.globaltimes.cn/content/1182511.shtml>.

¹³⁰ DFRLab-generated query using BuzzSumo.

Separately, another way to encourage a narrative to gain broader traction is to boost engagement inauthentically. To investigate whether any of the tens of thousands of engagements with Zhao’s tweets between March 10 and April 27, 2020, could be attributed to suspicious coordinated activity, the DFRLab analyzed the data for accounts that interacted with multiple tweets from Zhao.

A tiny cluster of 13 accounts (0.02 percent of the total) that included Zhao himself engaged with all 11 of Zhao’s tweets and represented 143 interactions (or 0.16 percent of the total interactions). A review of these accounts revealed they used fictitious locations and engaged in behavior promoting Chinese interests, both potential indicators of inauthentic behavior. A larger sample of 137 accounts (0.2 percent of the total) interacted with at least eight of Zhao’s tweets for a total of 1,096 (1.28 percent) interactions. At the time of publication, 26 accounts (18.9 percent) of these accounts have either been suspended, deleted, or changed their user handle.

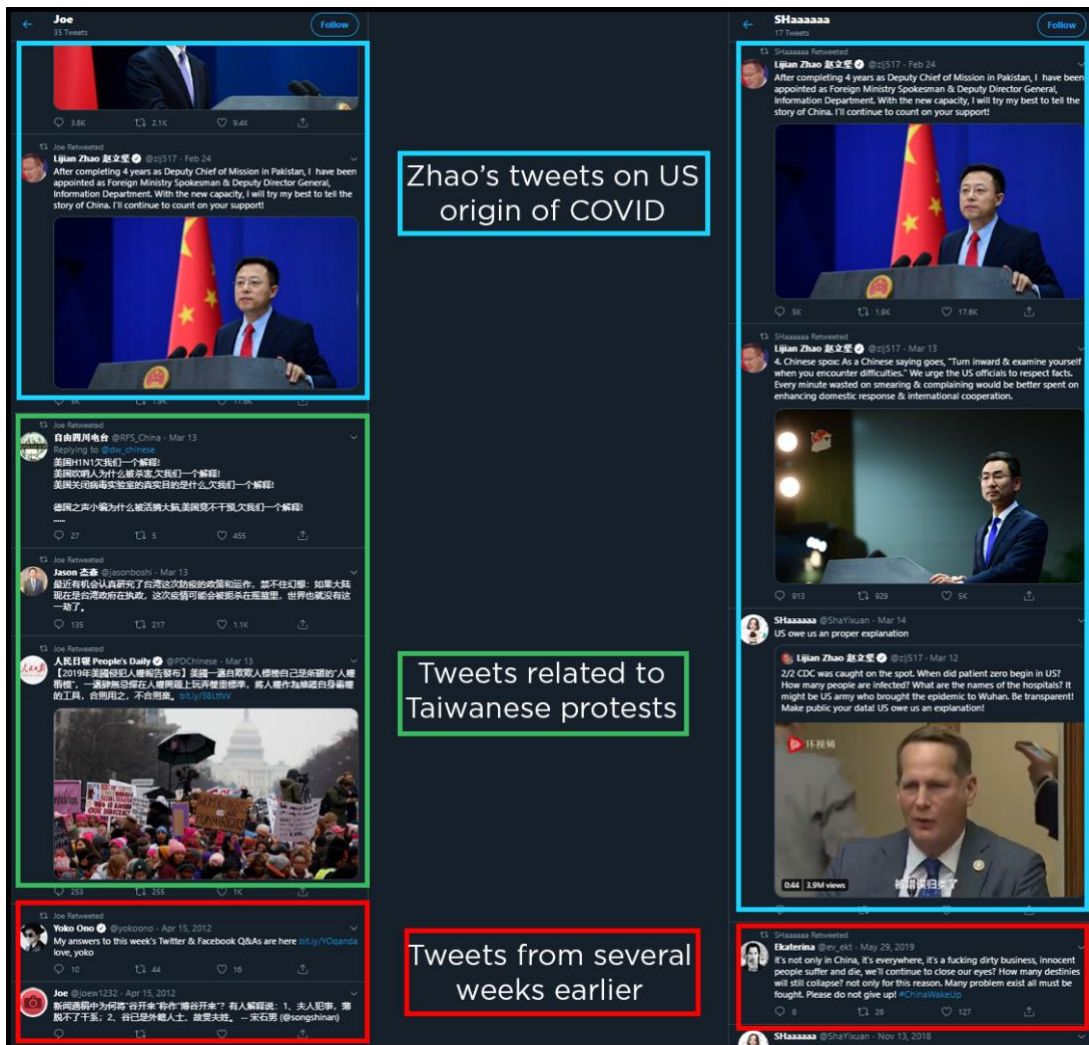


Almost 19 percent of the Twitter accounts that engaged with at least eight of Zhao’s tweets have been suspended at the time of the analysis.¹³¹

The remaining 111 accounts were investigated manually to determine whether the accounts had any suspicious characteristics. While some appeared to be legitimate pro-Chinese influencers or businessmen, several accounts presented suspicious characteristics.

Other signs of inauthentic behavior were found in the accounts that amplified Zhao’s tweets. Some accounts had been dormant for weeks or even months before suddenly interacting with Zhao’s tweets of March 12 and 13.

¹³¹ Screenshots of suspended Twitter accounts taken by the DFRLab.



A comparison of Twitter accounts @Joew1232 (left) and @ShaYixuan (right) show how both accounts returned from dormancy to tweet on pro-China issues, including Zhao's tweets.¹³²

Others had never tweeted until they amplified Zhao's tweets, although our analysis cannot determine whether they were created specifically for this purpose, since their creation dates varied significantly.

¹³² DFRLab-captured and annotated screencaps of posts from Twitter accounts @Joew1232 and @ShaYixuan.

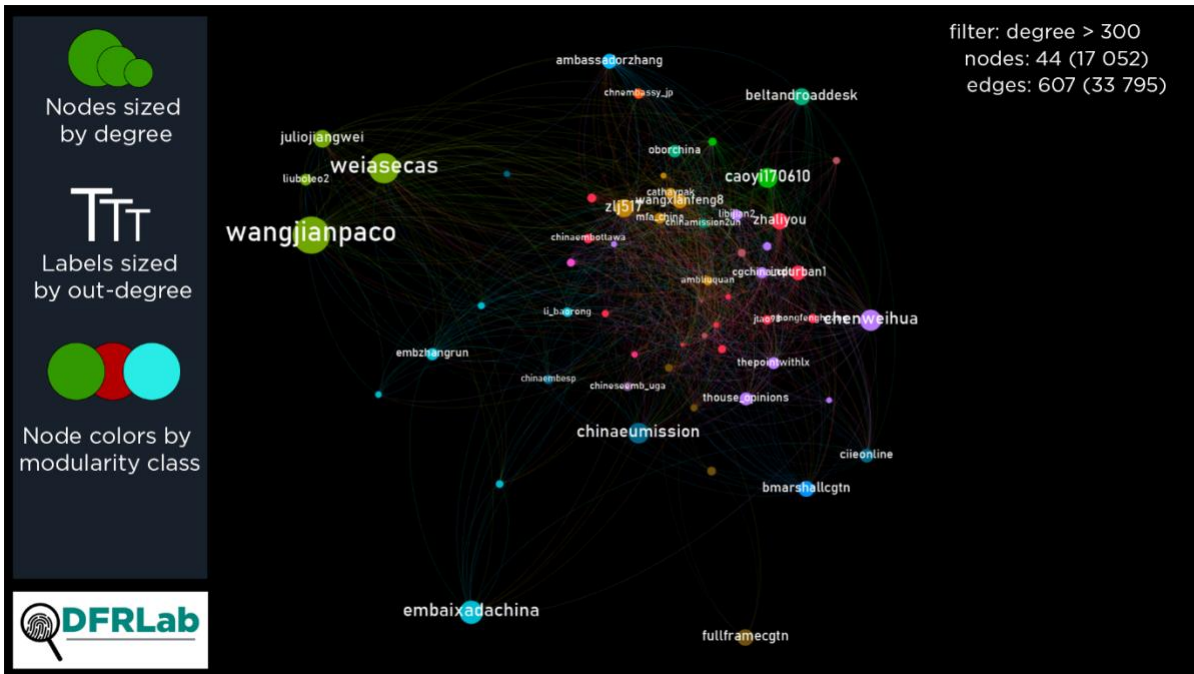


Examples of four of the accounts whose first actions on Twitter entailed retweeting Zhao's tweets.¹³³

Lastly, some accounts seemed to deviate from their typical content, switching from posting content related to anime characters or K-Pop stars to the politically charged tweets by Zhao – a common tactic deployed to spread disinformation is creating accounts that post about apolitical topics to build an audience of similarly interested followers before inculcating the normal feed with political topics.

Although there appeared to be a disjointed attempt at inauthentic amplification, these attempts comprise a small minority of either the conversation around Zhao's barrage of tweets, or generally. As the below network graph highlights, most of the interactions with Chinese diplomatic and state-adjacent media accounts did not originate from bot-like or inauthentic activity, but from China's global diplomatic corps, state-adjacent media and their editorial staff.

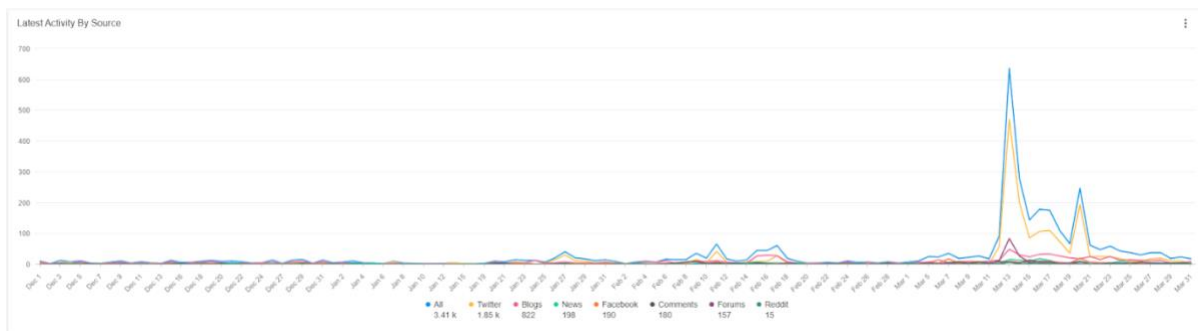
¹³³ DFRLab-captured series of retweets of Zhao Lijian's account by the Twitter accounts, left to right, @LM36384276, @Cici59356498, @molly23682033, and @yXWw5B9D65eEnjM. @ LM36384276's account has now been made private.



A network graph showing the accounts most active in the Chinese diplomatic network. Key amplifiers were the Chinese diplomatic corps and Chinese state media.¹³⁴

There was also little evidence that would allow for an attribution as to who operated these accounts. The nature of the accounts was also fragmented in a way that undermined any hypothesis of a large-scale coordinated effort to amplify Zhao's messaging.

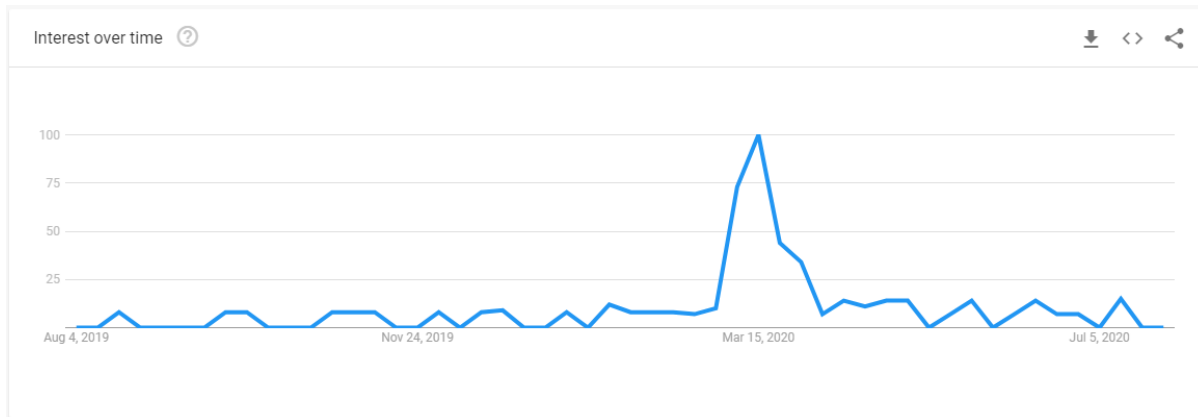
Zhao Lijian's tweets had a measurable impact. Searches on social media listening tool Meltwater Explore revealed a significant spike in mentions of Larry Romanoff, the author of the articles Zhao tweeted, following Zhao's March 12 and 13 tweets. A similar spike could be seen using Google's trend analyzer, which showed search queries for "Larry Romanoff" spiked around the mid-March timeframe.



Analyses using Meltwater Explore reflecting similar spikes in mentions of "Larry Romanoff" between December 1, 2019, and March 31, 2020.¹³⁵

¹³⁴ DFRLab-generated network map, created using Gephi.

¹³⁵ DFRLab-generated graph using Meltwater Explore.



Analysis using Google Trends reflecting similar spikes in mentions of "Larry Romanoff" between December 1, 2019, and March 31, 2020.¹³⁶

On Chinese social media, Zhao's tweets sparked a string of reactions. One Weibo post, for example, was read more than 100,000 times and shared more than 13,000 times;¹³⁷ it amplified Zhao's tweets and drew on Russian conspiracy theories about the virus as well. Zhao's position that the United States was the source of the virus was justified using the earlier claims by Igor Nikulin and other conspiracists. This completed the circle: narratives amplified by US outlets sparked the war of words between the United States and China, and different conspiracies by US authors were used to justify China's diplomatic pushback against the claims.

Iran

In 2020, Iran did not veer significantly from its usual playbook deployed during prior disinformation campaigns, both domestically and internationally. The Iranian regime's central concern is maintaining the country's internal stability, which often takes the form of anti-Western – and anti-US in particular – messaging.¹³⁸ The country has a sophisticated information strategy with two complementary goals: domestically, it seeks to entrench anti-Western sentiment in its own citizens in order to bolster the regime's stability; internationally, lightly mirroring China's discourse power approach, the country undertakes both overt and covert operations that can be understood as a continuation of the country's public diplomacy effort by conveying – and hopefully achieving some degree of acceptance of – the Iranian regime's perspective to the world.¹³⁹

¹³⁶ DFRLab-generated graph using Google Trends.

¹³⁷ 补刀客, "病毒是美军带到武汉的? 先看看俄罗斯爆出的猛料" ("Virus was brought by the US Army to Wuhan? Check out this story by Russia"), WeChat Official Account Blogpost, March 13, 2020, <https://mp.weixin.qq.com/s/fRM2y8m7iUXDC8xYU0zWKg>, archived at <https://archive.is/shDQ6>.

¹³⁸ Emerson T. Brooking and Suzanne Kianpour, "Iranian digital influence efforts: Guerilla broadcasting for the twenty-first century," Atlantic Council, February 11, 2020, <https://www.atlanticcouncil.org/in-depth-research-reports/report/iranian-digital-influence-efforts-guerilla-broadcasting-for-the-twenty-first-century/>.

¹³⁹ *Ibid.*

Domestically, the regime maintains a complete ban on Western social media platforms such as Facebook and Twitter and strict control over the media. Principal among its domestic media operations is the Islamic Republic of Iran Broadcasting (IRIB), Iran's propaganda broadcasting agency. Sometimes, however, the regime struggles to contain its narratives, leading to public unrest. Prior to the pandemic's arrival in the country, for instance, the country was already tense because of a hike to its gasoline tax.¹⁴⁰ The unrest was further exacerbated by the US assassination of Qasem Soleimani, the commander of the Islamic Revolutionary Guard Corps (IRGC) Quds Force,¹⁴¹ and Iran's subsequent accidental downing of a Ukrainian civilian flight with many Iranian passengers after takeoff from Iran.¹⁴² The spread of COVID-19 in the country, however, provided an opportunity to reset the conversation with yet another anti-US narrative, as a means of distracting attention away from the gasoline tax hike and the assassination of Soleimani.

Internationally, the regime's information infrastructure also went to work spreading anti-US narratives. IRIB operates 30 radio channels and nine television networks in different countries. In addition to these overt vectors, Iran also runs information operations that use sockpuppet accounts and online personas on Western platforms such as Facebook, Twitter, Instagram, and Reddit. Websites that do not disclose their connection to the Iranian government are also used to republish Iranian state media content, essentially "laundering" it in the process.

In contrast to previous instances, this time Tehran expanded the scope and scale of its efforts. The main consequence was that the pandemic was treated as a security crisis, rather than a health one. One of the main sources used by Iranian press to push the bioweapon narrative were anti-Semitic, anti-Zionist, and mostly US "experts." The first mention to the idea that was based in claims made by Matthias Chang, a former political secretary to Malaysia's former prime minister, Mahathir Mohamad. Chang's three books about "Zionist Anglo-America" were published by America Free Press, which is run by Willis Carto, whom the Southern Poverty Law Center called a "veteran anti-Semite."¹⁴³ *Press TV* and other Iranian outlets also amplified claims made by E. Michael Jones, editor of *Culture Wars Magazine* – also cited by the Southern Poverty Law Center as anti-

¹⁴⁰ Reuters Staff, "Iran gasoline rationing, price hikes draw street protests," *Reuters*, November 15, 2019, <https://www.reuters.com/article/us-iran-gasoline-rationing/iran-gasoline-rationing-price-hikes-draw-street-protests-idUKKBN1XO2ZE>.

¹⁴¹ David Brennan, "Iran Vows Soleimani Revenge As First Anniversary of Assassination Looms," *Newsweek*, December 30, 2020, <https://www.newsweek.com/iran-vows-soleimani-revenge-first-anniversary-assassination-looms-1557927>.

¹⁴² Natalie Gryvnyak, Isabelle Khurshudyan, and Erin Cunningham, "'Frozen in time': A year after Iran downed Ukrainian plane, victims' families still hunt for justice," *The Washington Post*, January 17, 2021, https://www.washingtonpost.com/world/europe/ukraine-iran-plane-missile-anniversary/2021/01/15/6ee2c558-4f9a-11eb-a1f5-fdaf28cfca90_story.html.

¹⁴³ "12 Anti-Semitic Radical Traditionalist Catholic Groups," *The Intelligence Report*, Southern Poverty Law Center, January 16, 2007, <https://www.splcenter.org/fighting-hate/intelligence-report/2007/12-anti-semitic-radical-traditionalist-catholic-groups>.

Semitic¹⁴⁴ – and Kevin Barret, a US Holocaust denier who has also claimed that the September 11 attacks were an “inside job” by the George W. Bush Administration.

Russian messaging app Telegram also served as a vector for COVID-19 disinformation in Iran. Since most Western social media platforms are banned in the country, Telegram is widely used, and its “channels” have become an important source for the spread of misinformation due to a lack of content moderation. For example, the Masaf Institute, a state-adjacent organization linked to the IRGC, used its “health” channel on Telegram to amplify conspiracy theories regarding COVID-19 as a bioweapon targeting Iran.¹⁴⁵

The country’s highest officials and religious leaders also played a part in disseminating the bioweapon narrative. The first official mention happened on March 3, 2020, weeks after the first confirmed cases in the country, when IRGC Brigadier General Gholamreza Jalali, head of the military organization that oversees biological defense exercises, said in an interview that “some news reports” appeared to point to a hostile state as the source of the virus.¹⁴⁶ Two days later, on March 5, Major General Hossein Salami, commander of the IRGC, said that Iran was engaged in a war against a virus that could be the product of a US biological attack.¹⁴⁷ On March 12, Supreme Leader Ali Khamenei said in an address to the nation that the coronavirus outbreak was possibly a biological attack.¹⁴⁸

These official statements not only amplified the bioweapons narrative domestically, as they were also reported internationally. Despite the official ban of Twitter in Iran, regime officials maintain accounts of the platform, which – in the case of the pandemic – they used to magnify the bioweapon claims in English. For example, on March 9, 2020, former president Mahmoud Ahmadinejad tweeted a copy of a disinformation-filed letter addressed to the UN’s secretary-general, claiming that it was now “clear to the world people that the mutated and intelligent coronavirus 2019, was produced in laboratories” by “world hegemonic powers,” an implied reference to the United States.¹⁴⁹

¹⁴⁴ *Ibid.*

¹⁴⁵ Mahsa Alimardani and Mona Elswah, “Trust, Religion, and Politics: Coronavirus Misinformation in Iran,” Meedan.com, June 23, 2020, <https://meedan.com/reports/trust-religion-and-politics-coronavirus-misinformation-in-iran/>.

¹⁴⁶ “Civil Defense Chief: Coronavirus Likely Biological Attack against China, Iran,” *Fars News Agency*, March 3, 2020, archived at <https://archive.vn/iZbxk>.

¹⁴⁷ Golnaz Esfandiari, “Iranian Commander Suggests Virus May Be US Biological Weapon,” *VOA*, March 7, 2020, <https://www.voanews.com/science-health/coronavirus-outbreak/iranian-commander-suggests-virus-might-be-us-biological-weapon>.

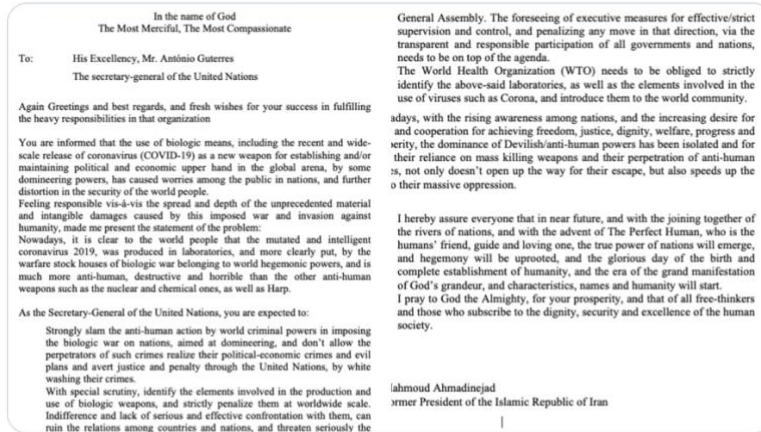
¹⁴⁸ Yasna Haghdoost and Golnar Motevalli, “Iran’s Khamenei Says Virus May Be ‘Biological Attack,’” *Bloomberg*, March 12, 2020, <https://www.bloomberg.com/news/articles/2020-03-12/iran-s-khamenei-says-virus-outbreak-may-be-biological-attack>.

¹⁴⁹ Mahmoud Ahmadinejad, “It is clear to the world that the mutated coronavirus was produced in lab, manufactured by the warfare stock houses of biological war belonging to world powers, & that it constitutes a threat on humanity,” Twitter post, March 9, 2020, archived at <https://archive.vn/2KhBJ>.



Mahmoud Ahmadinejad ✓
@Ahmadinejad1956

It is clear to the world that the mutated coronavirus was produced in lab, manufactured by the warfare stock houses of biological war belonging to world powers, & that it constitutes a threat on humanity more destructive than the other weapons that target humanity. @antonioguterres



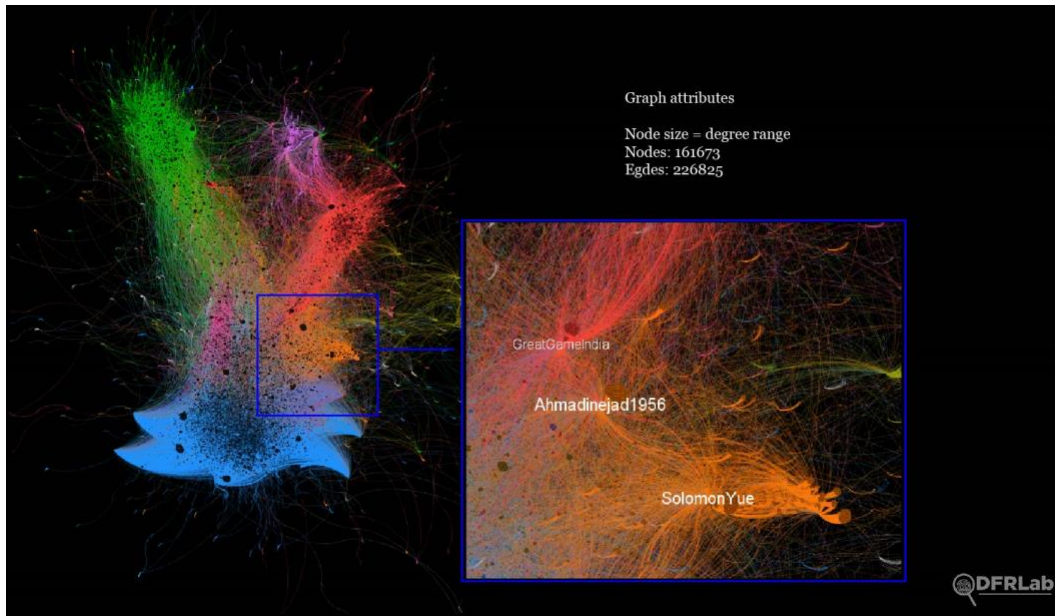
2:47 PM · Mar 9, 2020 · Twitter Web App

3.4K Retweets 995 Quote Tweets 5.4K Likes

Mahmoud Ahmadinejad's tweet containing a screenshot of a letter addressed to the United Nations that claims COVID-19 to be a "biologic weapon."¹⁵⁰

A social network analysis that looked at over 400,000 tweets about COVID-19 and bioweapons in English found that Ahmadinejad was one of the main actors pushing the bioweapon narrative on Twitter between January 1 and April 17, 2020, showing that he was influential in shaping the narrative on Twitter, despite the platform's domestic ban.

¹⁵⁰ Ibid.



Network analysis shows Ahmadinejad as main influencer in the spread of the bioweapon narrative in English.¹⁵¹

Three days later, Ayatollah Khamenei posted there was “some evidence” that the novel coronavirus was a biological attack and declared that Iran was establishing a base to confront it as “biological defense.”¹⁵² The post received more than 1,000 retweets and 5,000 likes.



Screenshot of Khamenei’s tweet mentioning an alleged biological attack with COVID-19.¹⁵³

¹⁵¹ DFRLab-generated graphic made using Gephi.

¹⁵² Ali Khamenei, “Since there is some evidence that this may be a ‘#BiologicalAttack,’ the establishment of this Base in the Armed Forces for confronting the #Coronavirus may also be regarded as a biological defense exercise & add to our national sovereignty & power,” Twitter post, March 12, 2020, archived at https://web.archive.org/web/20200313020028if_/https://twitter.com/khamenei_ir/status/1238247756780785666.

¹⁵³ *Ibid.*

Iran's information apparatus was also used to push the idea that the United States was responsible for the health crisis. One of the most infamous groups involved in Iranian information operations, the International Union of Virtual Media (IUVM), quickly pivoted to COVID-19, using memes and videos to criticize the United States and claim that it had created the virus. According to private research firm Graphika, online personas and sockpuppet accounts were developed on social media platforms to spread these messages, but, as they were discovered shortly after their creation, they did not achieve a large number of followers.¹⁵⁴



Memes posted by IUVM Pixel imply the US created COVID to harm China.¹⁵⁵

If it hard to say whether this was a result of the belief in the conspiracy theory or if, alternatively, Iranian officials saw on the pandemic an opportunity to mobilize defense forces, co-opting narratives primarily for domestic security use. Still, the policy response was shaped by the theory.

As authorities doubled down on the idea that COVID-19 was a bioweapon, the country shifted its limited resources from health to defense, reasserting its control over the domestic population in the process. The IRGC reactivated its "central biological defense headquarters" as part of a biological task force to respond to the crisis.¹⁵⁶ Finally, Khamenei refused US assistance claiming that the virus could be an "ethnic weapon" aimed at hurting Iranians and that US medicine was possibly a way to spread the virus even further.

¹⁵⁴ IUVM Pixel, as captured in Ben Nimmo, Camille François, C. Shawn Eib, and Léa Ronzaud, "Long-Running Iranian Influence Operation Returns to Social Media with Anti-US and Pro-China Messaging," Graphika, April 2020, https://public-assets.graphika.com/reports/Graphika_Report_IUVM_Turns_to_Coronavirus.pdf.

¹⁵⁵ *Ibid.*

¹⁵⁶ Saeid Golkar, "By Mobilizing to Fight Coronavirus, the IRGC Is Marginalizing the Government," The Washington Institute for Near East Policy, April 8, 2020, <https://www.washingtoninstitute.org/policy-analysis/mobilizing-fight-coronavirus-irgc-marginalizing-government>.

CONCLUSION

Like COVID-19 itself, information can mutate and evolve; it experiences “superspreading events,” where influencers use digital and traditional media to amplify rumors that are soon “caught” by unsuspecting members of the public. Just like a pandemic, an infodemic can be mitigated by practicing a digital form of hygiene – employing skepticism, verifying sources and the like. And conversely, an infodemic can spread out of control when influencers and the public make no attempts to contain the rumors around them.

During this particular infodemic, Russia, China, and Iran embraced traditional propaganda tactics that leveraged their existing state media infrastructure to push narratives highlighting how well they were handling the crisis while denigrating their adversaries and competitors. While these efforts were not limited to targeting domestic audiences, domestic concerns played a significant role in terms of which narratives were embraced. Narratives originating from the United States also reflected domestic audiences, but in the context of elected officials positioning themselves as part of a competitive, democratic, and open information environment.

This spectrum of propaganda capabilities, however, was not limited to traditional propaganda, as it also embraced digital influence operations. This was observed in the spread of the narrative that COVID-19 was intentionally man-made. This conspiracy theory, which claims that the virus is some sort of biological weapon, initially emerged organically before being co-opted by certain states and individual politicians that used it to advance their political interests.

Even though it has been well documented how states implement influence operations, in this particular case, they acted in a less-coordinated and less-systematic manner than one might have expected.

State-directed efforts by Russia, China, and Iran to undermine the United States using the bioweapons narrative were to varying degrees less centralized than they initially appeared. There was no single actor – state-based or otherwise – controlling the narrative. Instead, what appeared were occasionally incoherent and sometimes contradictory COVID-19 conspiracy theories spreading and mutating from a variety of sources – including states, state-adjacent sources, individual politicians, fringe websites, and online conspiracy groups.

The co-option of an existing conspiracy theory by state-sponsored actors, rather than the creation of distinct narratives, may have been a practical choice. Amplifying existing conspiracies is an effective and cheap way for states to advance their geopolitical goals, as there is no need to create novel material and invest resources in spreading it. Moreover, if a conspiracy theory is already spreading organically, it likely has certain attributes that has made it succeed in unpredictable ways. In other words, rather than

spend time and resources engineering false narratives, some state actors, including Russia, China, and Iran, may have opted to exploit organic narratives already circulating in the global information space.

But the proliferation of various strains of the COVID-19 conspiracy theories, which often contradicted one another, may also reflect the chaotic and saturated nature of the information environment during the infodemic. Early on in the pandemic, when little was known about the virus, state actors like Russia, China, and Iran with a history of employing domestic information control and suppression were working to frame their responses as successful to the international community while struggling to control both outbreaks of the virus and the flow of information at home. Meanwhile, in the United States, where the government has much less control over the flow of information, flourishing online domestic conspiracy communities like QAnon fueled the domestic demand for coronavirus-related disinformation. Former President Donald Trump and other political figures as well as social media influencers engaging in speculation for their own interests provided oxygen to these conspiracy theories by openly speculating about the virus's origin.

No matter the motivations behind these narratives, their spread complicated efforts by health officials to build public trust in the response. Speculation about governments' roles in the crisis created a vicious cycle in which many people who embraced conspiracy theories became less likely to engage in common-sense mitigation efforts, resulting in additional opportunities for the virus to spread, which in turn led to more distrust, speculation, and conspiracy-mongering. Even when motivated to assuage domestic fears of the virus, adversarial government messaging added to the noise of the global information space, at the expense of increased multilateral cooperation and unity of purpose. And all the while, the virus spread across the globe.

Ultimately, this story is a cautionary tale, a case study in an escalating competition for primacy over the global information environment and potentially a harbinger of things to come.

APPENDIX: TIMELINE

Dec 31, 2019: The World Health Organization (WHO) China office learns about several cases of an unknown “viral pneumonia” in Wuhan; first public speculation that the virus might be man-made appears on Weibo, with some claiming the United States had engineered it.

Jan 5, 2020: First post insinuating China had created the virus, tweeted by a Hong Kong-based account.

Jan 11, 2020: Chinese media reports the first death caused by the novel coronavirus.

Jan 13, 2020: First case confirmed outside of China, in Thailand.

Jan 20, 2020: Kremlin-backed *Zvezda* publishes article suggesting the United States might have created the virus, based on an interview with Igor Nikulin; it is first time the conspiracy theory is mentioned on state media.

Jan 21, 2020: The United States reports its first confirmed case; financial blog *Zero Hedge* publishes article comparing Wuhan lab to Resident Evil’s Umbrella Corp, a fictional corporation in a video game that developed and sold biological weapons.

Jan 23, 2020: British tabloid *The Daily Mail* publishes article insinuating Wuhan laboratory was insufficiently secure, implying the virus might have leaked from there.

Jan 26, 2020: The obscure Indian blog *Great Game India* publishes article claiming a Chinese scientist working for a Canadian lab stole the virus and gave it to China, which is republished by *Zero Hedge*; the *Washington Times* publishes an article indicating that the disease might be a Chinese bioweapon.

Jan 28, 2020: China starts to react to accusations by saying there is no evidence that virus is manmade.

Jan 30, 2020: WHO declares COVID a “global health emergency”; Francis Boyle gives his first interview claiming COVID-19 might be a bioweapon, to the podcast *Geopolitics and Empire*; IRIB, the Iranian state broadcasting agency, publishes first article suggesting COVID-19 might be a US-made bioweapon; US Senator Tom Cotton (R-AR) tweets that there is no confirmation about where the virus emerged and notes that China’s only biosafety lab is located in Wuhan.

Jan 31, 2020: First COVID-19 cases confirmed in Russia.

February 2, 2020: WHO releases a COVID-19 situation report that described the pandemic as featuring a parallel *infodemic*, their first use of the term in public.¹⁵⁷

Feb 10, 2020: *Fox News*' Tucker Carlson asks a doctor on his show whether there was evidence that this was "not a naturally occurring virus, that it was somehow created by the Chinese government."

Feb 15, 2020: WHO Director-General Dr. Tedros Adhanom Ghebreyesus delivers a speech at the Munich Security Conference, declaring, "[W]e're not just fighting an epidemic; we're fighting an infodemic. Fake news spreads faster and more easily than this virus and is just as dangerous."¹⁵⁸

Feb 17, 2020: *Global Research Canada* publishes a piece by Larry Romanoff claiming a "man-made origin" for COVID-19 cannot be dismissed. Romanoff cites the earlier interview with Igor Nikulin as his source.

Feb 19, 2020: First COVID-19 case reported in Iran; *ChinaXiv* publishes a research paper that speculates the origins of the virus could be outside of Wuhan.

Feb 21, 2020: Francis Boyle gives interview to *InfoWars*; Japanese *Asahi TV* misconstrues a US Centers for Disease Control and Prevention statement on February 14 as meaning the 2019 influenza death toll could be COVID-19 related.

Feb 22, 2020: Chinese outlets *Global Times* and *People's Daily* speculate that the virus may have been present in the US in 2019, based off *Asahi TV's* claims.

Feb 23, 2020: Chinese outlets *CGTN* reports on a *ChinaXiv* article casting doubt on the Wuhan origins of the virus; *People's Daily* repeats claims by *Asahi TV* that COVID-19 could originate in the United States.

Feb 24, 2020: The *Helsinki Times* syndicates the *People's Daily* report on the possible US origins of the virus.

Feb 26, 2020: *The New Zealand Herald* syndicates the *People's Daily* report on possibly US origins. The piece is later removed from the website.

Mar 4, 2020: Larry Romanoff publishes an article on *Global Research Canada* claiming the virus could have originated in the US. The claims are based on the Japanese, Chinese and Taiwanese media reports.

¹⁵⁷ "Novel Coronavirus (2019-nCoV) Situation Report 13," World Health Organization.

¹⁵⁸ Tedros Adhanom Ghebreyesus, "Fighting an infodemic," Speech, Munich, Munich Security Conference, February 15, 2020, <https://www.who.int/director-general/speeches/detail/munich-security-conference>.

Mar 5, 2020: *Fox News'* Jesse Watters demands apology from China; Zhao Lijian, the spokesperson for the Chinese Ministry of Foreign Affairs, responds to the demand by citing that the origin of the virus is still undetermined.¹⁵⁹

Mar 11, 2020: WHO declares COVID-19 a global pandemic; another article by Romanoff published on *Global Research Canada* publishes article claiming virus might have accidentally leaked from a US military lab at Fort Detrick.

Mar 12-13, 2020: China's Zhao Lijian republishes *Global Research Canada* article in a series of tweets accusing the United States of spreading the virus, insinuating the US Army was at fault; Iran's Supreme leader, Ayatollah Ali Khamenei, says the coronavirus was possibly a biological attack.

Mar 23, 2020: First "Q drop" – a message sent by "Q," the anonymous leader of the QAnon conspiracy theory – claiming COVID-19 was a Chinese biological weapon.

Mar 26, 2020: US becomes the country with the most COVID-19 cases, with 81,321 confirmed infections and more than 1,000 deaths.

Apr 10: Cases spike in Russia, reaching 12,000, pressuring the health system. Moscow health authorities admit cases have doubled in one week.

Apr 16, 2020: *The Washington Post* and *Fox News* publish pieces claiming that the United States had intelligence that proved the virus had accidentally leaked from Wuhan lab.

Apr 30, 2020: President Donald Trump says he has seen proof that the virus originated in Wuhan lab, but offers no evidence.

May 3, 2020: Secretary of State Mike Pompeo claims there is "enormous evidence" that COVID-19 originated in a lab but does not offer context or present any evidence.

May 6, 2020: Pompeo hedges his comment and admits the US cannot be sure about origins of the virus.

May 24, 2020: Wang Yanyi, director of Wuhan lab, claims that statements insisting the virus leaked from the lab are "pure fabrication."

May 27, 2020: The United States surpasses 100,000 deaths.

¹⁵⁹ "Spokesperson refutes US Fox News host," *Xinhua*.

June 10, 2020: European Commission names China as a spreader of online disinformation for the first time, claiming Beijing and Moscow tried to undermine Western democracies by mentioning theories that COVID-19 was created in a US lab.