POST-MORTEM
RUSSIAN AND CHINESE COVID-19 INFORMATION OPERATIONS
This report is the result of research contributed over the course of 18 months by a team of researchers lead by Edward Lucas and including Ben Dubow, James Lamond, Jake Morris, Corina Rebegea, and Vera Zakem.

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*Cover: Chinese healthcare worker during a COVID-19 lockdown in Shanghai China March, 2022. Credit: AMAR SHRESTHA / Alamy Stock Photo*
CONTENTS

EXECUTIVE SUMMARY  2
INTRODUCTION  4

PART ONE
INFORMATION BEDLAM – RUSSIAN AND CHINESE INFORMATION OPERATIONS DURING THE COVID-19 PANDEMIC  7
RUSSIA  7
CHINA  7
NOTABLE DIFFERENCES  8
THE COVID-19 EXPERIMENT  9

PART TWO
JABBED IN THE BACK – MAPPING RUSSIAN AND CHINESE INFORMATION OPERATIONS DURING THE COVID-19 PANDEMIC  21
LESSONS LEARNED  22
CHINA  25
RUSSIA  28
COMPARING AND CONTRASTING RUSSIA AND CHINA  31
IMPLICATIONS OF THE DATA  34
METHODOLOGY  37

PART THREE
OWNING THE CONVERSATION – ASSESSING RESPONSES TO RUSSIAN AND CHINESE INFORMATION OPERATIONS AROUND COVID-19  39
GOVERNMENT INTERVENTIONS  39
DIGITAL PLATFORMS' RESPONSES  45
WHAT IS WORKING  49
A NEW STRATEGIC APPROACH FORWARD  52

ENDNOTES  60
EXECUTIVE SUMMARY

• During the COVID-19 pandemic, the Chinese Communist Party (CCP) has spread disinformation about the efficacy of vaccines and the virus's origins, a shift from Beijing's previous disinformation campaigns, which had a narrower focus on China-specific issues such as Tibet, Hong Kong, Xinjiang, and Taiwan. Most of Beijing's COVID-19 narratives aimed at shaping perceptions of China's response to the pandemic and only rarely targeted other countries specifically.

• Russia recycled previous narratives and exacerbated tensions in Western society while attempting some propaganda about Russian scientific prowess. Russia's approach evolved little; it recycled previous narratives, spreading a broad range of COVID-19 disinformation.

• Evidence supports the theory that Russia seeks to strengthen itself in relative terms by weakening the West, while China seeks to strengthen itself in absolute terms.

• The Kremlin and the CCP learned from each other. While limited evidence exists of explicit cooperation, instances of narrative overlap and circular amplification of disinformation show that China is following a Russian playbook with Chinese characteristics. Russia is simultaneously learning from the Chinese approach.

• The largest difference between China and Russia's information warfare tactics remains China's insistence on narrative consistency, compared with Russia's “firehose of falsehoods” strategy. Even with substantially greater resources, this largely prevents Chinese narratives from swaying public opinion or polarizing societies.

• The US government, the European Union, and multinational organizations have developed a series of interventions in response. These include exposing disinformation, providing credible and authoritative public health information, imposing sanctions, investing in democratic resilience measures, setting up COVID-19 disinformation task forces, addressing disinformation through regulatory measures, countering emerging threat narratives from Russia and China, and addressing the vulnerabilities in the information and media environment.

• Digital platforms, including Twitter, Meta, YouTube, and TikTok, have increased their efforts to counter COVID-19 disinformation and misinformation via policy procedures, takedowns of inauthentic content, addition of new product features, and partnering with civil society and multinational organizations to provide credible and reliable information to global audiences. In addition, digital platforms are addressing COVID-19-related disinformation and misinformation stemming from a variety of state and non-state actors, including China and Russia.
• Several of these initiatives have proven to be effective, including cross-sectoral collaboration to facilitate identification of the threat; enforcement actions between civil society, governments, and digital platforms; and investment in resilience mechanisms, including media literacy and online games to address disinformation.

• Despite some meaningful progress, democracies need a strategic shift in the approach to information warfare. This will require gaining a deeper understanding of how adversaries think; aligning and refining transatlantic regulatory approaches; building coordination and whole-of-society information-sharing mechanisms; expanding the use of sanctions to counter disinformation; localizing and contextualizing programs and technological solutions; strengthening societal resilience through media, digital literacy, and by addressing digital authoritarianism; and building and rebuilding trust in democratic institutions.
INTRODUCTION

By Edward Lucas

Authoritarian regimes’ use of information operations (IOs) is anything but new. But the emergence of the COVID-19 pandemic prompted their use on a level never before seen as Russia and China sought to exploit the crisis for geopolitical gains. The global pandemic offered a perfect opportunity for hostile state actors to launch IOs aimed at:

- weakening Western responses, processes, and institutions;
- deflecting responsibility; and
- testing new tactics for polluting the information environment and expanding their propaganda efforts.

Russia and China have been particularly active in the context of the pandemic, leveraging their significant global state-run media operations. The state-based “infodemic,” as it has come to be known, has distracted public opinion, undermined confidence in public authorities’ competence and integrity, and accumulated political and diplomatic capital. The infodemic, along with the virus itself, has become part of the global crisis.

At the beginning of the pandemic, the Center for European Policy Analysis (CEPA) launched a project to better understand this challenge and what lessons can be learned. Over the last 18 months, CEPA has analyzed:

- the tool kits used by Russia and China;
- the deployment and evolution of these tool kits over the course of the pandemic;
- the degree of strategic coordination between Beijing and Moscow; and
- the effectiveness of countermeasures needed to forestall Russia and China now and in the future.

In recent years, the Russian Federation has been among the most successful at spreading disinformation to sow distrust in the West. With the onset of the COVID-19 pandemic, the Kremlin’s state-backed media recycled previous disinformation campaign tactics, spreading a broad range of false information regarding the virus and the West’s incompetence in managing it. Russia’s goal focused on swaying public opinion and polarizing societies in the West while cultivating confidence in Russian scientific advancement. Prior to the pandemic, the Chinese Communist Party (CCP) had primarily focused its IOs on core issues of concern, such as Tibet, Hong Kong, Xinjiang, and Taiwan. However, during the COVID-19 pandemic, the CCP utilized destructive and conspiratorial narratives on a new scale.
Post-Mortem: Russian and Chinese COVID-19 Information Operations

In this new environment, the Kremlin and the CCP learned from each other. The study found limited evidence of explicit cooperation. However, instances of narrative overlap and circular amplification of disinformation show that China has followed a Russian playbook with Chinese characteristics, while Russia simultaneously has learned from the Chinese approach. The largest difference in tactics remains China’s insistence on narrative consistency, compared with Russia’s “firehose of falsehoods” strategy. Even with substantially greater resources, this rigid message discipline largely prevented Chinese narratives from swaying public opinion or polarizing societies to the same degree, because, unlike Russia, China did not target content to specific audiences.

In response to this dangerous information environment, the US government, the European Union, and multilateral organizations have learned from past experiences and established a range of interventions, including:

- exposing disinformation,
- providing credible public health information,
- imposing sanctions,
- strengthening democratic institutions,
- setting up COVID-19 disinformation task forces,
- countering emerging narrative threats, and
- addressing gaps in the information space and media environment.

Digital platforms have also worked to counter disinformation and remove unverifiable content, even partnering with civil society and multinational organizations to provide credible information to users.

While this represents an improvement from previous experiences with disinformation and information warfare, the West is still playing catch-up. What the West needs is a strategic shift in its approach to information warfare. This should consist of seven pillars:

1. Understand how the adversary thinks
2. Develop, refine, and align on transatlantic regulatory approaches
3. Stand up a coordination and information-sharing whole-of-society mechanism for information integrity and resilience
4. Develop a comprehensive deterrence strategy and leverage traditional tools of statecraft
5. Localize and contextualize interventions
6. Build and rebuild trust in democratic institutions
7. Strengthen societal resilience by advancing media and digital literacy, countering digital authoritarianism, and measuring the impact of policy interventions
The pandemic has revealed that the West can still be caught flatfooted in the information space. But that does not mean the West cannot turn that around. The war in Ukraine has had many lessons for the world, one of which is that Russia, which had the world’s most formidable information warfare apparatus, is losing the information war. The malign IOs of the Kremlin melted when confronted with the positive, offensive message and the power of the free press. This is a fight that can be won: the West just needs a new approach.

A note on terminology: China’s COVID-19 information operations (IOs) are a significant threat, but research and policy responses should be prioritized efficiently, and researchers should be clear about their definition of disinformation as opposed to broader IOs. For the purposes of this paper, CEPA defines disinformation as narratives purposefully meant to mislead and only partially based on the truth. While propaganda and other IO tools are polarizing, disruptive, and spread to support state interests, they require a different response than messages more akin to conspiracy theories or biased versions of the truth. This paper examines both disinformation and propaganda as important tools of IOs spread to support Chinese and Russian interests during the pandemic.
PART ONE

INFORMATION BEDLAM

RUSSIAN AND CHINESE INFORMATION OPERATIONS BEFORE COVID-19

RUSSIA

Russia’s strategic aim is to undermine the foundations of the liberal democratic order by delegitimizing the United States as a credible partner, intensifying divisions within the transatlantic alliance, and eroding public support for values and institutions. Its approach is confrontational, destructive, and often clandestine.

Since 2014, Russia conducted social media manipulation campaigns in at least 70 countries in seven languages across 300 platforms and web forums, marking a continued increase in sophistication and intensity. Tactics include concealing, disguising, coopting, penetrating, and manipulating. Spreading conspiracy theories muddles the information environment and undermines public confidence in the nature of truth. Local proxies help Russia exploit social tensions and obfuscate the origins of its disinformation. Local proxies’ existence also hampers regulation by raising freedom of speech concerns. The Kremlin mainly relies on Western social media platforms, whereas China can also use its own platforms that are subject to control from Beijing.

CHINA

Before 2020, China’s IOs were more subtle, patient, and risk-averse than Russia’s, even though Chinese President Xi Jinping brought a more aggressive approach to Chinese foreign policy. The CCP started spreading disinformation on social media outside of mainland China as early as 2017, but this focused on elites, building a positive image of China and creating a consistent narrative. Global influence campaigns included promoting favorable content through state media outlets and cultivating or purchasing foreign outlets as proxies.

Prior to the pandemic, Chinese disinformation focused on hot-button issues that impacted the CCP’s core claims to legitimacy: Hong Kong, Taiwan, Xinjiang, and Tibet. In 2018, China used disinformation to interfere in Taiwan’s legislative elections, apparently benefiting the pro-Beijing opposition party, the Kuomintang (KMT). Chinese embassies and ambassadors began opening social media accounts on Western platforms in 2019 during the protests in Hong Kong against a bill
proposed by the government that would have allowed extraditions to mainland China, a trend that continued into 2021.\textsuperscript{13}

**NOTABLE DIFFERENCES**

- China’s IO campaigns seek to protect its own national image, having more focused objectives, while Russia pursues destabilization and takedowns of other countries. As China amplified similar COVID-19 narratives throughout the pandemic, Russian COVID-19 narratives shifted and became less prominent as the Kremlin started to focus on new themes.\textsuperscript{13}

- In 2020, half of English-language Chinese state media reporting was about China, while only 5\% of Russian English-language state media reporting focused on Russia. Despite subsequent changes (see below), these statistics confirm that Russia sought to strengthen itself in relative terms by weakening the West, while China sought to strengthen itself in absolute terms.\textsuperscript{14}

- China was confident, whereas Russia doubted its soft power. China had its own strengths in the media and information space and already owned five of the six most-followed news pages on Facebook.\textsuperscript{15} China inserted content into mainstream foreign publications, whereas Russia largely influenced the
information environment through social media, fringe proxies, and its own media outlets.¹⁶

- Russia’s IOs were more confrontational, while China’s were more under-the-radar.¹⁷ The Kremlin was willing to live with the consequences of interfering in elections and spreading disinformation. China acted more cautiously with the hope that building influence in a less overt and disruptive manner would bring future benefits.

- Unlike the Kremlin, the CCP relied more on suppressing negative information, both domestically through its censors, and overseas through the growing Chinese media presence, companies’ dependence on the Chinese market, covert funding of think tanks and universities, as well as links with political elites.¹⁸

- During the pandemic, experts have witnessed significant convergence between the two state actors with China spreading mutually contradictory conspiracy theories and Russia further closing its information space. This convergence continued into 2022, even as Russia pivoted from COVID-19-related disinformation to focus on the war in Ukraine.¹⁹

**THE COVID-19 EXPERIMENT**

Russia’s approach to disinformation evolved more slowly than China’s, but its success has inspired other actors to use the Russian playbook. In 2020, China’s IO tactics converged with Russia’s “firehose of falsehoods” model, including spreading multiple conflicting conspiracy theories to undermine people’s trust in facts.²⁰ For the first time, China actively spread disinformation on a global scale, partially with diplomats’ increased use of Western social media.²¹ But Kremlin-sponsored content receives substantially more engagement, reflecting Russia’s better understanding of Western political dynamics.²² This provided China with a ready-to-use tool kit that complements its own strengths.

**Russian Narratives**

During the COVID-19 pandemic, Russian disinformation has recycled many anti-Western narratives from previous crises. Russia has spent decades studying loopholes, vulnerabilities, and societal divisions in the West. Disinformation builds off of existing master narratives that Russia advances, such as NATO’s nefarious role, the EU’s incompetence and decay, democracies’ failure to deal with crises, and endemic Western Russophobia. With time, conspiracies build upon each other and prime target audiences for ever more disinformation.

**COVID-19 as a Western bioweapon**

Prior to the World Health Organization (WHO) labeling the COVID-19 outbreak as a pandemic in 2020, a Russian state outlet declared that the virus that causes the disease was designed in NATO labs.²³ Since then, allegations that the United States created the COVID-19 virus received the largest social media engagement.²⁴ This echoed Operation Denver, the Soviet KGB’s attempt in the 1980s to blame the HIV/
AIDS epidemic on the United States. Russia revived narratives that tied military laboratories and US troops to the outbreak of COVID-19, including accusations that a US-led military exercise helped spread the virus. This disinformation particularly affected the largest Western democracies and countries on Russia’s periphery. Special targets were Ukraine and Georgia, where Russian media outlets sought to infiltrate the information environment with pro-Kremlin and anti-Western narratives.

The failure of the West’s response to the pandemic

Russia also spread propaganda and disinformation criticizing the West’s response to the pandemic, including prophesying an imminent collapse of Schengen, NATO, and the EU. An underlying, sometimes overt theme, was that authoritarian governments can more effectively control the virus than democracies, which are inherently weak. China and Russia used the Capt. Crozier incident — the firing of the commanding officer of a US aircraft carrier after he raised the alarm about a COVID-19 outbreak on his ship — as a prime example of the failings of US public administration.

Medical solidarity

At the start of the pandemic, the European Union (EU) banned the export of medical supplies and EU member states reimposed border controls. Legitimate criticism of this soon turned to disinformation. Russian media praised its own aid to the Western Balkans and countries within the EU even though the Italian newspaper La Stampa discovered that most of the equipment was purchased as normal exports — not received as aid — and that it was mostly faulty. A Russian senator played up historical Russian-Polish animosity to push a false story that Poland had refused Russian access to Polish airspace while Russia attempted to send humanitarian supplies to Italy. Humanitarian aid from Russia was also used as a front for an intelligence gathering operation and was used to spread propaganda in Italy as GRU (Main Directorate of the General Staff of the Armed Forces of the Russian Federation) operatives were on the ground and Russian media promoted gratitude from Italians. Sputnik Italia amplified the disinformation and the narrative received more than three million Twitter impressions. The distribution of narratives differed depending on the target country. In the Balkans, where public opinion is largely supportive of EU accession, Russian media falsely showed Italians replacing EU flags with Russian flags.

COVID-19 anti-vaccine narratives

Russian vaccine disinformation appeared as early as January 2020 after a decade-long effort to cultivate relationships with anti-vaccine campaigners and promote health disinformation. Some of the most prolific vaccine disinformation came from a Russian-backed separatist group in Ukraine which claimed that vaccine tests from US-based Moderna killed five Ukrainians. This disinformation reached 14 million people by targeting both right-wing and left-wing vaccine skeptics.
In August of 2020, Russia announced that it had developed Sputnik V, the world’s first COVID-19 vaccine, though safety concerns had not been addressed through internationally accepted standards and trials. A state-backed disinformation campaign argued that it was the world’s only safe option. Russia was betting that even if the vaccine fails, it would still receive a short-term soft-power victory with non-allies like Mexico and Brazil signing up to buy the vaccine and German Chancellor Angela Merkel considering producing the vaccine in the EU. Even though Russia did not join COVAX, it criticized the United States for being irresponsible for not initially joining the multilateral effort under the Trump administration.

Russia advertised the Sputnik V vaccine as a “vaccine for humankind” that was the most efficient and cost-effective vaccine in the world. In October 2021, Russian President Vladimir Putin boasted that this vaccine was approved by 70 countries and was supplied to more than 50. Putin also assured that Russia would provide COVID-19 test kits and reagents free of charge. This vaccine diplomacy is part of the greater campaign to elevate Russia’s status as an international player and partner. The Kremlin prioritized promotion of Sputnik V internationally, rather than vaccinating Russians domestically, as a tool of information warfare against the West. The early registration of the vaccine prior to international protocols had a two-pronged strategy. First it was meant to shock the world with premature vaccine registration, which would provoke criticism and present Russia as a victim of Western Russophobia. Then Russia expected to receive positive reviews as validation of its scientific prowess. However, while the vaccine was approved by some regulatory bodies, many countries discontinued its use amid safety concerns and delays in delivery caused anger.

Engaging with anti-vaccine activists while simultaneously promoting its own vaccine exemplifies Russia’s embrace of contradictory conspiracy theories. Forfeiting a singular narrative allows the Kremlin to target a larger population. The virus is simultaneously presented as a plague and a hoax, leading to responses that incite panic, fake cures, and conspiracies about 5G towers all at the same time. While this approach is helpful for sowing discord, it can also backfire. For example, a Russian disinformation campaign to undermine Western vaccines has had a spillover effect, contributing to vaccine hesitancy among the Russian population.

**Russian Tactics, Distribution Strategies, and Target Audiences**

The pandemic enabled the Kremlin to entrench control over the information environment. While Russia’s IO tactics did not change as noticeably as China’s, the Kremlin continued refining existing tactics, particularly on how to blur the lines between legitimate and illegitimate sources and obfuscate reliable information. Overseas, Russian IOs advanced geopolitical goals. Russia presented different narratives to its own citizens. While Russian state broadcasters demanded the use of face masks and vaccines to its domestic audiences, they criticized these precautions on the international stage.
Suppression and surveillance

The Russian government used the pandemic to suppress information about the virus and targeted doctors who criticized the government.51 With technology bought from China, Russian authorities expanded digital surveillance capabilities and tested the use of facial recognition and QR codes for quarantine control.52 Prior to 2022, Russia’s information space was more open than China’s, though it had been inspired by China’s model of closed internet standards and cyber sovereignty — promoting international norms that recognize a country’s right to tight control over its internet and censorship of political content.53 Since the war in Ukraine, the “sovereign internet” has made significant advances with the Kremlin creating a near monopoly on the control of information inside Russia, but the groundwork has been in place for years and was advanced during the pandemic.54

Use of proxies

Russian tactics include using proxies and impersonating real organizations.55 Russian media amplified statements by Italian politicians praising Russian medical equipment.56 In Ukraine, proxies spread panic about evacuees returning from China.57 This led to violent protests and a governor’s resignation.58 In another example, 20 journalists worldwide learned they had unwittingly become writers for a Russian-backed outlet called Peace Data (the name is a pun on a Russian obscenity) which was posing as a real media outlet.59 In France, researchers discovered websites of GRU front organizations spreading COVID-19 disinformation,60 though the average viewer may not have noticed the Russian links.61 In May 2021, social media influencers in France and Germany reported that a London-based group, controlled from Moscow, offered to pay them to spread disinformation about the Pfizer vaccine.62 Pro-Kremlin outlets also copied text from other sources to avoid language and grammatical mistakes, while using fewer hashtags to avoid detection by natural language processing systems and blurring or removing watermarks.63

Many websites in the pro-Kremlin information environment receive limited engagement, but their content is still amplified by more popular sites. This makes it challenging to trace disinformation to its source. While Twitter has prohibited Russian-affiliated media from amplifying tweets, verified Russian government accounts continue to post with very few restrictions. Through a Twitter loophole, more than 100 Russian government accounts promote conspiracy theories and disinformation through an intricate retweet network. On Twitter, 1% of Russian disinformation accounts tweeted more than 35% of shared tweets.64 Russian disinformation usually spreads on fringe websites and in online alt-right circles, and is subsequently amplified by government-backed outlets.65
**Targeted approach**

Russia also used diverse tactics and distribution strategies. In countries where Russian is widely spoken, the Kremlin spread its disinformation through Russian-language TV and proxies like the Russian Orthodox Church. Across Europe, Russia also used its local-language TV channels to spread disinformation. During the German federal elections in September 2021, RT Deutsch spread vaccine-related disinformation; the outlet was banned in February 2022. For elderly populations, Russia focused on chain emails instead of social media. In the Middle East and Latin America, because Russia wants citizens to view RT as a legitimate news source, it spreads disinformation through Sputnik Mundo and News Front-Español. During the COVID-19 pandemic, RT en Español remained largely neutral, sometimes even critical of Russia and China. The EU’s March 2022 decision to ban RT following the invasion of Ukraine may have a profound impact on Russia’s ability to promote disinformation among targeted audiences for years to come.

**Narrative laundering**

Throughout the pandemic, Russia has consistently tied COVID-19 IOs to its geopolitical goals, particularly regarding Western sanctions and the Kremlin’s interests in Russia’s near abroad. Russia argued that Western sanctions were inhumane, and its foreign ministry spokesperson even said that sanctions on Venezuela were approaching genocide.

As noted above, Ukraine and Georgia have traditionally been testing grounds for Russian hybrid warfare and the pandemic was no exception. Even before the current war, Russia incited violent protests and used organic COVID-19-related protests to portray western Ukrainians as particularly violent and ignorant, in an effort to reduce Ukraine’s maneuverability in peace talks over the conflict in Donbas. In the Caucasus, Russian media falsely accused Georgia of exploiting the pandemic to violate the South Ossetian border with EU support. Farther afield, Russian outlets amplified narratives already circulating in the West that Syrian relief groups like the White Helmets were using the pandemic to accelerate regime change. The Kremlin is particularly adept at amplifying disinformation already circulating in the West. This blurs the lines between foreign and domestic disinformation.

Russia had at least some short-term geopolitical success with polls from June 2020 finding that most Serbs falsely believed Russia delivered more aid to their country than the EU.

**Chinese Narratives**

The pandemic has put the CCP in a vulnerable position, forcing a turn to more destructive and conspiratorial narratives in an attempt to change global opinion about China’s initial failure to contain COVID-19. State media and government officials spread disinformation about the origins of COVID-19 at the beginning of the pandemic, and have continued since. Once China successfully contained the virus within its borders, its propaganda focused on vindicating its draconian approach while criticizing the West for its failed response. Finally, China amplified stories about its international leadership, including collaboration with the WHO.
and sending shipments of medical assistance to hard-hit countries. The underlying narrative was that China’s governance model is more effective than the West’s.\textsuperscript{72}

The origins of the virus

Early on in the pandemic, China began to shift blame away from itself, removing any mention of #Wuhan in the government’s Twitter posts about the virus.\textsuperscript{76} Chinese media started mentioning a now-deleted Japanese TV report arguing that COVID-19 might have been present in the United States in 2019.\textsuperscript{79} Further outsourcing blame, China has called on the WHO to look into other countries, such as the United States, as possible origins of the pandemic.\textsuperscript{80} On March 12, 2020, Zhao Lijian, the spokesman of China’s Ministry of Foreign Affairs, retweeted a video which argued that the US military could have brought COVID-19 to Wuhan during the 2019 World Military Games.\textsuperscript{81} Chinese think tanks blamed US military bioweapons labs for the origins of the virus.\textsuperscript{82} After the Biden administration instructed the US intelligence community to provide a more conclusive report on the possibility that COVID-19 leaked from a Wuhan lab in 2021, the CCP stepped up its efforts to spread conspiracies about the virus’s origins, including recirculating disinformation from early in the pandemic about Fort Detrick, a US military lab.\textsuperscript{83} While not recycled
to the same extent as Russia’s, these tactics have a history: Mao Zedong blamed the United States for spreading viruses during the Korean War.84

In October 2020, a spokesperson for the Chinese Embassy in Prague stated, “China was the first country to report the epidemic, but that does not mean that the epidemic originated in China.”85 Official Chinese outlets continued to spread disinformation that the virus appeared in many countries before China.86

**China’s success in containing the virus**

China’s narrative around the virus followed the common theme that democracy is ineffective and unable to address big challenges compared with authoritarian systems. In praising its own response to the pandemic, the CCP wanted the world to believe that China’s official data was accurate and transparent, that the outbreak was under control, and that the country could serve as a model.87 To gain legitimacy, Chinese media amplified positive comments from Western leaders like former French Prime Minister Jean-Pierre Raffarin who said that the Chinese government “has manifested extremely effective organization and mobilization ability, which is exactly the advantage of the Chinese system.”88

Like other Chinese narratives about its response to the virus, there was usually a mixture of potentially truthful propaganda and disinformation. In February 2020, China’s Ministry of Foreign Affairs tweeted a photo of a hospital being constructed in 16 hours, but researchers discovered that the photo was in fact of an apartment building.89 By late February, “wolf warrior” diplomats — the term for the most aggressive and confrontational members of the Chinese foreign service — became increasingly critical, accusing the West of using COVID-19 as an excuse to contain China’s rise.90 In France, the Chinese Embassy called out French authorities for letting the elderly die in their nursing homes.91

**Chinese mask diplomacy**

To boost its image as an international leader, China sent doctors and medical equipment to other countries. Most Chinese reporting about this was disinformation since the majority of China’s aid was faulty or purchased as normal exports instead of given freely.92 Chinese media also made no distinction between assistance from the government and nominally private Chinese organizations.93 Chinese media and local embassies amplified praise from Europeans thanking China for its support with pro-China sentiment in Italy drastically increasing from 10% in January to 52% in March 2020. However, pro-China sentiment decreased as quickly as it increased in Italy; just a year later 60% of surveyed Italians had an unfavorable view of China.94 Like Russia, China criticized the EU for its initial ban on the export of medical equipment and the United States for its lack of support for the WHO.95
Chinese Tactics, Distribution Strategies, and Target Audiences

After its initial failure to contain the virus, the CCP quickly attempted to shift blame away from China with a coordinated global disinformation campaign by media and diplomats about the origins of COVID-19. Like Russia, China is using the pandemic for its geopolitical advantage, including the export of vaccines to the developing world.

Information suppression

Disinformation frequently starts at home, and as early as December 30, 2019, the Wuhan Municipal Health Commission issued a gag order on COVID-19-related topics. For the first month of the pandemic, there was virtually no reporting from Chinese media about the outbreak due to tight control from the CCP and schedules for editors to publish articles on certain topics. Before Xi’s first public remarks about the virus on January 21, 2020, state media focused on the US flu outbreak instead of COVID-19. Once the coronavirus went global, the Chinese government rigorously censored international criticism of China while allowing screenshots of inflammatory tweets from Zhao, the spokesman of China’s Ministry of Foreign Affairs, and others to filter downward in the domestic information environment.

The CCP has also punished approximately 600 Chinese citizens for content that they posted about COVID-19 and have investigated more than 17,000 people. Censorship is not always done directly by the state. Chinese platforms often performed self-censorship because of intermediary liability rules. During Shanghai’s lockdown in April 2022, Chinese internet authorities tried to block footage of citizens discussing the dismal conditions of the lockdown.

Spreading conspiracies and denying facts

Contrary to its traditional focus on creating one narrative with total certainty, COVID-19 prompted China to follow the Russian model of diluting the information environment. After a fourfold increase in their Twitter presence since January 2019, Chinese diplomats conducted a coordinated campaign of complementing disinformation from the Chinese media. In total, Chinese diplomats operate 449 accounts on Twitter and Facebook and posted more than 950,000 times between June 2020 and February 2021. This coordinated blame-shifting campaign also worked in reverse. Chinese state media outlets amplified favorable narratives, including Zhao’s tweets about the US origins of the virus which he continued to push throughout 2021. Chinese diplomats have continued working closely with state media to float new theories on the origins of COVID-19. To add a veneer of legitimacy, China has frequently taken words out of context from respected scientists such as Dr. Robert Redfield, who was the director of the US Centers for Disease Control and Prevention, and Alexander Kekulé at the German Institute for Biosecurity Research. Dr. Anthony Fauci, the current chief medical adviser
to US President Joseph R. Biden, Jr., has also come under criticism from Chinese state media after he discussed the origin of the COVID-19 virus. The CCP has also amplified China’s own scientists. In November 2020, scientists affiliated with the state-run Chinese Academy of Sciences published a paper claiming that Wuhan was not the first place where COVID-19 transmission occurred. China’s wolf warrior diplomats have used doctored images to attack those that have criticized this disinformation, particularly in Australia.

Covert digital operations

While still relatively rudimentary, China has used inauthentic social media accounts to amplify positive messages about itself while spreading disinformation and harsh criticism about its adversaries. After China sent assistance to Italy in March 2020, Chinese bots amplified the hashtags #forzaCinaeItalia (Go China and Italy) and #grazieCina (Thanks China). Many of the inauthentic accounts also posted content praising Hong Kong’s leaders and criticizing protesters. In September 2020, an uptick in inauthentic videos showed that Chinese actors are not afraid to adopt new tactics.

Most Chinese covert operations have had limited reach since they have been in Chinese and primarily targeted the Chinese diaspora. For the few that have also targeted non-Chinese speakers, they have been even less effective since they are targeting the diaspora and English-language audience with distracting material that either has English and Chinese subtitles or English narration. While Chinese narratives may be less effective abroad, China has specifically targeted European states, such as Serbia and Italy, with public campaigns including billboards, paid trips, and editorial stories, that promote positive Chinese narratives. Distraction and creating confusion are also part of their operation. China inserts COVID-19 narratives into non-pandemic stories to try to gain relevance and traction. For example, the editor in chief of a China-state media affiliation posted about a mass shooting in the United States, tweeting that US citizens are massacred by both COVID-19 and firearms, and downplayed comparisons of the shooting to China’s human rights violations in Xinjiang.

Vaccine propaganda and geopolitical goals

China has used the COVID-19 pandemic to secure geopolitical benefits, particularly through vaccines. It tried to position itself as the supplier of first resort for developing countries that do not have the capacity to handle the cold storage requirements of the Pfizer-BioNTech and Moderna vaccines. Through this approach, China tried to use its distribution of vaccines to bolster economic and political influence in the developing world.

As early as May 2020, Xi was promising to make China’s vaccines a global public good which would be distributed at a reasonable price. With the United States initially shying away from equitable global vaccine distribution efforts, China’s narrative of international leadership attempted to portray China as the solution to COVID-19 instead of the problem and the source of the virus. China’s focus on the developing world, and Africa in particular, has not been limited to vaccines.
Chinese embassies in Africa were the most likely to retweet disinformation about the US origins of the virus, potentially because China believes Africans are more vulnerable to health disinformation after the Soviets spread disinformation about HIV/AIDS.¹²⁰

In order to improve transparency and counter a history of bribery and poor safety standards, Chinese vaccine makers Sinopharm and Sinovac conducted clinical trials in coordination with other governments.¹²¹ Not only do vaccines give China an important soft-power boost, but China is likely attaching strings to the purchases. Uyghur activists have been concerned that Turkish promises to step up counterterrorism cooperation along with vaccine purchases will endanger the large Uyghur community in Turkey.¹²² Other experts are particularly concerned that China will use the pandemic to advance its global governance ambitions through the Belt and Road Initiative (BRI).¹²³ Xi mentioned his willingness to create a community of common public health destiny.¹²⁴ Yet, the WHO has noted that it has “very low confidence” in both Sinopharm’s ability to prevent COVID-19 and the data that Sinopharm has provided.¹²⁵ As of October 2021, poor COVID-19 testing results out of Brazil and low public confidence in Chinese vaccines show that the effectiveness of China’s vaccines, and the success of its vaccine diplomacy, is still an open question.¹²⁶ Overall, China’s domestic COVID-19 vaccine development has been slow and Sinovac has not been effective at combatting the various COVID-19 variants such as Omicron.¹²⁷ Despite weak vaccine performances, China refuses to grant approval to Pfizer-BioNTech.¹²⁸
Sino-Russian Overlap and Coordination

During the pandemic, researchers have noted several instances of narrative overlap between pro-Kremlin and CCP sources. Both actors borrowed various tactics from each other’s tool kits. There is, however, very little evidence to support the idea of policy coordination between Russia and China based on their COVID-19 IOs. Nevertheless, it is important to note that Russian and Chinese officials have promoted each other’s messages on social media and have reflected the same talking points.129

The most explicit Sino-Russian cooperation in the information environment has been collaboration agreements between state media outlets.130 This collaboration has continued during the pandemic with a China Daily article in December 2020 stating, “Digital media from China and Russia should ... jointly fight against attacks and provocations from Western countries, [and] establish a healthy international public opinion environment.”131 In October 2020, foreign ministers from both countries called for strengthening media cooperation.132 This was further reinforced during the 2021 China-Russia Internet Media Forum, where the theme was “Promoting Exchanges and Mutual Learning, Deepening Practical Cooperation.”133 For several years, state media outlets in Russia and China have produced common messaging to counter Western influence and promote positive stories about themselves.134 In the long term, this exchange of “best practices” will deepen through mechanisms like the China-Russia Media Forum as both countries seek to create an alternative information ecosystem.135 State media in both countries can learn from the other; China has moved faster in using its media apparatus to export digital authoritarianism, while Russian media still receives substantially more engagement than China’s.136

From November 2019 to March 2021, two out of five of the most retweeted outlets by CCP-linked accounts were RT and Sputnik, which allowed for circular amplification of COVID-19 disinformation between Russia and China.137 While many Western countries and platforms have recently banned RT and Sputnik, the CCP still allows Russian media to operate in China and continues to promote Russian disinformation and propaganda.138 Some of China’s most inflammatory disinformation came from Global Research, a pro-Kremlin conspiracy site.139 China latched on to the Russian narrative that the Lugar Center in Georgia, which Russia falsely claims is operated by the US Biological Threat Reduction Program, is part of a secret US bioweapons program.140 Pro-Kremlin media has been largely positive about China, and even though Chinese media sharply criticized the US border closure to Chinese travelers, Russian authorities received little criticism from China when they closed their border.141 While China’s global public image has been damaged during the course of the pandemic,142 Sino-Russian relations continued to grow, most notably when Putin and Xi met at the opening ceremony for the 2022 Winter Olympics in Beijing, releasing a 5,000-word joint statement on their shared view of the world.143 However, Russia’s invasion of Ukraine since then has complicated the relationship, with China trying to position itself as a neutral arbiter of peace while Russia is requesting military aid from Beijing. At the time of writing, it is unclear which direction China will head.
COVID-19 meta-narratives have also been relatively similar: both Russia and China have criticized democracies as corrupt and inept while praising their own global leadership and pointing to a lack of Western leadership.\textsuperscript{144} Circular amplification and state media collaboration agreements come from the mutual interests driving Russian and Chinese digital information operations.\textsuperscript{145} Their complementary geopolitical objectives include undermining liberal democratic norms and institutions, weakening cohesion among democratic allies and partners, reducing US global influence, and advancing their own interests.\textsuperscript{146} Both countries want a decoupling of the United States and Europe, and they share many of the same political assets in Hungary, Serbia, and the Czech Republic.\textsuperscript{147} During the pandemic, China joined Russia in calling sanctions on Russia inhumane as a result of the virus.\textsuperscript{148} Russia and China also accused the West of hoarding vaccination shots while Chinese companies pledged to produce more than 260 million doses of Russia’s Sputnik V vaccine for developing countries.\textsuperscript{149} Moscow and Beijing’s vaccine cooperation and solidarity further pushes a narrative that the West is selfish and that Russia and China are serving a global public good.\textsuperscript{150}

Nuances in COVID-19 narratives show that the threat of Sino-Russian IO cooperation is serious, but important differences between the two countries will persist. China placed a much greater emphasis on promoting a shared community and had a larger focus on its global responsibility than Russia.\textsuperscript{151} Normative affinity often makes it appear that Russia and China have a coordinated approach, even if in function that is not the case.\textsuperscript{152} For the foreseeable future, divergent geopolitical outlooks will likely prevent China from acting as aggressively as Russia in the information environment. The beginning of the pandemic provided a prime example, with Russian actors overtly spreading disinformation in January 2020 before China.\textsuperscript{153} The long-term geopolitical implications of the war in Ukraine, which are yet to be seen, and the position that Russia and China take coming out of the conflict will have a profound impact on their geopolitical objectives and their approach to information warfare.
Building off existing research conducted by other think tanks and research institutions, CEPA’s researchers collected and analyzed original data on the narratives and tactics that Russia and China used in their IOs. CEPA collected English-language website articles and social media messaging from Russian and Chinese government officials and state-backed media from March 2020 through March 2021. By determining rhetoric choices and the prioritization of narratives
throughout the 144,207-piece database, we were able to isolate and analyze the unique tactics that Russia and China used to advance their IOs across the transatlantic space throughout the COVID-19 pandemic.

LESSONS LEARNED

As the world experienced vaccinations and coronavirus variants at different rates, Russian and Chinese COVID-19 IO narratives and tactics continued to evolve. Alongside the evolution of IOs in 2021, CEPA’s data largely supported earlier findings that the CCP deployed more destructive and conspiratorial narratives than in its previous forays into the information space, while Russia recycled previous narratives and did not substantially change its approach from previous crises. Yet the data also raised new questions and prompt a reexamination of the extent to which China is following Russia’s playbook in the information environment.

MYTH

# 1

Authoritarian learning only flows from Russia to China

FACT

While China has borrowed some aspects of Russia’s information warfare playbook, Russia is also learning from China and reviving Soviet-era tactics. Like China, Russia is increasing its media presence in strategic regions to boost its soft power and spreading the narrative that Sputnik is a public good rather than a for-profit vaccine.
Russia has innovated in spreading vaccine disinformation throughout Europe. As vaccination campaigns in the United States and the United Kingdom encountered problems with demand instead of supply, Russia’s misleading vaccine reporting found fertile ground. Vaccine disinformation also presented serious challenges in developing countries where citizens already do not trust the West and where Russia and China often have large media presences.

**MYTH #2**

**China is copying the Russian playbook and spreading disinformation globally**

**FACT**

China has selectively borrowed from Russia’s playbook, but for the most part, they have not adopted Russia’s firehose of falsehoods strategy which is characterized by inconsistent, even contradictory messaging.

In 2020, while China aggressively defended its response to COVID-19 and criticized Western efforts to combat the virus, its narratives remained mostly positive, kept China at the center of attention, and showed remarkable consistency between state-backed outlets and diplomats. Even though some official sources circulated disinformation on COVID-19’s origins and Western vaccines, the transatlantic policy and research community focused more attention on China’s destructive disinformation than the data suggest is warranted. This is not surprising considering the increasing bipartisan and transatlantic consensus on
the need to counter Chinese influence in the information environment and the shock of Chinese disinformation spreading globally for the first time during an international crisis.

While some policymakers are worried about Sino-Russian convergence in the information environment, in reality this faces practical obstacles. Chiefly, China insists on narrative consistency, while Russia opens a firehose of falsehoods.\textsuperscript{158} State-owned Russian media contradicted not only one another on COVID-19 narratives but also official Russian sources like the Russian Ministry of Foreign Affairs. Even though official government sources largely stayed clear of promoting disinformation on the virus’s origins, vaccines, or other COVID-19 topics, the broader pro-Kremlin information ecosystem showed no such restraint.\textsuperscript{159} On the other hand, the rigidity of the CCP’s control over the Chinese information environment ensures that disinformation and propaganda from state media will differ little from that spouted by government officials. Though this gives the CCP
more control over its COVID-19 messaging, it also means the Chinese are much less successful than the Russians at targeting content to specific audiences, even with substantially more resources.

**CHINA**

During the pandemic, China emerged with much more assertive IOs around COVID-19 than previous campaigns. Contrary to popular belief, China’s top messages remained relatively positive and focused on its response to the virus. Nonetheless, China’s strategy shifted during the pandemic. While still keeping China at the center of its narratives, the fourth-most-popular narrative in the data set from Chinese sources focused on the Western response to the virus and Western blame of China, especially from the United States. Though still largely avoiding disinformation, China’s destructive and critical narratives about other countries were a departure from its pre-COVID-19 tool kit and a step closer to the Russian playbook.

China’s ability to effectively respond to COVID-19

At the start of 2020, the CCP’s messaging focused mostly on China and portrayed the country’s fight against COVID-19 in a positive light. When the world’s attention centered on China in January and February 2020, the CCP spread overwhelmingly positive narratives with the goal of making the world feel sympathy for the country suffering from the disease. As the virus began spreading widely beyond China in March 2020, Chinese narratives shifted to focusing on China’s donation of masks and supplies to other countries. Keywords included “supplies,” “assistance,” “aid,” “assist,” and “deliver.” The CCP sought to tell a story that China had defeated the virus at home and was now helping other countries do the same. CEPA found that as early as February 12, 2020, Chinese state media stopped any mention of Wuhan when talking about the virus’s origins, confirming earlier research and analysis. The CCP was already planning for a years-long effort to discredit the international scientific consensus that the virus began in Wuhan in late 2019, with data gathered by CEPA showing efforts to change the narrative from China being seen as the source of the pandemic to leading the fight against it.

China’s assistance to other countries

When Chinese COVID-19 narratives began focusing on China’s assistance to other countries, certain regions took priority, showing China’s use of the pandemic for geopolitical ends. Under Xi, China has increasingly sought a leading role in the Global South, and the pandemic was no exception. When amplifying the propaganda that China was helping the world respond to COVID-19, it was no coincidence that South Africa and Ethiopia were prioritized as keywords.

Chinese state media outlets, including newswire Xinhua, have signed content-sharing agreements with news outlets in many African countries. It is often cheaper for Africans to access Xinhua than Western newswires. Xinhua may be less sensational and conspiratorial than the state-backed nationalist tabloid *Global*
Post-Mortem: Russian and Chinese COVID-19 Information Operations

Times, or Russian outlets like RT and Sputnik, but it frequently leaves out important context on stories, especially pertaining to COVID-19. While Russia tailors existing media brands or creates new ones to cater to specific audiences in target countries, Chinese brands’ offerings are largely a reflection of their history within China. Xinhua serves as a type of newswire, People’s Daily and China Daily serve as party mouthpieces, Global Times serves as a tabloid, while broadcaster CGTN mostly offers the same messaging as People’s Daily and China Daily but in video form. For each, the only receptive audience will be ones already supportive of the CCP, a small and vanishing market. While China’s production of content outpaces Russia’s, engagement lags far behind.

Criticizing the West for blaming China

By highlighting its own assistance to Africa, China paints the Western response as self-centered and deliberately neglectful of suffering across the developing world. Self-inflicted wounds by the West helped with these efforts, such as when French scientists suggested that vaccines should be tested in Africa.

Nonetheless, China’s top COVID-19 narrative that largely used negative rhetoric focused on Western blame of China instead of the West’s domestic and international...
response to the virus. This once again showed China’s eagerness to put itself at the center of its narratives and its frantic mission to control information about the virus’s origins and China’s poor initial containment efforts. Keywords included “claim,” “accuse,” “blame,” “attack,” and “rumor.” China’s wolf warrior diplomats went out of their way to criticize any country that dared to question China’s transparency. China even started imposing curbs on some Australian imports after Prime Minister Scott Morrison called for an independent investigation into the virus’s origins.\textsuperscript{167} China continues to reject any Western blame for its handling of the virus, including renewed attention in May 2021 to the lab-leak theory.\textsuperscript{168}

China’s coverage of the West during the pandemic has not been limited to criticizing Western blame of China. There was significant discussion of deaths from COVID-19 in other countries, most notably Brazil, Italy, Spain, Germany, and the United States. China wanted to show the West’s failure to contain the virus, especially once China
had largely brought the virus under control at home. At the same time, China’s coverage of lockdowns and the economic impact of COVID-19 was expressed with slightly more positive sentiment than Russia’s. Considering early Western criticism of China for its harsh lockdown, China largely avoided denunciations of Western lockdowns. This is in sharp contrast to the Russian media, which regularly criticized the West for taking the same actions as the Russian government while playing up internal divisions around Western culture wars.

Other narratives

CEPA’s analysis found that while most of the CCP’s COVID-19 narratives were propaganda about China’s success in containing the virus compared with the West’s failures and criticism of China, the party still pushed significant disinformation about the virus’s origins. More recently, China has questioned the efficacy and safety of Western vaccines, even while its own vaccines have not prevented new outbreaks. Without targeting messages to specific left – and right-wing audiences, China has not been as critical of vaccines overall as Russia and in 2021 prioritized messaging about Chinese-produced vaccines.

RUSSIA

Russian propaganda outlets followed “the golden rule of social media marketing” — 80% of content should inform, delight, or entertain, and only 20% should reference the brand — and the most common category of content for Russian outlets publishing in English were simple updates on COVID-19 cases. This base of reliability allowed state media to draw in users for helpful updates, enabling the seamless insertion of content more supportive of Russian goals. With separate brands targeting right-wing and left-wing Anglophones, Russian media could amplify domestic extremists on its widely followed accounts across Twitter, YouTube, and, to a lesser extent, Facebook, aggravating pandemic-induced unrest. Beyond attacking the US response, Russian media and officials looked to portray Russia as a global humanitarian and scientific leader, offering medical relief to countries in need and far outstripping rivals in the race to a vaccine. Nonetheless, domestic disinformation in English-speaking countries often drowned out overt Russian propaganda on COVID-19. This might have reduced the direct impact of Russian IOs, but by seeking to amplify narratives that were already circulating in fringe political ecosystems, long-standing goals of Russian propaganda were achieved, including discrediting US institutions, sparking domestic turmoil, and undermining US democracy.

Create a reliable base of trust on the facts

Russia’s most common COVID-19 content provided only updates on deaths and cases. Total counts and trends generally fell within the mainstream of estimates. Before exaggerating the pandemic’s severity to left-leaning audiences and understating the threat to right-leaning ones, these narratives laid the foundation to distort and manipulate public opinion by creating a base of trust and establishing Russian outlets as a reliable source of information on COVID-19. This content had
a negative sentiment, reflected in the prevalence of words like “death,” “infection,” and “hospitalizations,” and was in line with an understandable and near-universal portrayal of the pandemic spread as negative.

Use the established trust to promote extremist political messages

The trust-building content reflects Russia’s sophisticated marketing approach, characterized not just by industry best practices but also by advanced audience segmentation. In both the United States and the United Kingdom, all under one RT banner, RT possesses a right-wing brand (RT America, RT UK), mainstream brands with veteran commentators (Alex Salmond), and a left-wing brand (with shows like Watching the Hawks, Going Underground). Russia has a unique ability to swing across the political spectrum from one show to the next. While the outlets create the lion’s share of their own content, they have long given platforms to US extremists, from avowed fascists to dedicated communists, to amplify existing messages popular on the fringe.

When COVID-19-related lockdowns began in the United States in March 2020, RT’s conservative outlets portrayed the coming of a totalitarian state, declaring, “Americans won’t stand for it” and warning of “destructive mass protests” as “Western countries that forever preach about the authoritarian impulses of certain foreign states suddenly began to resemble the real autocrats.” In line with narratives already circulating in right-wing circles in the United States and the United Kingdom, one RT op-ed claimed lockdown-induced suicides to be a greater threat than the pandemic. For left-wing audiences, Watching the Hawks focused on corporate profiteering by Big Pharma during the pandemic to rumors of landlords exchanging rent for sex from downtrodden tenants to continued budget expansions for the US military.

As the US response to the pandemic sputtered, RT highlighted the failings of mostly Democratic governors and gave minimal attention to the federal response. Even on left-wing outlets, criticism of then President Donald J. Trump’s response was muted, with the focus instead on the failings of the United States at large and inequities within the health care system. Right-wing outlets used the many missteps in the US response to cast doubt on the competence of government responses generally and on the US health care system.

Raise doubt about Western vaccines, promote Sputnik V

The frequency of Russian reporting on COVID-19 case numbers followed broader trends, peaking in spring 2020 and subsiding as cases in the United States initially receded. On June 18, 2020, Russia began Phase I testing for its Sputnik V vaccine and on September 4 it announced preliminary results that the vaccine was safe and effective. When an open letter in Lancet questioned the reliability of the Russian results, state media and officials went on the offensive. RT interviewed the scientists behind the vaccine; adopting left-wing criticism, one RT op-ed asked, “Are Western attacks on the Russian COVID-19 vaccine a corporate cold war against
Post-Mortem: Russian and Chinese COVID-19 Information Operations

RT then began casting doubt on the safety of Western vaccines, such as AstraZeneca’s. While efforts to inspire trust in Sputnik V gained little traction with audiences and, with the vaccine unavailable to most Anglophone audiences, had little relevance, RT reported breathlessly on side effects from Western vaccines. Pfizer continues to receive a disproportionate share of negative coverage, likely because Russia views it as Sputnik’s main competitor.

Evidence of Sino-Russian coordination?

While the data analysis shows little evidence of direct coordination between Russia and China, the comparative success of China’s COVID-19 response proved a useful foil for Russia’s depiction of Western governments and media. One op-ed declared, “For it seems that locking down around 60 million people in China is tantamount to a gross human rights violation, while doing the same to 60 million Italians is a bold step forward.” An RT report amplified Chinese messaging that “Democracy has seen 500,000 US Covid deaths.” Russian reporting on China, while largely positive in its portrayal, for the most part fit into existing Russian campaigns rather than amounting to a directed attempt to improve China’s image. While Russia did not disparage Chinese vaccines, it also did not actively promote them, a sign that economic interests still trump circular amplification of propaganda.
COMPARING AND CONTRASTING RUSSIA AND CHINA

One of the biggest misconceptions of 2020 was that China’s IO tactics were increasingly converging with Russia’s. China spread disinformation on a global scale about the origins of the virus and mRNA vaccines, but most of its IOs continued to be biased propaganda with a large focus on China and global narratives about China. Russia’s diverse range of state-backed outlets spread fear among right-wing and left-wing audiences in Europe and North America about lockdowns and Big Pharma’s vaccine development. China’s approach was less nimble, with limited attempts to spread narratives that targeted specific audiences in the West.

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<th>NARRATIVE</th>
<th>RUSSIA</th>
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<td>1. The US government is severely incompetent, demonstrated by its botched pandemic response</td>
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<td>2. The inability of Western governments to effectively combat COVID-19 shows that they are incompetent</td>
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<td>3. General case counts and global COVID-19 updates</td>
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<td>4. Advertisement of domestically-produced vaccinations</td>
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<td>5. Lockdowns trigger violence and misery, infringe on personal liberties, and are largely ineffective</td>
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<td>6. Discussion of the origins of COVID-19</td>
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<td>7. China leads the charge in providing medical aid and knowhow to struggling nations</td>
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<td>8. COVID-19 has sent the US into an irreversible downward spiral</td>
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<td>9. The West derails global efforts to combat COVID-19</td>
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<td>10. Outlook on domestic and global economic recovery</td>
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Data science techniques revealed Russian actors’ strong emphasis on sentiments more closely associated with fear, in contrast to their Chinese counterparts, who more frequently employed rhetoric associated with trust. This finding supports previous conclusions on how each actor approaches global IOs; while Chinese texts frequently present an internal focus on China’s success conveyed with trust-based rhetoric, the Russian approach tends to employ more fear-mongering tactics and center discussion on the failures of others. In line with China’s prioritization of propaganda over disinformation, sentiment analysis revealed that Chinese narratives were on average more objective than Russian ones.

While Chinese IOs maintained remarkable consistency among state media, state-backed tabloids like Global Times, and diplomats, the cadence of activity varied dramatically depending on the diplomatic post. In contrast to a coordinated Russian information-warfare strategy, most Chinese embassies in Europe remained relatively quiet about the virus. Exceptions to narrative consistency and relative silence tended to get the most attention. For example, when Zhao, the Chinese foreign ministry spokesperson, retweeted virus origin disinformation from a pro-Kremlin outlet, at least a dozen Chinese embassies amplified the story along with coverage in several state media outlets. Certain wolf warriors were more assertive than typical Chinese narratives, including an anonymous Chinese diplomat in France who blamed the French for letting the elderly die in their nursing homes, yet there was little strategy behind this approach. Ambitious diplomats were likely fighting for career advancement instead of serving a broader purpose in China’s IOs. Most Chinese ambassadors act like more typical diplomats and some analysts believe that Xi’s call for China to be loved and to speak more softly was effectively a call for diplomats to tone down their rhetoric in the face of potentially irreparable reputational damage. At the same time, Xi used provocative language during the CCP’s 100th anniversary celebrations, potentially undermining any call to soften China’s diplomatic approach.

While consistency makes it easier for the CCP to control its information space and speak with a unified message, it also undermines its IOs. Even with substantially more resources, by not differentiating its narratives for right – and left-wing audiences, Chinese propaganda fails to move Western public opinion in the way that Russian disinformation does, but China is increasingly adept across the developing world. With its firehose of falsehoods method, which encourages contradictions among channels and even within them, Russia is more sophisticated at targeting Western Anglophone audiences. Through this approach, malign Russian narratives more easily enter political conversations across the West. Russia’s goal is to make people believe that the truth can never be known while providing convenient storylines that fit into people’s right-wing or left-wing worldviews.

China, on the other hand, attempts to tell one story with full certainty, which is much less successful. One exception is Facebook, where China already owns the five most-followed news pages. China has also tried to gain prominence with a more traditionally left-wing audience through ideologically communist references to workers’ rights, but this ultimately falls flat because its promotion is primarily focused on the CCP. If China were to target left-wing groups without as
clearly supporting the CCP, it could likely have more impact on its audience, which currently engages with Chinese content at very low rates.

If China has a geographic strategy in the information environment, it is targeting “unclaimed” audiences, mostly in Africa. It remains to be seen whether this strategy can work, but it does help that Chinese and Russian vaccines were often the first to arrive in the developing world. Russia also has a strategy to focus its resources specifically on Latin America, Africa, and the Middle East. Analysis from Stanford University showed that Russian media in these regions are often less conspiratorial and sometimes even critical of Russia, potentially to spread Russian influence while lending a veneer of credibility and independence to the media outlets that they lack among mainstream audiences across much of the West. This has proved relatively successful, with RT en Español’s Twitter engagements outpacing RT’s by a 2:1 margin.
One understudied aspect of Chinese and Russian COVID-19 narratives was their promotion of domestic scientific prowess. Sputnik V showed Russian scientific prowess and harkened back to the glory days of Soviet science. While many medical experts were shocked when Russia announced the initial success of Sputnik V before advanced phases of clinical trials, subsequent trials have shown that the vaccine is relatively successful.\textsuperscript{189} China’s vaccines, on the other hand, have been less effective, with reports frequently surfacing about communities and entire regions being infected despite receiving the shots.\textsuperscript{190} Though Russian messaging around domestic scientific prowess mostly focused on Sputnik V, early in the pandemic, a common Chinese narrative was that traditional Chinese medicine could play a key role in defeating the virus.

**IMPLICATIONS OF THE DATA**

This research and data have important implications for countering malign IOs from Russia and China, which will require different policy responses in different places correlating to the diverse strategies from Moscow and Beijing. Russia is still better at spreading diverse narratives depending on the target country, but through authoritarian learning and impressive resources, China could copy this...
Post-Mortem: Russian and Chinese COVID-19 Information Operations

Measuring the impact of authoritarian IOs is challenging, but Xi’s call for Chinese diplomats to set the “right tone” in diplomatic engagement could be a sign that the CCP is worried about overreach with its wolf warrior diplomacy. Western leaders should continue to call out unprofessional and aggressive diplomacy from Moscow and Beijing, which can help drive public opinion of their malign IOs. Insights from CEPA’s data set include:

**Geographic differences in IOs:**

- Chinese media outlets had largely consistent COVID-19 coverage throughout the West, though the country’s diplomats in certain countries, notably France, were more eager to engage in wolf warrior diplomacy than in others. These were likely efforts by Chinese diplomats to advance their careers instead of a sophisticated strategy by China to place the most undiplomatic officials in key posts.

- Beijing prioritized narratives that would resonate in Africa. The keyword “cold” was used 138 times in tweets over three months to amplify the message

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**MYTH #5**

All Western vaccines are treated equally by Russian and Chinese information warriors

**FACT**

China has sought to sow distrust in mRNA vaccines, but mainly to boost the adoption of its own vaccines that don’t require advanced freezers and to show that China’s vaccines are global public goods instead of for-profit vaccines. Russia has recirculated older anti-vaxxer narratives that target audiences on the right and left. Russian attacks prioritized Pfizer over other inoculations.
that China’s vaccines could be more easily used in the developing world than Western vaccines, which required advanced freezers.\textsuperscript{193}

- Russian messaging was more nuanced throughout the West depending on political circumstances. Within certain countries, especially the United States, Germany, and France, Russian narratives were consistently more negative toward left-wing state-level leaders than those on the right.
- While outside the scope of this paper, it is worth noting that China is investing heavily in media in Francophone Africa, a region with few competitors and the potential for Chinese content to move public opinion.

**Russian and Chinese coordination and divergence on IOs:**

- China has borrowed some aspects of the Russian playbook, but the CCP is not necessarily following it as closely as researchers believed at the start of the COVID-19 pandemic.\textsuperscript{194}
- Beijing is pursuing global IOs with Chinese characteristics, including consistency across messengers, prioritization of narratives that resonate in the developing world, and a greater reliance on propaganda than disinformation.
- Russia’s IOs remain more sophisticated and mature, with China still resorting to cheap amplification networks to manufacture consensus.\textsuperscript{195}
- Researchers have been concerned that China will emulate Russian information-warfare tactics, but in many respects, authoritarian learning flows both ways and Russia is also learning from China. Like China, Russia is increasingly controlling the free flow of information, deepening media partnerships in the developing world, making “goodwill” donations, and spreading the narrative that Sputnik is a public good rather than a for-profit vaccine.
- Both countries are using visual content like memes and cartoons while also recruiting social media influencers to spread their toxic narratives. Content creators and sharers on TikTok and other platforms with millions of followers have worked or continue to work with Russian and Chinese state media.
- There is little evidence of explicit Sino-Russian coordination in the information environment, but talent sharing between state media is an underexplored threat. There is also a growing overlap in the influencers, commentators, and op-ed writers used by Russia and China.

**Strategic goals and impact of Russian and Chinese IOs:**

- Russian and Chinese IOs fit with their broader geopolitical goals. Russia seeks to destroy the global order to strengthen its relative power, while China selectively undermines the West to increase its absolute power within the existing global order.
• Measuring impact of Russian and Chinese IOs is challenging, but at least in the developed world, the COVID-19 response from the two authoritarian actors failed to positively sway public opinion.

• China has more resources than Russia, but its content gets substantially less engagement and has limited impact.

**METHODOLOGY**

**Data collection**

The data in this study were collected from March 2020 to March 2021 from the websites and social media accounts of all large Russian and Chinese state-owned broadcasters, government sources, and embassies across the globe. Collected in the dataset are all English-language news articles and social media posts these accounts published during this time that contain one or more of the following terms: “COVID,” “corona,” “pandemic,” “lockdown,” or “quarantine.” Reflecting the total number of texts that fit these criteria, there are 144,207 documents in the dataset. Complementing the data is desk research incorporating outside sources, including primary sources from Russia and China, as well as CEPA’s findings from *Information Bedlam*.

**Data preprocessing**

All texts were cleaned of stopwords – common English words that add little thematic meaning to a document – through use of the Snowball English-language stopword list, included in the RStudio stopwords package. Additional stopwords removed from the texts during topic modeling were those common to most documents in the corpus, including any variation of “COVID” or “corona,” “illness,” “infection,” “virus,” “pandemic,” “epidemic,” “disease,” “outbreak,” and “quarantine.” Additional preprocessing steps included converting all text to lower case and removing numbers and punctuation from the texts.

**Building and tuning the model**

The 144,207 texts in the dataset were separated into a subset of 89,729 documents published by Chinese actors and another of 54,478 documents published by Russian actors. Individual models were created for each dataset to deduce primary topics unique to each actor's information operations.

Regarding parameter selection, the LDA (Latent Dirichlet Allocation topic modeling) requires the number of K values or clusters to be specified by the programmer. These models were programmed to identify the top six topics within each of the two sets of texts. These optimal K values were determined by examining model output from a variety of K values and assessing the interpretability of results, in tandem with selecting the K value associated with the highest topic coherence score.
In terms of hyperparameter selection, an alpha value of 0.1 was used in both the LDA model fit to the Chinese texts and its counterpart fit to the Russian corpus. This was selected since it is often regarded as the default alpha value for the LDA model.

**Sentiment Analysis Procedure**

Using data science methods, researchers scored the texts in each of the identified topics according to the degree to which they contained language associated with subjective versus objective content and rhetoric conveying the emotions of fear versus trust.

To measure objectivity, we used the TextBlob library, which can process a text and provide a score indicating whether the document’s content possesses greater features of subjective or objective reporting. In this context, objective material is defined as factual information, while subjective material tends to contain emotion and espouse judgments or personal opinions. This is a lexicon-based approach to natural language processing, meaning the algorithm uses a dictionary containing likely rankings for individual words in order to generate these scores. Each word in a text is granted a ranking, and then these individual scores are combined into a single value, indicating the presence of subjective versus objective rhetoric in a larger document.

The NRC Word-Emotion Association Lexicon was employed for the fear versus trust score. This tool also uses a lexicon-based approach to natural language processing wherein words in an English dictionary are ranked based on the degree to which they are associated with eight fundamental emotions: anger, fear, anticipation, trust, surprise, sadness, joy, and disgust. This dictionary is then used to assess whether an entire text contains rhetoric associated with these eight emotions and in this case focused on fear and trust.
OWNING THE CONVERSATION

ASSESSING RESPONSES TO RUSSIAN AND CHINESE INFORMATION OPERATIONS AROUND COVID-19

As Russia and China's tactics evolve, this section examines whether Western institutions, including governments, digital platforms, and nongovernmental organizations (NGOs), have been able to counter information warfare around this unprecedented crisis. This section explores a broad range of initiatives and responses to counter COVID-19 disinformation coming from Russia and China, and to strengthen societal resilience more broadly. Because addressing this challenge requires a whole-of-society approach, this section highlights government, technology, and civil society interventions, both in Europe and the United States, identifying what works and where there are existing gaps.

Of note, the interventions and related assessments presented here are based on data available at the time of writing. Governments regularly pass new regulations and measures, and digital platforms continue to evolve their policy, product, and enforcement actions in response to COVID-19 disinformation.

GOVERNMENT INTERVENTIONS

While initially caught off guard by the information crisis that accompanied the pandemic, over the last two years the US federal government, select European nations, the EU, and multinational institutions have made a series of interventions to counter COVID-19 IOs from Russia and China.

US Federal Government

With significant spikes in COVID-19 cases, especially following variants such as Delta and Omicron, the US government has been taking proactive measures to counter COVID-19 disinformation. In 2021, US Surgeon General Vivek H. Murthy put out an advisory on building a healthy information environment to counter COVID-19 disinformation. The focus of this advisory is to equip the US public with the best resources and tools to identify both misinformation and disinformation so that the US public can make the most informed choices; address health disinformation in local communities; expand research on health disinformation; work with digital platforms to implement product designs, policy changes, and their enforcement; invest in long-term resilience efforts to counter COVID-19 disinformation; and use the power of partnerships to convene federal, state, local, tribal, private, and nonprofit leaders to identify the best prevention and mitigation strategies.
Similarly, the Cybersecurity and Infrastructure Security Agency (CISA) in the US Department of Homeland Security (DHS) put forth a COVID-19 disinformation tool kit to educate the US public about COVID-19 disinformation, provide the best resources, and help the public understand credible versus misleading content. The tool kit calls out Russian and Chinese state-sponsored elements as some of the key actors pushing and amplifying COVID-19 disinformation. As DHS/CISA point out, the Kremlin and CCP’s goal is to create “chaos, confusion, and division ... and degrade confidence in US institutions, which in turn undermines [the US government’s] ability to respond effectively to the pandemic.”

The US Department of State’s Global Engagement Center (GEC) continues to be the US government’s interagency center of gravity for understanding, assessing, and building partnerships to counter foreign state sponsors (and non-state sponsors) of disinformation and propaganda. This includes understanding and assessing disinformation activities from Russia and China globally. The GEC partners with civil society, research, and academic institutions to understand Russian and Chinese disinformation and malign influence. Of note, in August 2020, the GEC released a special report on the pillars of the Russian disinformation and propaganda ecosystem, which highlights Russia’s tactics and narratives to spread COVID-19 disinformation to targeted countries and populations. Considering extensive Russian disinformation and propaganda in Ukraine, the State Department created a website aimed at disarming disinformation, which provides credible content, informs the public about disinformation, and exposes disinformation from Russian (and other) actors.

In February 2021, the US Agency for International Development’s (USAID’s) Center of Excellence on Democracy, Human Rights, and Governance released a Disinformation Primer, which highlights counter disinformation programs to deter and prevent disinformation from China, Russia, and other malicious actors. This primer specifically focuses on building societal resilience in developing nations, strengthening media development, promoting internet freedom, and supporting democracy and anti-corruption-related programs.

The US government has also taken strong actions through more traditional measures of statecraft. For example, in April 2021, the Biden administration issued sanctions against Russia for a series of malign activities, including cyberattacks, election interference, corruption, and disinformation. These sanctions were not specifically directed at COVID-19 IOs necessarily but were broadly meant to impose costs for Russian malign activities, including disinformation.

The US Congress also proposed a series of measures to limit the spread of disinformation, promote digital literacy, and keep digital platforms accountable. These measures include a plan to appropriate $150 million for countering propaganda and disinformation from China, Russia, and foreign non-state actors through the Strategic Competition Act. However, getting bipartisan congressional approval to pass disinformation-related legislation has not been easy. For example, efforts such as the Honest Ads Act, the Digital Citizenship and Media Literacy Act, and the Protecting Americans from Dangerous Algorithms Act have been introduced in Congress, but have not passed. Furthermore, in order to address
the spread and promotion of health-related disinformation on digital platforms, US Sen. Amy Klobuchar (D-MN) introduced the Health Misinformation Act, co-sponsored by US Sen. Ben Ray Luján (D-NM), to create an exception to Section 230 of the Communications Decency Act, which gives digital platforms legal immunity from liability for content posted by users. This legislation was introduced in July 2021; it is still pending approval.

**European Governments and the European Union**

Compared to the United States, the EU and several European governments have been ahead of the curve in countering Russian and Chinese disinformation and malign influence, as well as keeping digital platforms accountable. This is largely because Europe, particularly Central and Eastern European states, have been dealing with malign influence, disinformation, and misinformation campaigns; election interference; and digital authoritarianism from Russia for a longer time and, to a lesser degree, from China.

**European Union**

Most notably, in 2015, the EU created the East StratCom Task Force, which identifies, monitors, and analyzes the impact of Russian disinformation on targeted
Following earlier efforts, in 2020, the EU adopted the European Democracy Action Plan (EDAP) with a focus on promoting free and fair elections, strengthening media freedom, and countering disinformation. As part of the EDAP, the EU strengthened the Code of Practice designed to keep online platforms and advertisers accountable in countering disinformation. To receive credible information on the pandemic and vaccines and prevent malicious information from actors like China and Russia reaching the European public, the signatories to the Code of Practice created a COVID-19 monitoring and reporting program to curb COVID-19 disinformation on digital platforms. Finally, the European Parliament has given initial approval to the Digital Services Act, which will enable the EU to conduct greater scrutiny and regulation of technology companies and digital platforms, including monitoring their policies and enforcement actions, to create a healthy information ecosystem.

The United Kingdom

The United Kingdom’s Department for Digital, Culture, Media, and Sport established a counter disinformation unit to monitor disinformation coming from state actors as well as non-state actors. In addition, UK Minister of State for Digital and Culture Caroline Dinenage launched a digital literacy strategy for ordinary citizens to combat COVID-19 and other disinformation to ensure people know how to distinguish credible from inauthentic content, think critically, and act responsibly online.

Sweden

Sweden created a Psychological Defense Agency with the goal of identifying, analyzing, and responding to disinformation and other misleading content. As the agency explains, disinformation can be aimed at “weakening the country’s resilience and the population’s will to defend itself or unduly influencing people’s perceptions, behaviors, and decision making.” A big part of this agency’s work is to strengthen the Swedish population’s ability to withstand disinformation campaigns and defend society as a whole. Tasked with both preventive and operational measures, the agency aims to conduct its activities and operations during crises and steady state.

France

The French government has taken a series of measures with mixed results. In spring 2020, the government created the website Désinfox to combat COVID-19 disinformation and serve as a reliable collection of news on the pandemic. However, it immediately faced criticism for its selectivity of news outlets and its lack of articles critiquing the government’s response and the site was soon removed. The government also launched a website, Santé.fr, dedicated to informing citizens about health topics via articles and other resources. Due to the pandemic, it now includes information on vaccination and testing sites as well as a range of other COVID-19-related topics. The government also created an agency, Viginum, to counter foreign IOs, particularly in the lead-up to the 2022 presidential election.
Germany

In response to the increased threat of disinformation, Germany reformed its media regulatory framework in 2020, and enforced the 2020 Interstate Media Treaty. State media authorities in Germany contact online providers about online allegations that were presented without sources, images that were taken out of context, and conspiracy theories, among other harmful online content. German conspiracy counseling centers have also helped curb the spread of disinformation by treating clients who believe conspiracy theories regarding the pandemic, masks, and vaccinations. These free centers help citizens who have construed views based on false information.

“Elves”

The Baltic states have long been targets of Russian disinformation. In 2014, citizens in Lithuania established voluntary watchdog groups known as the “Elves” — a direct response to the Kremlin’s “trolls” — to flag disinformation online, report suspicious accounts, and fact-check news reports. During the pandemic, the Elves created a new task force to specifically tackle COVID-19-related disinformation and created a Facebook page to share accurate news coverage and address conspiracies and disinformation. The Elves take COVID-19 disinformation extremely seriously; two-thirds of the Elves’ administrators work in health care. Over the years, the Elves have gained more followers and have grown from 40 to more than 5,000 members active in the Czech Republic, Finland, Slovakia, Ukraine, and even Germany.

United Nations

With the rise of COVID-19 disinformation, the United Nations has taken a number of actions to ensure that citizens of the world have the most accurate, up-to-date information and the ability to identify and distinguish credible from inauthentic content. For example, UN Under-Secretary-General for Global Communications Melissa Fleming outlined the UN’s “Verified Initiative,” which is charged with countering malicious content, including content related to COVID-19. The idea behind the initiative is to provide creative and credible content in more than 60 languages. In addition, the UN engages with digital platforms to address the productive role that these platforms can play in countering disinformation more effectively. Along with traditional mediums such as the UN Information Centers, the UN uses social media to promote credible information to the public. However, given the role that Russia and China play in the UN, the international body’s ability to counter Russian and Chinese disinformation and propaganda remains somewhat limited.

World Health Organization

With so much malicious content stemming from Russia, China, and other actors over the efficacy of COVID-19 vaccines, the WHO has been the leading multinational organization and has partnered with governments, civil society organizations, and digital platforms to counter COVID-19 disinformation. In response to the COVID-
19-related infodemic, the WHO launched several initiatives over the last two years. These include partnering with the UK government to create a “Stop the Spread” public awareness campaign to encourage people to verify the credibility of the information they access and think critically about the information that is being consumed. In addition, the WHO launched a “Reporting Misinformation” awareness campaign to show the public how to effectively report disinformation and misinformation to digital platforms. Additionally, in partnership with Cambridge University and the UK Cabinet Office, the WHO developed a “Go Viral” game that exposes disinformation and teaches players how to identify false information. As part of the game, players are connected with the WHO’s “MythBusters.”

**NATO**

NATO has done extensive work to counter disinformation in collaboration and partnership with member states, media, the EU, the UN, and civil society. For example, NATO created a COVID-19 Task Force to combat COVID-19-related disinformation. Through its Public Diplomacy Division, NATO monitors COVID-19-related and other disinformation stemming from Russia and other actors and fact-checks in collaboration with the EU. NATO set up a webpage, “NATO-Russia:
Setting the Record Straight,” to expose Russian disinformation and dispel myths. NATO also conducts regular cybersecurity trainings, such as the annual Cyber Coalition exercise and the Crisis Management Exercise, which educate the entire alliance about cyber defenses. To further share best practices about cyber defense, NATO has designated training centers such as the NATO Cooperative Cyber Defense Center of Excellence, the NATO Communications and Information Academy, and the NATO School in Oberammergau, Germany, which offers training and courses on cyber defense.

G7 Rapid Response Mechanism
The G7 Rapid Response Mechanism (RRM) is another multilateral institution that has improved coordination and sharing of best practices to counter disinformation. The RRM was created in June 2018 to strengthen coordination across the G7 in “assessing, preventing, and responding” to threats to democracy, including disinformation and foreign interference. At present, this is a government coordination mechanism, with Canada serving as the coordinating agent with the other six G7 countries. The goal for the RRM is to share information about impending threats and coordinate on potential responses should attacks occur. The coordination unit produces analysis on threats and trends to anticipate threats and prepare for coordinated action. This increased coordination is a useful development from what existed prior to 2018 as democracies around the world work to counter common challenges.

Digital Platforms’ Responses
The Kremlin, the CCP, and their allies have exploited the virality of social media and citizens’ reduced ability to think critically about the information they are consuming to create and amplify false content globally. During the pandemic, sharing falsehoods has cost lives. In response to this massive challenge, digital platforms have stepped up their efforts to counter COVID-19 disinformation and misinformation. These efforts have focused on developing COVID-19-specific policies, take downs of malicious and inauthentic content, designing new product features and policy campaigns to push credible content about the pandemic, and partnering with governments, civil society, and NGOs locally and globally to address these evolving threats. While there are many digital platforms, blogs, messaging services, and providers, this report focuses on a select few: Twitter, Meta, YouTube, TikTok, and Microsoft. As mentioned previously, policies, enforcement actions, and product features change on a regular basis in response to the continuous flow of COVID-19 disinformation from threat actors. In addition, as highlighted above, a majority of these interventions have been designed to be actor-agnostic.

Twitter
Twitter has developed a comprehensive set of strategies to counter COVID-19 disinformation. These strategies focus on providing reliable information from credible sources regarding COVID-19; protecting the public conversation, which includes a mix of new policies; enforcement actions and product features; building
private-public-civic partnerships with governments, journalists, and NGOs; empowering researchers to study COVID-19 disinformation; building transparency metrics on COVID-19 disinformation, among other initiatives. For example, Twitter developed a “Know the Facts” prompt with links to reliable sources, such as WHO and vaccines.gov, to inform the public about where to go for credible information. The graphic below shows this prompt.

Separately, in December 2021, Twitter outlined a comprehensive COVID-19 misleading information policy that provides information on what content and behavior constitutes a violation of this policy. This includes misleading people about the efficacy of preventive measures, treatments, vaccines, official regulations, and other protocols. Twitter also outlined its enforcement actions; when accounts are in violation of its policies, the accounts may be removed, have their visibility reduced, or be permanently suspended. For example, in June 2020, Twitter removed more than 170,000 accounts tied to Chinese IOs that spread COVID-19 narratives.

Meta

Meta, formerly Facebook, has also put forth a number of strategies to reduce the prevalence of COVID-19 disinformation campaigns on its suite of apps, provide credible information to consumers, and partner with NGOs, verified government officials, and journalists. Among its strategies, Meta launched a COVID-19 information center (as depicted in the graphics below), prohibiting exploitive tactics in advertisements, supporting health and economic relief efforts, “down-ranking” false or disputed information on the platform’s news feed, and activating notifications for users who have engaged with misleading content related to COVID-19. In addition, the encrypted messaging platform WhatsApp, owned by Meta, has also been plagued by COVID-19 disinformation. In response, WhatsApp created a WHO Health Alert, a chatbot to provide accurate information about the coronavirus that causes COVID-19.

With Russia, China, and their affiliates spreading COVID-19 disinformation throughout the Meta family of apps, Meta has continuously removed inauthentic behavior and content originating from these two countries. For example, in December 2020, Meta partnered with Graphika, a software as a service and a managed services company, to remove coordinated inauthentic content and
accounts that originated in Russia, including 61 Facebook accounts, 29 pages, seven groups, and one Instagram account. These networks posted misleading content about COVID-19 and the Russian vaccine, among other topics, in French, English, Portuguese, and Arabic. Similarly, in December 2021, Meta removed more than 600 accounts, pages, and groups connected to Chinese IOs spreading COVID-19 disinformation, including an account falsely claiming to belong to a Swiss biologist. This account also posted misleading content on Twitter, claiming that the United States was pressuring the WHO to blame China for the rise of COVID-19 cases.

### YouTube

YouTube also established a range of policies and product features and has taken enforcement actions to curb the spread of COVID-19 disinformation and Russian and Chinese malign content. YouTube’s community guidelines prohibit medical disinformation. In addition to setting policies, YouTube has begun to label content that it believes may be spreading COVID-19 disinformation and misinformation. Like other platforms, YouTube has been working with health officials, NGOs, and government agencies to give its viewers access to authoritative and credible content about COVID-19. This includes the latest news on vaccines and tests, as depicted below.

YouTube has also taken specific actions against Russian and Chinese disinformation. For example, it suspended the German-language RT channel for one week after it violated its COVID-19 information guidelines. In response, the Russian Federal Service for Supervision of Communications, Information Technology, and Mass Media, Roskomnadzor, accused YouTube of censorship and threatened to block the service.
**TikTok**

With approximately 15 million daily active users and the appeal of younger audiences, TikTok has become a major source of information on politics, health, sports, and entertainment. Unfortunately, it has also become a source of widespread COVID-19 disinformation. TikTok’s connection to ByteDance, a Chinese multinational internet technology company, has created concerns that TikTok could be spreading digital authoritarianism, Chinese propaganda, and censorship. To that end, TikTok developed strong community guidelines to combat COVID-19 disinformation and related harmful online content, partnered with multinational organizations and government institutions, and creatively provided credible information about the pandemic. To enforce its disinformation policies, TikTok has partnered with international fact-checkers to ensure the accuracy of its content and identify disinformation threats early. TikTok promotes COVID-19 best practices through campaigns such as the #SafeHands Challenge to promote healthy handwashing, which has gained 5.4 billion views, and the #DistanceDance challenge to encourage physical distancing.

**Microsoft**

While not a digital platform, Microsoft has become a leading player in developing technology solutions, partnering with civil society and governments to counter disinformation. For example, in response to COVID-19, Microsoft created “information hubs” on its news tabs, and has put public service announcements about COVID-19 atop its search queries. Microsoft also adopted an advertisement policy that prohibits advertisements that seek to exploit the COVID-19 pandemic for commercial gain, spread disinformation, and undermine the health and safety of citizens. As part of this effort, Microsoft advertising prevented approximately 10.7 million advertiser submissions based on these criteria, 5.73 million of which would have gone to European markets. With its Defending Democracy Program, Microsoft has partnered with media organizations on content authenticity and media literacy and has been developing technical solutions to take down fake images and videos.

**Civil Society and the Emerging Technology Ecosystem**

To counter Chinese and Russian COVID-19 disinformation, civil society and emerging technologies organizations, such as Zignal Labs, Logically, Graphika, Alethea Group, and many others, have pioneered collaborations with digital platforms, civil society, media, and governments to understand, identify, and expose the evolving Russian and Chinese disinformation narratives, and provide mitigating strategies via content moderation, threat deception, and exposure. Critical to this effort has been the use of artificial intelligence, machine learning, and natural language processing to identify disinformation narratives and develop mitigation strategies.
Similarly, many research and academic institutions and NGOs have stepped up to provide much needed novel research and analysis to counter Russian and Chinese disinformation campaigns, share information, and provide critical information to governments, media, and digital platforms globally when they have needed it most. In addition to CEPA, organizations such as the Atlantic Council’s Digital Forensic Research Lab (DFRLab); Stanford University’s Internet Observatory; Carnegie Endowment for International Peace’s Partnership for Countering Influence Operations; Harvard University’s Shorenstein Center on Media, Politics and Public Policy; the Institute for Security and Technology; German Marshall Fund’s Alliance for Securing Democracy, and many others have contributed to developing solutions. Moreover, organizations such as the National Democratic Institute (NDI), the International Republican Institute (IRI), the International Research and Exchanges Board (IREX) and other implementing partners have been working with the US government and other partner government missions around the world to counter Russian and Chinese COVID-19 and political disinformation in developing nations. These efforts have included media and digital literacy programs, such as IREX’s Learn to Discern; journalistic and cyber hygiene trainings; public diplomacy and strategic communication initiatives; anti-corruption initiatives; and institution-building initiatives.

WHAT IS WORKING

As disinformation and misinformation have evolved and adapted over time, there are numerous ways that European governments, the US government, digital platforms, and civil society have made progress, and several initiatives are already working. While there is more to be done, particularly when dealing with the global infodemic and nefarious actors like China and Russia, it is important to acknowledge areas where there have been improvements.

Exposure of disinformation campaigns has worked somewhat to raise awareness

Regardless of the actors who spread it, COVID-19 disinformation and propaganda have real-world impacts — the infodemic costs lives. Awareness about this concern coupled with the ability of policy makers, health officials, and community leaders to communicate to the public about the dangers of disinformation and misinformation via direct communication, social media, and infotainment is critical to address this challenge, and in this case, save lives. Efforts to expose disinformation campaigns have helped shed light on the challenge. One such effort was the GEC’s August 2020 report, *Pillars of Russia’s Disinformation and Propaganda Ecosystem*, that outlines official government communications, state-funded global messaging, cultivation of proxy sources, weaponization of social media, and cyber-enabled disinformation. It also profiled seven Kremlin-aligned disinformation proxy sites and organizations, highlighting their amplification of anti-US and pro-Russian positions during the COVID-19 outbreak. Similarly, EUvsDisinfo has issued a series of special reports on the narrative campaigns from China and Russia. Separately, according to the Pearson Institute and the Associated Press-NORC Center for Public Affairs Research, in October 2021, 95% of US citizens believed that disinformation is a
problem, including on COVID-19. Despite this statistic, some continue to believe that the government, public health officials, and vaccine manufacturers are the ones spreading disinformation about the pandemic. Governments, civil society, and digital platforms continue to evaluate the impact of exposure campaigns. Questions such as how much exposure reaches the target audience, does it change audience and threat actor behavior remain important points for analysis, policy considerations, and interventions.

Building long-term resilience

Countering disinformation from China, Russia, and other actors is a long-term challenge that does not have quick fixes — rather, long-term resilience mechanisms are needed. To that end, the international community has started to recognize the need to strengthen democratic institutions, support independent media, counter digital authoritarianism, and strengthen digital citizens and media literacy skills of journalists. At the Summit for Democracy in December 2021, Biden announced a set of sweeping proposals on democratic renewal with a desired objective of strengthening societal resilience to respond to these challenges. For example, the United States announced a $30 million International Fund for Public Interest Media, a multi-donor fund to support free and independent media around the world, particularly in the developing world, and a Media Viability Accelerator to support the financial viability of independent media.

The United States and many European countries are investing significantly in digital and media literacy and civic education for all ages to strengthen societal resilience and counter Russian and Chinese COVID-19 and other related disinformation. Thanks to innovative initiatives from partner and implementing organizations, the United States and Europe have been implementing initiatives in developing countries. For example, IREX’s Learn to Discern training program and curriculum has been offered to diverse audiences with the goal of inoculating communities from public health disinformation, decreasing polarization, and empowering people to think critically about the information they consume. To reach audiences in creative ways, academics and technologists have developed counter disinformation games that force the players to tackle disinformation head on by creating fake personas, attracting followers, and creating fake content. By playing games such as DROG and the University of Cambridge’s Bad News Game, players can get into the mindset of the threat actor and their tactics.

Improved coordination between digital platforms and civil society

Over the past few years, there has been greater collaboration between digital platforms and civil society to combat disinformation around elections and COVID-19 and stemming from violent extremists. For example, the Trust and Safety community formed a Digital Trust and Safety Partnership to foster collaboration and a shared lexicon between digital platforms. The long-term success of this initiative remains to be seen. Similarly, as part of an effort to curb COVID-19 disinformation, digital platforms have been meeting with the WHO and government officials to
ensure that people receive credible information about the pandemic, and digital platforms take appropriate action on COVID-19 disinformation.\textsuperscript{261}

In addition, organizations such as NDI, IRI, and the DFRLab have been critical in serving as a partner and a liaison between digital platforms and civil society in emerging markets, including the Global South. This has been important in ensuring that civil society organizations and citizens know how to report disinformation to digital platforms, get access to credible information, know how to engage in the technology space, and receive digital literacy training to be responsible stewards of information. The Design 4 Democracy Coalition, a coalition of civil society and human rights organizations, also plays an important role in forging partnerships between civil society and digital platforms.\textsuperscript{262} These organizations provide access, relationships, and critical exposure to marginalized communities and populations in the Global South — places where digital platforms may not have full operational capability. However, civil society in the Global South has struggled with access to data, making it difficult for outside researchers to meaningfully study certain platforms.
Recognition of the need for a whole-of-society approach

While governments, digital platforms, civil society, emerging technology organizations, and researchers have differing viewpoints on ways to protect the public and marginalized communities from COVID-19 disinformation, all of them recognize that a whole-of-society approach is needed to counter Russia and China’s intentional spread of propaganda and disinformation and build long-term resilience mechanisms. However, as described below, gaps still exist on how to implement such an approach.

A NEW STRATEGIC APPROACH FORWARD

While there has been much improvement over the few years to address IOs from adversaries, there is still much work to be done. As with elections or politically motivated disinformation, countering COVID-19 IOs from Russia, China, and other actors requires a whole-of-society approach that strengthens partnerships...
and prioritizes information sharing and collaboration between governments, multinational organizations, digital platforms, civil society, and the research community. However, while progress has been made to bring these stakeholders together and move the needle on this issue, gaps remain, and additional progress is needed. As Alina Polyakova and Daniel Fried point out in their report, *Democratic Offense Against Disinformation*, the “whack-a-mole” approach must stop; it is crucial for governments and organizations to get on the offense.263

How do we get on the offense? Gaps in designing holistic and operational campaigns to counter COVID-19 IOs must be addressed and greater focus must be centered on what adversaries fear most: resilient democratic societies with healthy information ecosystems that can withstand information manipulation and disinformation in all its forms.

Over the last several years, researchers and policymakers have provided a series of recommendations for combatting disinformation. However, what is needed is a strategic shift in the approach to information warfare. This new strategic approach should consist of seven pillars:

**Pillar 1: Understand how the adversary thinks**

In playing a “whack-a-mole” game, a gap exists in the inability to think from the perspective of the adversary. What are their desired objectives? What are the end states? What tools do the Russians and Chinese use to spread disinformation, and how do they seek to influence change in behavior? Therefore, to design strategic and operational-level campaigns to counter COVID-19 and other disinformation from Russia and China, it is crucial to think about the threat actor, how they share content, and their desired outcome: to cause confusion, reduce social cohesion, spread fear, and, ultimately, change the behavior of the targeted population. Thus, the transatlantic community needs to articulate the desired outcome and change in behavior of their interventions around crises. The desired objective should be populations that are capable of critical thinking, distinguishing fact from fiction, who are supported by democratic norms and values, and strong resilient institutions.

The information space around the current war in Ukraine offers another important lesson. Staring down what had been the world’s most formidable information warfare apparatus, the West had assumed the information war would be wholly defensive. Instead, Russian IOs could not withstand the overwhelming force of the free press, even before social networks and European countries began their bans and deplatforming. This left the West unprepared for the opportunity to have a positive, offensive message making clear that victory in the kinetic war is possible due to the power of a positive narrative.

“Greater focus must be centered on what adversaries fear most: resilient democratic societies with healthy information ecosystems that can withstand information manipulation and disinformation in all its forms.”
Pillar 2: Develop, refine, and align on transatlantic regulatory approaches

Currently, there is no common transatlantic regulatory approach to address disinformation coming from Russia and China. For example, the EU adopted the European Democracy Action Plan and the Code of Practice to counter disinformation, yet individual European countries respond to disinformation campaigns from Russia and China differently as information proliferates online in unique ways. While the EU initially passed the Digital Services Act’s provisions to curb big tech’s ill-intended advertising practices, these provisions need to be negotiated with each individual EU member state to enforce the provisions stipulated in the act. How each state will establish transparency, accountability, and auditability measures with the digital platforms is yet to be determined. In addition, the US Congress has proposed a series of meaningful legislative proposals that could stymie disinformation and other malicious content, and keep actors like Russia and China, and digital platforms accountable. However, due to partisan gridlock and differing understanding about the harmfulness of disinformation, Congress has had trouble passing legislation that has been introduced on this subject and there have been delays implementing authorized initiatives.

“These provisions need to be negotiated with each individual EU member state to enforce the provisions stipulated in the act.”

As the US Department of State stands up its Bureau of Cyberspace and Digital Policy, an opportunity exists for the United States to partner with its European counterparts. The US government has yet to put forth a codified disinformation strategy that is coordinated by the White House. Such a strategy is necessary and should pull together all instruments of US national power and all respected agencies that address the threat of disinformation domestically and internationally, build democratic institutions, strengthen societal response, and assess how disinformation impacts marginalized populations globally, including women and girls. The European Parliament recently adopted a comprehensive report from the Special Committee on Foreign Interference in all Democratic Processes in the European Union, including Disinformation. The European Commission and the European presidency should seriously consider the recommendations such as creating a Commission taskforce dedicated to identifying gaps in policies, providing civil society with funds and tools to counter foreign influence, and including digital literacy in school curricula. The US and the EU should then work together to align their respective policies, creating a global standard.

Pillar 3: Stand up a coordination and information-sharing whole-of-society mechanism for information integrity and resilience

Given the different regulatory environments and overall acknowledgement of the societal challenges that stem from Russian and Chinese COVID-19 and related disinformation, the international community does not have a unified forum to
address disinformation and other harmful content. The G7 RRM has done some work in establishing coordination among the G7 governments, but at the present time, a mechanism does not exist to pull aligned governments, including those from the Global South, digital platforms, civil society, and research communities together to collaborate and share information, foster exchanges, anticipate and address threats before they escalate, and develop mechanisms to strengthen societal resilience to disinformation. The bipartisan Task Force on the US Strategy to Support Democracy and Counter Authoritarianism proposed a Global Task Force on Information Integrity and Resilience. In this proposal, like-minded democracies would take rotational responsibilities to lead this task force and establish a forum for whole-of-society collaboration, coordination, and information sharing, including participation from the Global South’s like-minded democracies.

Without such a mechanism, the “whack-a-mole” game, rather than a cohesive strategy and campaigns to counter Russian and Chinese COVID-19 and other disinformation efforts, will continue. The United States and its democratic allies should work together to form the global task force with the goal of complementing existing coordination bodies.

### Pillar 4: Develop a comprehensive deterrence strategy and leverage traditional tools of statecraft

The United States and Europe should develop a comprehensive deterrence strategy that will appropriately punish nations for their IOs. A successful deterrence strategy has two components: deterrence by denial and deterrence by punishment. The first component means that an adversary should not be allowed to expend the risk, effort, and resources in IOs because they will not be successful; strategies outlined below speak to this. The second component means that there are clear, credible, and understood consequences in the form of retaliatory measures. Western democracies should be willing and able to impose significant punishment for IOs that are calibrated and clearly communicated while also controlling for potentially dangerous escalatory ladders.

To do this, the United States and Europe can better coordinate on leveraging traditional tools of statecraft, such as sanctions, to combat IOs. As previously noted, the United States has issued sanctions as a mean of imposing costs on targets for maliciously and deliberately spreading disinformation. However, the deterrent effect of these sanctions has been limited because it has primarily been the United States implementing them. As has been demonstrated by the recent sanctions imposed on Russia for its invasion of Ukraine, sanctions are most effective when the United States and the EU work together: The Special Committee on Foreign Interference in all Democratic Processes in the European Union, including Disinformation report recently adopted by the European Parliament calls, among other things, on the EU to build its capabilities and establish a sanctions regime against disinformation. An effort such as this in coordination with the United States could be a more effective measure for creating a cost for malign IOs.
Pillar 5: Localize and contextualize interventions

To counter the various forms of disinformation, a one-size-fits-all approach will not work. Rather, a continued set of localized, population-centric, contextual, culturally appropriate solutions is needed. While digital platforms have expanded their global footprint and partnerships with civil society, human rights organizations, and governments, a significant investment in localized and contextual solutions is needed. A real need exists to reach people outside of the capitals and across diverse communities, including women and girls. This matters because these communities are the ones that specifically need access to credible information, digital and media literacy training, and knowledge about how to report disinformation to digital platforms and with whom to engage. Thus, creating these types of local solutions can have a significant impact.

Toward this end:

- Digital platforms should increase investment in research on the impact of disinformation on marginalized populations, including in the Global South, and invest in continuous engagement and operations in emerging markets and local languages.
• In addition, addressing bias in algorithms, particularly as it relates to cultural, linguistic, religious, and ethnic bias among marginalized communities, remains a concern. As digital platforms work on these solutions, localized and culturally appropriate research that can complement the work of addressing algorithmic bias can help steer toward localized solutions to counter disinformation in these communities.

• Finally, to help localize and contextualize interventions, digital platforms should make greater investments in sharing data to facilitate research to understand the impact that platform interventions have on diverse populations.

Pillar 6: Build and rebuild trust in democratic institutions

Countering disinformation from Russia and China requires developing long-term solutions to strengthen democratic institutions and societal resilience. While there has been significant headway in this area, several gaps exist on both sides of the Atlantic. First, while instant results in countering disinformation are wanted, they will not be achieved without understanding the root causes within societies, including divisions, and cultural, religious, and historical underpinnings that can further divide a society and drive polarization. Second, due to a lack of trust in democratic institutions, people do not view these institutions as reliable and credible sources of facts about COVID-19 or other contentious topics. For example, in June 2020, only 13% of US citizens had a great deal of trust in the COVID-19 information that was provided by the federal government.267

As a solution to these gaps, leaders in the United States and Europe will need to implement and maintain government ethics and transparency mechanisms to enhance citizens’ trust in, and access to, the operation of government under law. They will also need to prioritize listening to people from all backgrounds, people-to-people engagement, and creatively using social media to communicate effectively and empathetically and regain the trust of people from diverse backgrounds.

Pillar 7: Strengthen societal resilience by advancing media and digital literacy, countering digital authoritarianism, and measuring the impact of policy interventions

While there is broad agreement that promoting internet freedom, strengthening media institutions, and increasing media and digital literacy are crucial to building a healthy information ecosystem to counter disinformation, additional resources are needed to fully implement these initiatives at scale and with the right local context and nuance globally. Russia and China have been perfecting their disinformation strategies because they understand their local and global audiences, can tailor their tactics, and pull the right levers based on what works in a local context. Equally,
Russia and China have started to export digital authoritarianism to further censor information in developing countries, export propaganda, and clamp down on free press and free expression.

To that end, the United States and European countries should double down on existing commitments to countering disinformation and invest in local and regional solutions. This should be done in multiple ways:

- First, greater financial investments should be made in institutions such as the US Agency for Global Media, which includes Radio Free Europe/Radio Liberty and Radio Free Asia, that exist to share credible information with local audiences that may have limited access to credible information, especially in rural markets, underdeveloped areas, or authoritarian regimes.

- Second, training of local and regional journalists by trusted partners should continue to be a priority. This is in addition to adding greater funding for new and independent media that is free from manipulation and corruption. Equally important is training citizens across demographics in digital literacy and civic skills so that they can be good stewards of information and not fall victim to Russian or Chinese disinformation and misinformation. These skills should be shared across towns, villages, tribes, religious and community centers, and schools.

- Third, investing in critical infrastructure, emerging technologies, and increased access to a free and open internet to counter digital authoritarianism in emerging markets must be part of the solution to fight disinformation. After all, digital authoritarianism and disinformation are two sides of the same coin; addressing both in emerging markets will be crucial to countering the malign influence of Russia and China. In addition, investing in local tech entrepreneurship and youth programs will be critical to addressing these challenges. Young people are the future and can forge innovative private-public-civic partnerships to address these challenges.

- Fourth, and finally, the only way to assess the effectiveness of these investments is to measure their holistic impact. This must be done at both the individual program level and the strategic level that is tied to the broader goal of countering Russian and Chinese disinformation.
ENDNOTES


10 Ibid


14 Global Engagement Center, “Pseudo-Academic Online Journals”

15 Omelas, “Minds Besieged: Digital Warfare”


17 Kliman et al, “Dangerous Synergies”

18 Cook, “Beijing’s Global Megaphone”


Kalenský, “Six Reasons”


Medium, “Russia Exploits Coronavirus Outbreak”


Cook, “Beijing’s Global Megaphone”


Cook, “Beijing’s Global Megaphone”


Cook, “Beijing’s Global Megaphone”


Judyth Twigg, “Putin Has a Vaccine”; COVAX is an effort run by the World Health Organization to ensure the equitable global distribution of vaccines.


Medium, “Russia Exploits Coronavirus Outbreak”.


Cook, “Beijing’s Global Megaphone”


Cook, “Beijing’s Global Megaphone”


Bush, “Russian IOs in Spanish”

Cook, “Beijing’s Global Megaphone”


Barros, “Viral Disinformation: Ukraine”


Cook, “Beijing’s Global Megaphone”
Post-Mortem: Russian and Chinese COVID-19 Information Operations


77 EUvsDisinfo, “4/24 EEAS Special Report Update”; Omelas, “Viral Overload”


82 Cook, “Beijing’s Global Megaphone”


86 Cook, “Beijing’s Global Megaphone”


90 Recorded Future, “Chinese State Media”

91 Karásková, “China’s Propaganda and Disinformation”


Post-Mortem: Russian and Chinese COVID-19 Information Operations

94 EUvsDisinfo, “4/24 EEAS Special Report Update”
98 Singer et al, “How China is Working”
99 Crete-Nishihata et al, “Timeline of Information Control”; Cook, “Foreign and Domestic Control”
101 Crete-Nishihata et al, “Timeline of Information Control”
104 Cook, “Foreign and Domestic Control”.
105 Molter and Webster, “Coronavirus Conspiracy Claims”; Fernandez, “China Peddles Falsehoods”
107 Cook, “Beijing’s Global Megaphone”
110 Diresta et al, “Telling China’s Story”
118 BBC News, “What do we Know?”
Post-Mortem: Russian and Chinese COVID-19 Information Operations


123 Poggetti et al, “CCP Manipulating Global Pandemic

124 Poggetti et al, “CCP Manipulating Global Pandemic”; Šebok, “Inside China’s Propaganda Campaign”


134 Kendall Taylor and Shullman, “Chinese and Russian Disinformation”

135 Kliman et al, “Dangerous Synergies”


137 Brandt, “Beijing’s Viral Disinformation Activities”; Brandt and Schafer, “Five Things to Know”


139 Global Engagement Center, “Pillars of Russia’s Disinformation"
Post-Mortem: Russian and Chinese COVID-19 Information Operations

141 Poggetti et al, “CCP Manipulating Global Pandemic”
145 Kliman et al, “Dangerous Synergies”
146 Cook, “Beijing's Global Megaphone”
147 Expert working group convened by CEPA
151 Expert working group convened by CEPA
152 Cook, “Beijing's Global Megaphone”
153 Global Engagement Center, “Pillars of Russia's Disinformation”
158 Lucas et al, “Information Bedlam”
162 Lucas et al, “Information Bedlam”
Post-Mortem: Russian and Chinese COVID-19 Information Operations


164 Cook, “Beijing’s Global Megaphone”


Post-Mortem: Russian and Chinese COVID-19 Information Operations

177 Schafer et al., “Influence-enza”


179 Schafer et al., “Influence-enza”

180 Brandt and Schafer, “Five Things to Know”


183 There has been some debate over whether the literal translation of Xi’s remarks was correct, which could change the tone of his remarks.


188 Schafer et al., “Influence-enza”


193 Schafer et al., “Influence-enza”


Please note that the tweets data only includes tweets from embassies and does not include tweets from diplomats. Analysis on diplomats is drawn from other sources.


Post-Mortem: Russian and Chinese COVID-19 Information Operations


Post-Mortem: Russian and Chinese COVID-19 Information Operations


239 Ibid


Post-Mortem: Russian and Chinese COVID-19 Information Operations


257 Ibid.


