Balancing Opportunities and Incentives: How Rising China's Mediated Public Diplomacy Changes Under Crisis

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Although public diplomacy is widely practiced, the scope of its theory is limited mostly to Western countries. Addressing this limitation requires empirical evidence on non-Western countries, but beyond case studies, it is not theorized how non-Western countries strategize their public diplomacy. As a first step, this article explores China's mediated public diplomacy during two crises: the Sino-U.S. trade war and the COVID-19 pandemic. Using machine learning, this study finds that the 2 crises affected mediated public diplomacy differently. The trade war provided both opportunities and incentives, which escalated both China's positive advertisements and the negative campaign against the United States. However, China attempted to deflect attention during the pandemic. Chinese international media outlets started not to talk much about its economy and international activities after the pandemic outbreak, and instead they dramatically increased the negative mention of the United States. Therefore, China strategically coordinates its mediated public diplomacy according to the situation based on both incentives and opportunities.

Keywords: mediated public diplomacy, international communications, soft power, image building, China

Many countries invest remarkable resources in communicating with foreign audiences, the so-called public diplomacy, because discourse and reputation matter in international relations. Although the term *public diplomacy* was coined in 1965, communication with foreigners had been practiced long before the Cold War (Cull, 2008b). With the development of communication technologies, a state's reputation has been considered a crucial asset in international relations, often referred to as *soft power*. According to Nye (2004), soft power is the power that "rests on the ability to shape the preferences of others" (p. 5). To put it simply, soft power achieves its objectives by attraction and co-option rather than coercion or payments. Because Nye's concept of soft power is widely acknowledged, many states have started to focus on public diplomacy as a tool to increase soft power.

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The theory of public diplomacy has developed over time. Initially, public diplomacy was used as a synonym for state-led propaganda. After the Cold War, however, international relations actors were diversified, and diplomacy became increasingly accountable to nonstate actors (Pamment, 2013; Zahanra, 2020). As a result, the public diplomacy theory was transformed from a one-way flow of information (i.e., I speak and you listen) into the so-called new public diplomacy, which is more "dialogical, collaborative, and inclusive" (Pamment, 2013, p. 3). In current public diplomacy theory, the one-way flow of information, like state-led propaganda, is regarded as less important and valuable.

Despite its recent refinement, the theory about public diplomacy might be biased because it focuses primarily on Western countries (Goldsmith, Horiuchi, & Matush, 2021; Melissen & Lee, 2011). Especially, the recent theories about soft power showed bias because Nye conceptualized soft power based mainly on his analysis of the United States (Rawnsley, 2012). Attempting to resolve this bias requires the empirical evidence on non-Western countries. To this end, this article explores how well the theory applies to China.

This article focuses on China for two reasons. First, it is a major non-Western country that has devoted itself to communicating with international audiences. With the development of its economy, China has faced a reputational problem called China Threat Theory: the idea that the rise of China will threaten the world (Kurlantzick, 2007). This idea became popular in the 1990s, and since then, the Chinese government has invested significant resources in its reputational management. The foundation for China to embrace soft power was constructed in the first half of the 2000s (Kurlantzick, 2007; Shambaugh, 2013; Wang, 2008). For example, the Chinese Ministry of Foreign Affairs and Trade established a division of public diplomacy in 2004. Chinese leaders have also attached great weight to international communication. Xi (2017) commented on the importance of reputation at the 19th National Congress of the Chinese Communist Party, saying that China would improve the "capacity for engaging in international communication so as to tell China's stories well" (p. 39). The global expansion of Chinese media outlets could be positioned as its soft power strategy, and China has invested heavily in expanding the media's global presence to increase its soft power (d'Hooghe, 2014).

Second, China is an outlier in the current theory of public diplomacy because of its status as a rising power. China has a strong incentive to catch up with developed countries through the development of hard power, but because its rise is more evident, developed countries may become anxious. As a result, China has suffered from the trade-off between the pursuit of hard power and the surge in anxieties, making the implementation of public diplomacy much more complex than for Western countries. China's rising status makes the difference between state-led propaganda and public diplomacy vague. According to the current public diplomacy theory, state-led propaganda is clearly differentiated from public diplomacy. Nye (2008) argued that merely broadcasting a country's charm through propagandistic media is meaningless when that country is not truly attractive, and thus the role of civil societies is emphasized. China, however, believes that soft power can be earned by state efforts, which is consistent with the framework of old public diplomacy (Edney, 2012; Rawnsley, 2015; Shambaugh, 2013). Therefore, China's public diplomacy differs from that of Western powers, and it is necessary to understand its motives and tactics for a more robust public diplomacy theory.

China's public diplomacy via media should be especially active in moments of crisis, though its strategies are underexplored. Public diplomacy is a tool particularly important in the context of confrontation to bring about reproachment (Gilboa, 2000). In other words, public diplomacy is essential in moments of crisis, when anti-sentiment and dissatisfaction are on the rise or hostile policies are taken in other countries because of solid anti-sentiment. By appealing to the foreign public via its media, the state aims to either prevent the further increase in anti-sentiment or change hostile policies. These efforts are categorized as *mediated public diplomacy*. According to Entman (2008), mediated public diplomacy is distinct from other public diplomacy activities in that it is a shorter-term, more targeted effort "using mass communication (including the internet) to increase support of a country's specific foreign policies among audiences beyond that country's borders" (p. 88). Several case studies discuss the Chinese international media during a crisis like COVID-19, but it is not theorized how China strategizes its mediated public diplomacy in moments of crises. This is not only because the findings in one case are not easily generalizable but also because the comparison between crises is difficult because of the lack of measurement.

Aiming to fill the gap in the literature, this article investigates China's mediated public diplomacy during a crisis. By exploring both agenda setting and framing with respect to China and the United States, this study compares China's mediated public diplomacy efforts during the two crises: the Sino-U.S. trade war and the COVID-19 pandemic. During both these two periods, case studies report several mediated public diplomacy efforts, but it is not yet clear how significantly active China was during these crises. To explore this further, the following research question guides the article:

RQ: How does China coordinate its mediated public diplomacy strategies during a crisis?

Crises of China's Soft Power

This article analyzes China's public diplomacy under two crises: the China-U.S. trade war and the COVID-19 pandemic. These two periods were chosen as crises for this study because both are the confrontational situations for China that caused incentives for mediated public diplomacy. China needed to mitigate the tariff in the case of the Sino-U.S. trade war, whereas China had to repair its reputational deficit caused by the COVID-19 pandemic. This section gives a brief description of both crises.

China–U.S. Trade War

The recent transformation of China's diplomacy style has created anxiety among developed countries, and the trade war emerged as a manifestation of negative views toward China. Although China had taken a backseat in international affairs since the start of the open and reform period, it has become more active and aggressive after the financial crisis (Johnston, 2013; Shambaugh, 2020; Wang, 2019). This transformation has continued under the leadership of Xi Jinping. Xi's diplomacy is called major power diplomacy, where China acts as one of the major powers in the international arena (Wang, 2019). These behaviors invited anxieties that led to backlash. After Xi's inauguration, the United States' anti-China sentiment increased dramatically (Silver, Devlin, & Huang, 2020). The most significant backlash was the Sino-U.S. trade war. Since 2018, the United States has imposed restrictions on trade with China not only because China's trade practices have appeared unfair but also because its economic rise appeared to

challenge U.S. hegemony (Kwan, 2020). Indeed, Mike Pence commented that China aims to win "the commanding height of the 21st-century economy" by using stolen technologies from the United States (The White House, 2018, para. 23). Therefore, the trade war has been driven by skepticism or anti-China sentiment, and China has needed to address this hostile discourse.

China initiated mediated public diplomacy during the trade war not only to mitigate the skepticism within the United States but also to garner more sympathetic global discourse. Wang and Ge (2020) argued that China portrayed itself as a victim of the trade war and a defender of free trade. Several Chinese international media outlets also mentioned China's positive attitude toward negotiations and the benefit of cooperation. Among these public diplomacy efforts, the primary tactic was a negative campaign. Zeng and Sparks (2020) showed that criticism of the U.S. foreign policies was prevalent in Chinese media coverage, and the criticisms emphasized the trade war's damage to U.S. citizens. For example, Global Times portrayed that American soya-bean farmers worried about the trade war and the Trump administration's foreign policies. In this way, China conducted mediated public diplomacy mostly on the topic of the economy and U.S. foreign policies.

COVID-19

Another recent crisis for China is COVID-19. The first case of the infection was detected in Wuhan (Allen-Ebrahimian, 2020), which spread globally and resulted in a worldwide pandemic (World Health Organization [WHO], 2020). Because of China's failure to contain the pandemic domestically, the pandemic affected their reputation (Jacob, 2020). Indeed, according to Pew Research Center, negative sentiment toward China in developed countries soared significantly because of the pandemic, and China's virus measures were evaluated mostly negatively (Silver et al., 2020).

In dealing with such an international reputational crisis, China initiated mediated public diplomacy. Cull (2022) identified four rhetorical strategies employed during the pandemic: (i) the self as success, (ii) the others as failure, (iii) gifts (e.g., medical aid), and (iv) partnerships (i.e., transnational cooperation). When reporting China's success in containing the pandemic, the Chinese media highlighted the work by medical professionals and government officials' effective response to the pandemic. When reporting on other countries such as the United States, the Chinese media emphasized their failure in responding to the pandemic. Gifts and partnerships were highlighted during the pandemic as well, and indeed, China has supported other countries, both medically and economically. Soon after controlling the pandemic domestically, China began to assist other countries through "coronavirus diplomacy" (Kobierecka & Kobierecki, 2021). Being the first country to recover from the pandemic, China could be engaged in active support and broadcast these activities through its media. The mediated public diplomacy using aid was not always effective, however. Despite conducting coronavirus diplomacy for the EU and its advertisement on media for the first half of 2020, there was still intense anti-China sentiment (Lequesne & Wang, 2020; Verma, 2020). Therefore, China broadcasted its public health competence, other countries' failure in public health, and its presence in the international arena; however, the implementation of mediated public diplomacy has been quite hard because the discourse was too confrontational.

Hypotheses

The theory of mediated public diplomacy presupposes that China would create the agenda and framing beneficial for itself in moments of a crisis. In mediated public diplomacy, a country must win the competition among the international communication arena to create a favorable global discourse. Sheafer and Gabay (2009) identified two dimensions of this competition: international agenda building and international frame building. International agenda building refers to how much media attention the country receives, whereas international frame building refers to how well the country is illustrated. Assuming the intensified Sino-U.S. rivalry, the Chinese government is concerned about its own reputation as well as the United States' reputation. These efforts should be reflected in the topics related to each crisis. From the discussion in the previous section, the related topics are economy and international affairs for the trade war and public health and international affairs for COVID-19.

For international agenda building, the Chinese media would actively mention itself and the United States after the outbreak of a crisis. As international agenda building refers to how much attention a country receives from international media, the effort on agenda building would be reflected in the volume of mentions about China and its rival (the United States). Thus, Hypotheses 1 and 2 are specified as follows:

H1:   *After the outbreak of a crisis, the Chinese international media outlets would mention China more only in the topics related to the crisis.*

H2:   *After the outbreak of a crisis, the Chinese international media outlets would mention the United States more only in the topics related to the crisis.*

Because of the competition over international frame building, a qualitative change in tones is also expected. International frame building requires the Chinese media to influence how the two countries (China and the United States) are illustrated in global discourse, and this effort would be reflected in the sentiment expressed about each country. In other words, after the outbreak of a crisis, China would portray itself more positively and its rival more negatively through its international media outlets. Therefore, Hypotheses 3 and 4 are specified as follows:

H3:   *After the outbreak of a crisis, the Chinese international media outlets would frame China more positively only in the topics related to the crisis.*

H4:   *After the outbreak of a crises, the Chinese international media outlets would frame the United States more negatively only in the topics related to the crisis.*

Research Design

Source

This article used two primary newspaper sources in China targeting international audiences: *China Daily* and *People's Daily Online* (the online portal of People's Daily). Both media outlets are crucial

for mediated public diplomacy (Shambaugh, 2013, 2020). For example, *China Daily* circulated newspaper-like advertisements called "China Watch" in more than 30 newspapers worldwide, such as *The New York Times* in the United States or *Mainichi Shimbun* in Japan (Lim & Bergin, 2018). In addition, *China Daily* established a new website highlighting China's effort to fight against COVID-19 (Jacob, 2020). *People's Daily Online*, which also transmits information about China and is supposed to represent the central government's view, is another critical medium in China's mediated public diplomacy (Zeng, Chan, & Schäfer, 2022, p. 2). Similar to *China Daily*, *People's Daily Online* targets the international audience through its publication of nine foreign-language editions, including English and Russian. Because both two English-written newspapers are important for China's mediated public diplomacy, the analysis of these newspapers can demonstrate the Chinese strategies during crises to alter the international discourse.

Data Collection (Period, Keywords)

The news articles containing the keywords "chin* OR the us OR the united states OR america*" were collected from the website. The coverage of the data set is from December 1, 2012, to December 1, 2020. The total number of articles is 173,359 from *China Daily* and 69,202 from *People's Daily Online*.

Content Analysis

Three scaling and classification methods were used: topic model, geographical classification, and sentiment scaling. Combining geographical classification and sentiment scaling is necessary to test the hypotheses about China and the United States. Topic model is used to know how mentions and sentiments changed during crises. The procedure of text-preprocessing is in Appendix A.

Topic Model

The Structural Topic Model (STM) was used to estimate the topic of each article (Roberts, Stewart, Tingley, & Airoldi, 2013). The number of total topics is 30. After discovering 30 topics, nine were excluded because they are very difficult to interpret, and the remaining ones were manually mapped to 11 substantive topics. The list of topics and keywords is in Table 1. The topic *Hong Kong* includes articles about Hong Kong, Taiwan, and Macau. This topic was not included for analysis because it covers the Hong Kong protest in 2019 and is not suitable to estimate the effect of the Sino-U.S. trade war and the COVID-19 pandemic.

Table 1. Topic List.

Topic	No.	Associated Word
Politics	9	reform, implement, communist party, cpc, congress,
	24	law, court, xinjiang, legal, rule, regulation, corrupt
International	11	trump, dprk, vote, eu, elect, iran, democrat
	15	japan, india, us, philippine, tariff, australia,
	21	africa, belt, cooper, road_initiative, forum
Economy	4	challenge, change, particular, rather, term, therefor, fact
	10	brand, sale, wine, retail, market, consumer, custom
	13	bank, percent_year, percent, trillion_yuan, decline
	18	yuan, million_yuan, money, pay, shanghai, list, employee
	28	infrastructure, billion_yuan
Public Health	6	disease, pandemic, vaccine, treatment, medice, health
	17	wuhan, epidemic, outbreak, fight, spread, donate
Social	3	policy, kill, suspect, attack, arrest, fire, victim
	12	village, counties, chengdu, poverties, southwest, chongq
	19	cities, tianjin, liu, hebei_province, beijing, hebei, liu_said
Education	22	student, teacher, school, university, educ, college
Nature	23	river, water, meter, park, lake, tree, mountain
Travel	25	flight, passenger, airport, ship, aircraft, port, airline
Sports	26	game, sport, coach, club, player, match, win
Culture	29	film, music, movie, song, dance, perform, audience
Hong Kong	8	hong_kong, mainland, taiwan, guangzhou, cross, macao

Note. The column "Associated Words" are chosen based on the frequency and exclusivity method (FREX).
"No." refers to the topic number assigned in STM.

Geographical Classification

The geographical classification method, Newsmap, was employed to estimate which country the sentence talks about. Newsmap can accurately estimate the country most relevant to documents (Watanabe, 2018). Because multiple countries can be mentioned within one article, the country is estimated for each sentence. The number of sentences is 1,139,170 for China and 328,981 for the United States.

Sentiment Scaling

Latent Semantic Scaling (LSS) was used to estimate the sentiment polarity. LSS calculates the polarity of each word based on the proximity between the words in sentences and seed words (Watanabe, 2021). In this study, the standard seed words for sentiments are used (*good*, *nice*, *excellent*, *positive*, *fortunate*, *correct*, and *superior* for positive, and *bad*, *nasty*, *poor*, *negative*, *unfortunate*, *wrong*, and *inferior* for negative). Two different models were constructed to calculate the sentiment expressed for China and the United States. The model for China was trained with the entire data set, but in the U.S. model, only the

words highly correlated with the terms "us," "united states," and "america" were used because the United States is mentioned only in the small part of the sentences. To estimate the country-specific sentiment, this study follows the procedure employed in Trubowitz and Watanabe (2021). Specifically, the sentiment score for each country was predicted only for the sentences relevant to the country (China or the United States), and the estimation of Newsmap was used here. Thanks to the combination of LSS and Newsmap, it is possible to accurately estimate how each country is mentioned.
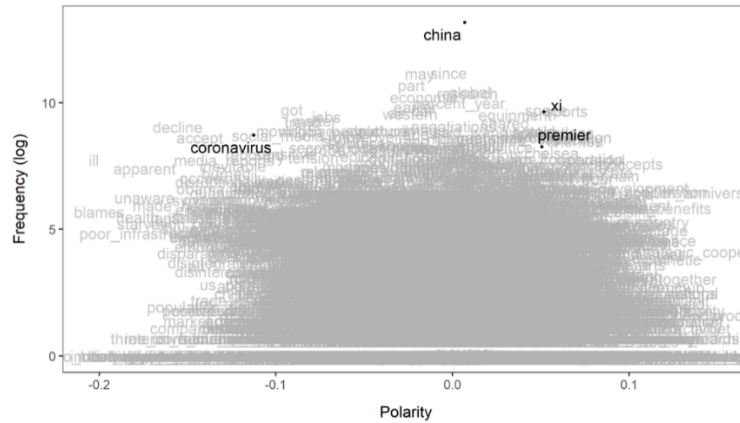

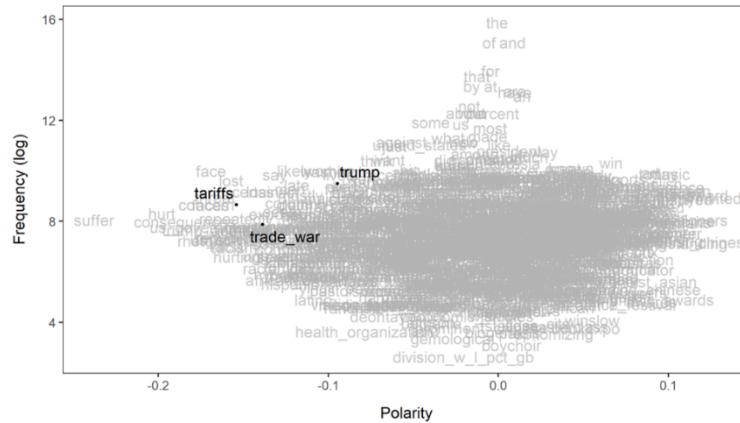*Figure 1. Polarity scores of words in the LSS model for China.*

Figure 2. Polarity scores of words in the LSS model for the United States.

Figures 1 and 2 are the plot of sentiment polarity (Figure 1 for the model of China and Figure 2 for the U.S. model). In both figures, y-axis indicates the logged frequency of words within corpus used to train LSS model for the sentiment about China, whereas x-axis refers to estimated sentiment polarity in the model. Some important terms are highlighted to check face validity. In Figure 1, "premier" and "xi" scored positively, and "coronavirus" scored negatively. This is reasonable because China desires to portray Xi positively, and coronavirus report appeared with negative words such as "deaths." Consistent with the literature, "china" was scored neutral because foreign-language media in China tries to minimize the tone of propaganda to enhance

its credibility (Rawnsley, 2015). Figure 2 shows that "trade war" and "tariffs" scored negatively, possibly because of the Sino-U.S. trade friction. These plots show how LSS scored each word; because important terms were scored as expected, LSS predictions worked well.
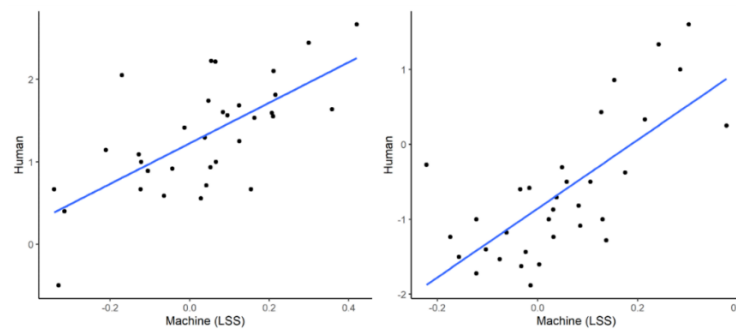

Figure 3. Results of validation (left: China / right: the United States).

To further validate LSS, three native English speakers manually coded 500 China-related articles and 500 U.S.-related articles. For each model, coders were asked to evaluate the sentiment of 500 articles (positive, negative, or neutral). Then, the human-coded sentiment score was constructed by summing up all evaluations, and this score was comparing with the LSS prediction. The human coding score correlated with the LSS prediction in both models ($r = 0.640$ for China and $r = 0.386$ for the United States). Figure 3 is the plot when the correlation is aggregated for every quarter. The x-axis represents the LSS predictions, and the y-axis is the sentiment score from human evaluations. By aggregating articles for every quarter, the mean of the manual-coded sentiment score correlated with the LSS score more strongly ($r = 0.682$ for China and $r = 0.718$ for the United States).

Variables in Regression Analysis

Four dependent variables were used for the four hypotheses in this study: the volume of mentions or the sentiment for China or the United States. In regression, the daily sum of mentions and the daily average of sentiment scores were used as dependent variables.

In all models, the goal is to estimate how each crisis changed the narratives about China and the United States, and thus the independent variables of interest are periods of crises. The independent variables were four dummy variables (*Trade*, *COVID1*, *COVID2*, and *COVID3*). *Trade* was coded 1 after the United States announced 25% tariffs (June 15, 2018) until the end of the data set (December 1, 2020). As for the pandemic, the period was divided into three stages (*COVID1–3*) as the situation changed dramatically over time. *COVID1* (from December 10, 2019, to March 19, 2020) was when China suffered from the disease endemically. *COVID1* began on December 10, 2019, because research indicated that the disease outbreak was confirmed as early as December 10, 2019 (Allen-Ebrahimian, 2020). *COVID1* ended on March 19, 2020, when China reported no new coronavirus cases for the first time since the initial outbreak (Givetash, 2020). *COVID2* (from March 20, 2020, to June 20, 2020) was when China still suffered from the pandemic, especially in economic terms, though it contained its domestic pandemic. *COVID2* ended on June 20, which was when China's dollar-dominated trade

showed growth from the previous year for the first time in 2020 (Tan, 2020). Finally, *COVID3* (from June 21, 2020, to December 1, 2020) was when China recovered from the pandemic. Indeed, China's economic recovery accelerated in the third and fourth quarters. Compared with the previous year, the Chinese GDP expanded by 4.9% in the third quarter and 6.5% in the fourth quarter in 2020 (Crossley, & Yao, 2021).

Three control variables were included in the models. The first one is a source dummy, which was coded 0 for *China Daily* and 1 for *People's Daily Online* to eliminate the difference between the two newspapers. The second is an event dummy. In this article, the crisis is defined not as single event but as the confrontational situation for China in the international arena, and thus the inclusion of the event dummy is essential to check whether the result is affected by newsworthy events like Party Congress. For this purpose, the events of China (C1 to C8) and the United States (U1 to U21) were identified. The list of events is in Appendix B. One day before and two days after the event date were also included because the important events were often repeatedly reported. Because most spikes in either volume of articles or sentiment scores corresponded to these events, they are sufficient as a control. The last dummy variable is for the Trump administration, which was coded 1 from January 20, 2017, to the end of the data set.

Analysis

This section consists of three parts. First, the volume of articles that refer to China or the United States is visualized to roughly understand how much coverage the newspapers dedicated to the two countries. Second, the change of sentiments is displayed to obtain the overall trend of sentiments. Finally, the hypotheses were evaluated using a regression analysis.
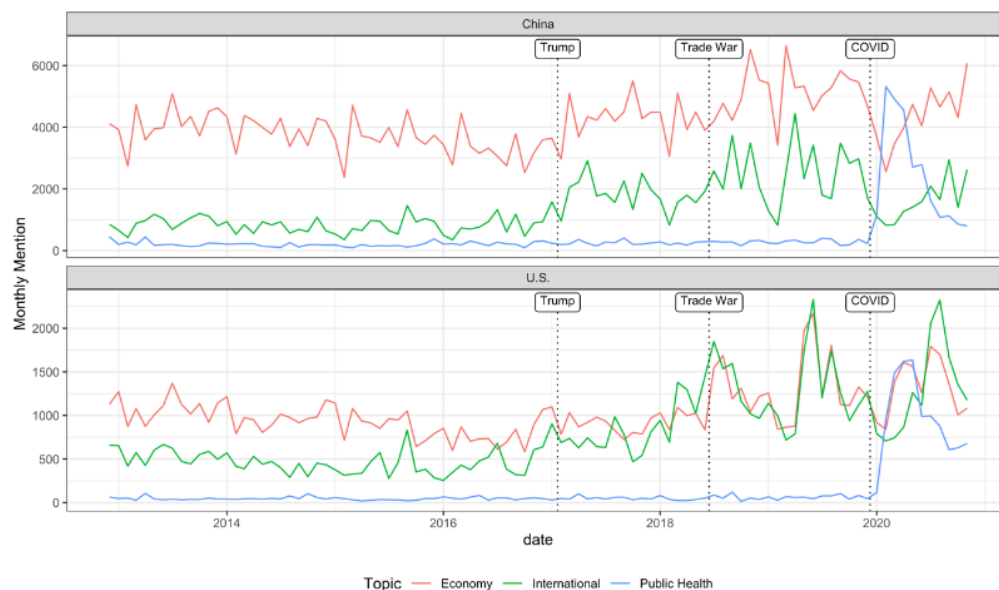
Volume of Mentions

Figure 4. The number of mentions about China and the United States.

Figure 4 is the volume of monthly mentions in the articles about China and the United States. For simplicity, only the topics related to the hypotheses are illustrated. The first dotted line represents the advent of the Trump administration, the second one is for the initiation of the trade war, and the last one represents the outbreak of COVID-19. The number of mentions increased during the trade war in *Economy* and *International* for both China and the United States. However, the change under the pandemic is different. The number of articles about *Public Health* increased dramatically during the pandemic. In *Economy* and *International*, whereas the mention of the United States increased after March 2020, mention of China decreased quickly after the outbreak of the pandemic.
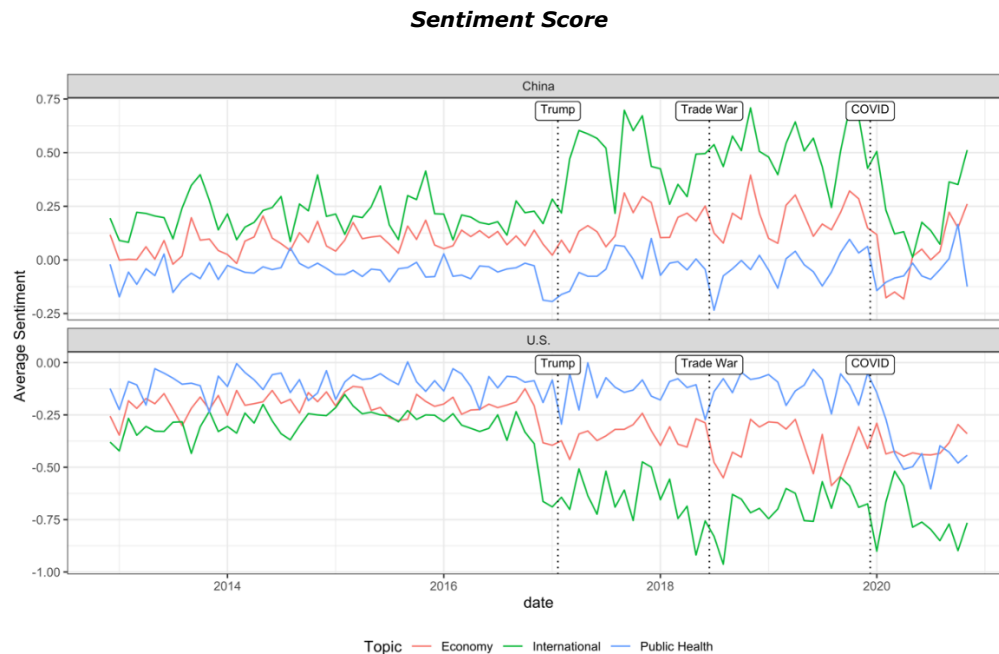
Sentiment Score

Figure 5. Sentiment about China and the United States.

Figure 5 illustrates the sentiment scores for China and the United States. For China, it is evident that both crises affected its sentiment. After the inauguration of Donald Trump and the initiation of the Sino-U.S. trade war, China began to depict its international and economic activities more positively. The effect of the pandemic is more striking. Sentiments about China declined sharply soon after the pandemic in *Economy* and *International*, but the sentiment about *Public Health* in China did not change even during the pandemic. Different from China, during both the trade war and the pandemic, U.S. sentiments became negatively affected in the related topics.

Regression Analysis

The results of all models are in Tables 2 and 3. Models on Table 2 are about mentions (1 and 2 are about China, whereas 3 and 4 are about the United States), and models on Table 3 are about sentiments (5 and 6 are about China, whereas 7 and 8 are about the United States). The numbers in the parentheses

indicate the cluster standard error. As the inclusion of event dummies did not greatly change the coefficient, the results were reasonably robust and not driven by specific newsworthy events.

Table 2. Results (Dependent Variables: Volume of Mentions).

	China		United States	
	(1)	(2)	(3)	(4)
Trade	36.120***	39.693***	14.880***	14.383***
	(7.144)	(7.429)	(2.188)	(2.299)
COVID1	−43.715***	−44.863***	−8.987*	−7.959
	(12.478)	(13.292)	(4.063)	(4.422)
COVID2	−6.862	−6.371	20.938***	21.341***
	(12.194)	(12.398)	(4.435)	(4.487)
COVID3	−12.487	−13.300	15.416***	16.139***
	(10.486)	(11.099)	(3.972)	(4.251)
N	5846	5846	5846	5846
Source	Yes	Yes	Yes	Yes
Event	No	Yes	No	Yes
Trump	Yes	Yes	Yes	Yes

Note. *$p < .05$, **$p < .01$, ***$p < .005$.

As for the mentions of China (models 1 and 2), while the newspapers referred to China more during the trade war, they avoided mentioning China in the early stage of the pandemic. *Trade* was positive and statistically significant ($p < .005$), which is true of Hypothesis 1. In contrast, all the coefficients related to COVID-19 (i.e., *COVID1-3*) were different. During *COVID1*, the mentions of China decreased, which was statistically significant ($p < .005$), whereas the significant change in mentions of China was not observed for *COVID2* and *COVID3*. This does not match with Hypothesis 1 because the increase in mentions is expected under the crisis.

The volume of mentions about the United States (models 3 and 4) showed that the crises motivated a negative campaign against the United States mostly as expected. Hypothesis 2 predicts the increase in mentions about the United States during the crisis. In both models, *Trade*, *COVID2*, and *COVID3* were statistically significant ($p < .005$), all of which match Hypothesis 2. The only exception is *COVID1*. During the period of *COVID1*, the number of mentions of the United States declined according to model 5, but this change disappeared once the key events were controlled. Both indicate that Hypothesis 2 is not true for *COVID1* because the increase in mentions was not confirmed. Therefore, whereas the trade war increased the mentions of the United States, the pandemic outbreak increased the mentions as well but only for *COVID2* and *COVID3*.

Table 3. Results (Dependent Variables: Sentiment Scores).

	China		United States	
	(5)	(6)	(7)	(8)
Trade	0.041***	0.042***	−0.044***	−0.040*
	(0.010)	(0.012)	(0.016)	(0.016)
COVID1	−0.255***	−0.249***	0.043	0.033
	(0.022)	(0.024)	(0.027)	(0.030)
COVID2	−0.324***	−0.320***	−0.057***	−0.061***
	(0.014)	(0.014)	(0.020)	(0.021)
COVID3	−0.117***	−0.116***	−0.095***	−0.092***
	(0.015)	(0.016)	(0.019)	(0.020)
N	5846	5846	5846	5846
Source	Yes	Yes	Yes	Yes
Event	No	Yes	No	Yes
Trump	Yes	Yes	Yes	Yes

Note. *p < .05, **p < .01, ***p < .005.

In terms of the sentiment about China (models 5 and 6), whereas the change during the Sino-U.S. trade war was as expected, COVID-19 produced a different change in sentiments about China. *Trade* was positive and statistically significant ($p < .005$ for models 5 and 6), which is true of Hypothesis 3: The Chinese newspapers started to depict their country more positively during the crisis. However, in all stages of COVID-19, the sentiment about China declined, which was statistically significant ($p < .005$). Thus, though the trade war increased the sentiment about China, the pandemic outbreak served to diminish it.

The change in the sentiment about the United States (models 7 and 8) was consistent with the volume of mentions. The sentiment changed negatively for *Trade*, *COVID2*, and *COVID3*; all were statistically significant ($p < .005$ for both models 7 and 8). In the same way as the volume of mentions, the sentiment did not decline during *COVID1*. Chinese newspapers mentioned the United States more during *COVID2* and *COVID3*, portraying the United States quite negatively.

As the analysis above cannot illustrate how changes occurred, the models with the interaction between each treatment (*Trade, COVID1–3*) and topic were estimated to calculate the topic-specific effects. All control variables (source, events, and Trump administration dummies) were included in this interaction model.
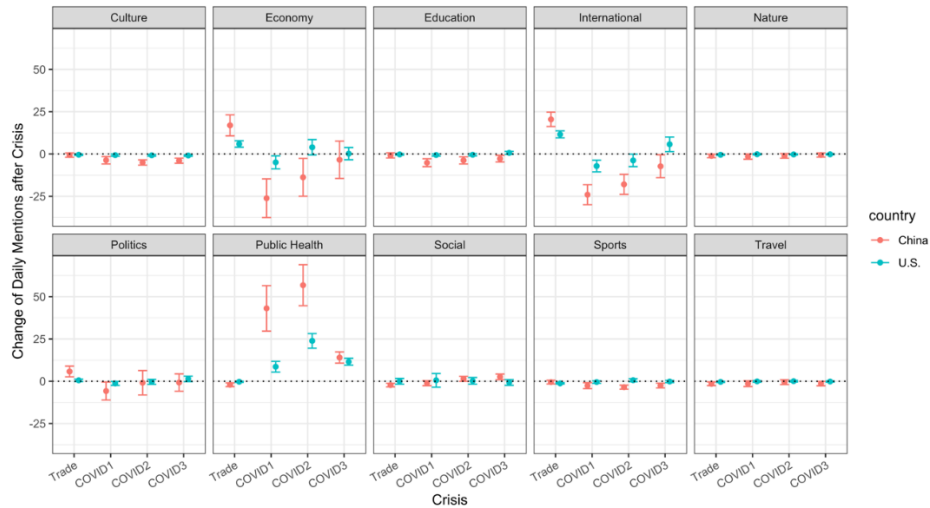
Figure 6. Effect of crisis in topic on mention (99% confidence interval).

Figures 6 shows the changes in the number of mentions during the crises within each topic. Hypotheses 1 and 2 predict an increase in mentions about both China and the United States in the topics related to each crisis. In the case of the Sino-U.S. trade war, the related topics are *International* and *Economy*, and the increase in mentions was observed as expected. The mentions of China in *Politics* also increased significantly during the trade war. For the pandemic, the related topics are *Public Health* and *International*, and for *Public Health*, the result is consistent with Hypotheses 1 and 2. However, for *International*, the number of mentions of China declined in all stages, whereas the United States was mentioned more only in the last period (*COVID3*).
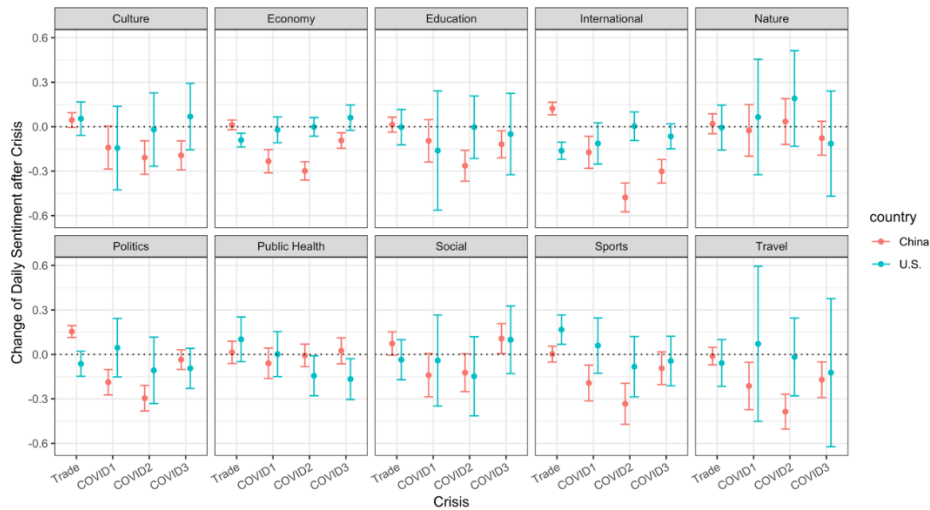

Figure 7. Effect of crisis in topic on sentiment (99% confidence interval).

Figure 7 depicts the effect of the two crises on the sentiment scores. In terms of China's sentiment, although the sentiment in *International* became more positive during the trade war, it was not confirmed for *Economy*. Note that the increase in the sentiment score was also significant for *Politics*. For the pandemic outbreak, the sentiment about China in *Public Health* did not change in *COVID2* and *COVID3* and therefore does not align with Hypothesis 3. Surprisingly, the sentiment about China declined in most other topics (*Travel, Sports, Politics, Education, Economy, Culture*). For the U.S. sentiment, a negative change was observed in both *International* and *Economy* during the trade war. The pandemic affected the illustration of the United States only in *Public Health*, and this change was observed only after *COVID2*. For other topics, the significant change in sentiment by the pandemic was not confirmed.

Discussion

Based on the literature review, it is expected that crises would incentivize China to initiate mediated public diplomacy to restore its international image. The statistical analysis in this article revealed that this prediction is primarily true for the trade war, but not for the pandemic.

The results suggest that crises indeed incentivize China's mediated public diplomacy activities. The hypotheses in this article predict the Chinese efforts on both agenda setting and frame building during a crisis. Because the hypotheses are true for the Sino-U.S. trade war in *International* and *Economy*, their logic can be attested. Note that in *Economy* of China, only a quantitative change was observed. Instead, both the volume of mentions and sentiment scores in *Politics* increased during the trade war. This might indicate that domestic and international political activities are closely related to the mediated public diplomacy during the trade war. The acceptance of Hypothesis 2 and 4 during the limited periods of COVID-19 further supports the hypotheses' logic. In the analysis, the evidence of the negative campaign (i.e., the increase in mentions and the decline in sentiments about the United States) was confirmed mostly after the pandemic spread across the globe and anti-Chinese sentiment spiked. The change in sentiment after the pandemic outbreak is limited to *Public Health*, not observed in *International*, because the negative campaign about the United States was already implemented because of the trade war. Indeed, the change in the number of mentions increased in both *International* and *Economy*. Therefore, China may have started its mediated public diplomacy efforts mainly after the global discourse became more confrontational, which is the logic behind the hypotheses: The incentive to restore international image drives mediated public diplomacy.

In the case of the pandemic, the sentiment about China declined because the media was deprived of positive stories to tell. Hypotheses 1 and 3 expect an increase in China's mentions and sentiments, but the result showed the opposite: the decline in sentiment was observed in many topics other than *Public Health*, and the number of articles about the *Economy* and *International* declined significantly. This result does not mean that China did not implement mediated public diplomacy activities, but it surely indicates China's struggle in telling its stories well. It seems that China did its best, as the sentiment in *Public Health* did not change even after the pandemic outbreak. It is different from the United States strikingly since COVID-19 reports appeared generally in negative tones. This change of tone about China was not observed probably because of the mediated public diplomacy activities during the pandemic, as suggested in the literature. However, because people's activities (such

as economic activities, cultural events, or diplomatic visits) were constrained because of the pandemic, China could not describe these events positively. As a result, the sentiment in most topics other than *Public Health* declined. Instead, after the pandemic outbreak, the mentions of China's international activities and economic achievements declined significantly. The decline in the volume of mentions was limited to *Economy* and *International*, both of which are important domains for China's soft power.

Crises in soft power drive China to attempt mediated public diplomacy, but only when there are opportunities. China could augment its mediated public diplomacy in response to the trade war because of both incentives and opportunities. The trade war incentivized China to conduct mediated public diplomacy to create a supportive global discourse. The trade war (or the Sino-U.S. rivalry and the Trump administration) served as an opportunity as well. Under the Trump administration, the United States withdrew from many international accords under the name of the "America First" doctrine (Arežina, 2019). Because the United States' nationalistic policy, including the trade war, indicated the internal crisis of democratic communities, the trade war may have served as the best opportunity for China to depict itself as a reliable alternative power. As a result, the increase in positive depiction of China was confirmed in the topics of *Economy*, *International*, and *Politics*. In contrast, the lack of opportunities constrains mediated public diplomacy campaigns. In the early stage of the pandemic, when it was mostly China's domestic problem, China's international reputation was not deeply damaged. Thus, the Chinese newspapers simply avoided mentioning China and deflected international attention. This decline in mentions was significant especially in *Economy* and *International*, both of which are considered important sources of China's soft power. Once the COVID-19 pandemic had evolved into a global problem, however, the international image of China was severely damaged, which should have incentivized China to restore its reputation. As the pandemic deprived the positive stories to tell, China had to rely on its negative campaign about the United States for the periods of *COVID2* and *COVID3*, and because China already began the negative campaign for the trade war, China resorted to international agenda building during the pandemic, dramatically increasing the volume of negative mentions about the United States. Therefore, while the crisis surely incentivized mediated public diplomacy, China wisely chose when and how to repair its international reputation.

The earlier discussion implies that China's mediated public diplomacy today has evolved from the simplistic, old, unidirectional communication (i.e., I speak, you listen), balancing between opportunities and incentives. When both opportunities and incentives exist for its mediated public diplomacy, China augments a positive depiction of itself and a negative campaign against its rival. However, once the opportunity ceases to exist, it constrains the implementation of mediated public diplomacy. It is therefore necessary to consider both incentives and opportunities as China's current mediated public diplomacy strategies, which is different from what the simplistic old unidirectional communication assumes. It is true, to a certain degree, that China sticks to the old unidirectional model as the fine line between propaganda and public diplomacy is blurry; however, this does not necessarily mean that China is oblivious to the international audience in mediated public diplomacy. Instead, the findings indicate that China cares deeply about credibility. If China was not concerned about credibility, the lack of opportunities would not necessarily hinder its mediated public diplomacy implementation because it could create any positive or negative story and broadcast it via its media outlets. However, this article demonstrates that China might change the method of mediated public diplomacy strategically

according to the situation. This strategic choice corresponds to the concept of listening in the work of Cull. According to Cull (2008a), listening (the act of collecting information about an international audience to redirect public diplomacy strategies) precedes any other public diplomacy activities, and the success of international broadcasting hinges on successful listening. Therefore, China strategically coordinates mediated public diplomacy depending on the situations, which is no longer simplistic authoritarian communication.

Conclusion

To theorize the Chinese mediated public diplomacy during a crisis, this article analyzes how Chinese international media created agenda and framing with respect to China and the United States in the moment of two crises: the Sino-U.S. trade war and COVID-19. The statistical analysis revealed that the trade war and the COVID-19 pandemic influenced the China's mediated public diplomacy differently. Whereas the trade war created incentives for further mediated public diplomacy endeavors, the nationalist policy by the Trump administration served as an opportunity, because it enabled China to portray itself as a reliable international actor. As a result, the trade war promoted Chinese mediated public diplomacy for both the positive depiction of itself and the negative campaign against the rival. The pandemic, in contrast, should have incentivized China's mediated public diplomacy because of the widespread criticism of China, but it also damaged the China's storytelling capacity. Because the pandemic affected many human activities in China, the positive stories to tell about China were lost. As a result, though China should have had a solid incentive for mediated public diplomacy, it could not portray itself positively during the pandemic because of limited opportunities and thus adopted the different strategies. During the pandemic, while China told its public health as positive as possible on its media, it avoided talking about its economy and international activities. Instead of its positive advertisement, China resorted to the negative campaign against the United States to distract the global attention from itself. This finding implies that China cares about audience and credibility in its public diplomacy; without the existence of stories to tell, the public diplomacy activities in the communication arena can be highly constrained, and according to the presence and the absence of incentives and opportunities, China strategically coordinates its mediated public diplomacy.

For future research, other rising powers can be investigated because the scope of this article is limited to China. China is a typical example of rising powers. Its reputational problem should be common to other rising powers because developed countries can have anxieties about other rising powers. The fine line between public diplomacy and propaganda should also be vague in other rising powers because their civil societies are generally not as mature as Western powers. Thus, state-led approaches are likely to be taken. However, this commonality might not allow the generalization of findings. For example, India has focused on public diplomacy to mitigate the anxieties because of its rise, and its primary actors are under India's Ministry of External Affairs (Mazumdar, 2020). Unlike China, however, the international broadcasting apparatus in India is undeveloped with a limited presence in the world (Thussu, 2020). There should be a variety of efforts on public diplomacy activities even among rising powers, and further research is necessary to this regard.

Research into receivers of international communication might be enumerated as another direction of future research. Although the polls about China showed that the negative evaluations increased over time, it is not clear how the evaluation would be without mediated public diplomacy. The increase in negative sentiment might be purely because of China's rise, and public diplomacy activities might have mitigated adversarial discourse. It is therefore necessary to know the effectiveness of mediated public diplomacy and how it works under a crisis, even though the causal analysis of this topic is challenging and quite limited.

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Appendix A: Text Preprocessing

The corpus is preprocessed in the following way. First, the articles with fewer than 40 words are removed from the corpus. After tokenization, the numbers, punctuations, separators, and symbols are removed and hyphens are split. The name of newspapers, *China Daily* and *People's Daily*, is also removed because both words are irrelevant but prevalent within the corpus. Tokenization is improved by making n-grams for strongly associated words.

For LSS, stopwords are removed for the model of China but not for the U.S. model because of the performance. The China model's correlation coefficients are 0.640 without stopwords and 0.570 with stopwords. After aggregating every individual data for each quarter, the correlation coefficients are 0.682 without stopwords and 0.627 with stopwords. For the U.S. model, the correlation coefficients are 0.324 without stopwords but 0.386 with stopwords. After aggregating every data for each quarter, the correlation coefficients are 0.643 without stopwords but 0.718 with stopwords.

For Newsmap and STM, stopwords are removed. For Newsmap, "us" (only the lowercase) is removed to identify the sentences about the United States. For STM, stemming is implemented to improve performance. Then, the size of the training data set is reduced based on the document and term frequency.

Appendix B: Key Events for Control.

ID	Date	Description
C1	May 14–15, 2017	First Belt and Road Forum for International Cooperation
C2	October 18–24, 2017	19th Party Congress
C3	April 2–4, 2018	Announcement of tariffs (up to 25% on 2nd, $50 billion on 4th)
C4	November 5–10, 2018	China International Expo
C5	April 25–27, 2019	Second Belt and Road Forum for International Cooperation
C6	August 23, 2019	Announcement of tariffs (ranging from 5% to 10% on $75 billion goods)
C7	October 1–7, 2019	70th National Holidays of PRC (National Holiday)
C8	October 25–29, 2020	The fifth plenum of the Chinese Communist Party (CCP)'s 19th Central Committee
U1	June 15, 2018	United States' announcement of tariffs (25%, $34 billion worth of goods)
U2	July 6, 2018	25% tariffs ($34 billion worth of goods)
U3	July 10, 2018	United States' announcement of tariffs (10%, $200 billions of goods)
U4	August 1, 2018	United States' announcement of increase in tariffs (from 10% to 25%)
U5	August 23, 2018	25% tariffs ($16 billion worth of goods)
U6	September 24, 2018	10% tariffs ($200 billion worth of goods)

U7	November 6, 2018	2018 U.S. elections
U8	December 1, 2018	Xi and Trump agreed to negotiate trade war at the G20 summit
U9	May 5, 2019	United States' announcement of tariffs (25% $200 billion)
U10	May 10, 2019	25% tariffs ($200 billion worth of goods)
U11	May 15, 2019	Addition of "Huawei" to the United States' entity list
U12	June 28-29, 2019	G20 Osaka Summit (Trump and Xi hold bilateral talks)
U13	August 01, 2019	United States' announcement of 10% tariffs ($300 billion)
U14	August 5, 2019	United States designated China as a "currency manipulator"
U15	August 13, 2019	United States postponed some of tariffs announced on August 1
U16	October 7, 2019	United States put 28 Chinese companies on its entity list
U17	January 15, 2020	Phase-one agreement over the China-U.S. trade war
U18	February 14, 2020	Decrease in tariffs on U.S. products
U19	March 2, 2020	United States' curb on Chinese citizens' right to work in propaganda outlets
U20	July 6, 2020	United States notified WHO of its decision of withdrawal
U21	July 22, 2020	United States ordered China to close its consulate in Houston