

How COVID-19 Affects Democracy Discourses in China: Evidence from Weibo and Zhihu*

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Abstract

How did COVID-19 affect the discourses of democracy on the Chinese Internet? With surging COVID-19 cases and deaths in Western democracies contrasting to the relatively quick defence in China, whether the democratic decision-making process is an optimal model in handling a large-scale crisis has been heatedly debated globally, including the Chinese internet. To understand the changes in online discussions on democracy in China, we analyze two most popular social media platforms in China: Weibo (Chinese version of Twitter) and Zhihu (Chinese version of Quora). We use the keyword-matching and machine-learning approach to select 336,351 Weibo posts related to democracy and COVID-19. For Zhihu, we crawl all 204 questions and 23,630 answers directly on democracy since 2011. We then classify each post from Weibo to one of three types of sentiments – positive, negative, and satirical – and one from Zhihu into positive and negative sentiment. We illustrate the temporal trends of sentiments and analyze the relationship among various democratic values and different countries. Our analyses draw several important findings regarding democracy discourses in China: 1) Since the outbreak of COVID-19, the online discussion of democracy has drastically increased and then decreased; 2) since the period when COVID-19 was not effectively controlled in many democracies, the Chinese view of democracy has become more negative and cynical; 3) The negative and cynical sentiments are strong in the context of “Western” democracies; 4) When the discussion is about democratic values in China, the sentiments are more likely positive.

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1 Introduction

COVID-19 has brought up an unprecedentedly heated debate on government capacity and political systems around the world. At first, when the outbreak began in China and the Chinese government implemented a lockdown in the epicenter city, criticism spiked globally on its harsh policy, questioning whether the authoritarian political system of China can handle the crisis (Cheibub, Hong and Przeworski 2020). Even within China, where public criticisms of the government are generally repressed or censored, there was an increasing demand for diverse channels of information and outcries about the mishandling of the pandemic by the Chinese government (Lu, Pan and Xu 2021). Scholars have also shown that the pandemic has encouraged Chinese citizens to overcome the Great Firewall and access outside information through VPN (Zachary et al. 2020). However, as COVID-19 infections soon came under control in China while they were exacerbating in major Western democracies, political discourse took a wild turn and the failure of Western democratic systems became widely discussed in numerous outlets in and outside of China. In particular, hostile attitudes and distrust toward Western democracies have notably increased among the Chinese public as the pandemic continues to unfold all over the world (Kloet, Lin and Chow 2020, Peng et al. 2020).

Although the systematic and wide discussions of democratic reform or democratic values have been limited under the Chinese Communist Party’s (CCP) single-party rule in China, democracy and its related values, such as human rights and freedom, are often mentioned in the public arena, including online discussions. How have discussions related to democracy changed over time in China? How did the pandemic shift public opinion on democracy and political reform in China? What features of the democratic system do Chinese citizens become most skeptical about due to their perception of Western democracies’ mishandling of the pandemic? These are the core research questions of this proposed study. Systematic studies have shown that democratic countries reacted to the spread of COVID-19 more slowly and less effectively than autocratic countries (Cheibub, Hong and Przeworski 2020).

This study uses the vast volume of text data from Chinese social media to examine how

Chinese citizens’ attitudes toward democratic institutions and democratic values have changed since the breakout of the pandemic. Social media provide space diverse voices from a society, especially to those previously marginalized or excluded by traditional media (Tucker et al. 2017). In autocracies, the political impact of social media has been further highlighted as the entry barrier and cost of using are low and government’s gate-keeping is trickier. Hence, social media provide a venue for political claims that have not been accepted in the major media, such as pro-democratic opinions in China (Roberts 2018). This study uses two social media platforms in China - Weibo and Zhihu - to address how COVID-19 affected the Chinese public’s views on democracy. Weibo is often depicted as a Chinese version of Twitter. It is one of the most widely used social networking platforms in China, with over 500 million active users a month.¹ In 2020, Weibo recorded a vast volume of messages of wide spectrum, from the criticism of the government related to Wuhan lockdown and Doctor Li Wenliang’s death to strong support for the Chinese government (Lu, Pan and Xu 2021). Zhihu is a Q&A platform similar to *Quora*. Zhihu has become one of the most popular and fastest-growing websites in China since its launch in December 2010 (Chen 2021).

We first illustrate the temporal trends of the frequency and the sentiments of democracy-related posts on Weibo. Then, using a machine learning method called the Bidirectional LSTM (BiLSTM) model, we label each post on democracy with one of three sentiments – positive, negative, and sarcastic – to identify the user’s attitude toward democracy. Furthermore, we analyze whether certain contents of posts, such as democratic values or different countries, affect the sentiments using regression analysis. Our analysis draw several important findings regarding democracy discourses in China: First, online discussion of democracy has drastically increased from the late January and then decreased since April 2020; Second, despite the decrease, the average frequency of discussion has remained larger than that before the pandemic; Third, since the period when COVID-19 was not effectively controlled in many democracies, the Chinese view of democracy has become more negative and cynical; Fourth, however, this does not mean

¹Sina Corp. 2020. “Weibo Reports Second Quarter 2020 Unaudited Financial Results” URL: <https://bit.ly/38wsieG>

Chinese people become against democratic values, as we find the negativity is specific to the context of “Western” democracies; Finally, when the post discusses democratic values in China, the sentiment is more likely positive.

This study derives a several contributions to the literature. First of all, as one of the most infectious and destructive diseases in human history, COVID-19 has profoundly damaged the daily lives and political and economic development of the world today. The short-term effects of the disease has been studied by many scholars, but how this event fundamentally shifted the political and economic atmosphere of a country in the long run has not been studied so far. Our study aims to examine a potential long-term impact of the pandemic by studying shifting perception of democracy among Chinese citizens. Second, ideological shifts among citizens in an authoritarian country have increasingly drawn academic attention. While propaganda from the government works rather effectively in China, the general public do exchange thoughts and opinions through social media and networks. This study plans to investigate how the general public discourses have evolved along with the propaganda messages from the state media and the government, and how global crisis expedite those shifts.

2 Discourse on Democracy in China

People’s Republic of China is not a democracy but the CCP has tried to incorporate some of democratic principles into the regime’s propaganda discourse. As China has become more connected to outside economically and politically, whether to include democratic procedures has become one of the core topics in discussion of political reform. For instance, Wu Bangguo directly put “five no’s, ” that China cannot adopt Western-style democracy.² More recently, the CCP began to redefine democracy and develop its own frame of democracy such as “consultative democracy (协商民主).” Consultative democracy was first put forward at the 18th National

²Wu Bangguo stated five nos to specify five democratic procedures that cannot be adopted in China in a speech he delivered to National People’s Congress on March 21, 2011. Five nos indicate 1) no system in which multiple parties govern in turn; 2) No diversification of guiding ideologies; 3) No separation of the three powers or creation a bicameral system; 4) No federal system; 5) No privatization.

Congress of the CCP held on November 8, 2012, by then-president Hu Jintao in a report to the congress.³ Since then, the idea of “consultative democracy” has frequently been mentioned in official statements of the CCP.⁴ At the 19th National Congress of the CCP on October 18, 2017, Xi Jinping stressed that “consultative democracy” is a crucial way to achieve the Party’s leadership and a unique form and strength of China’s socialist democracy.⁵ In 2019, Xi proposed another concept of democracy “whole-process democracy (全过程民主)” by stating “we are following a path of political development under socialism with Chinese characteristics. People’s democracy is a whole-process democracy.”⁶ China observers note that the Chinese leadership is attempting to emphasize its own brand of democracy with “Chinese characteristics.”⁷ Official terms conceptualizing Chinese version of democracy were at the center of these brand-making efforts.⁸

It is clear that what Chinese leaders and officials argue as China’s democracy or a democracy with Chinese characteristics cannot be classified as a democratic system according to the scholarly definitions of contemporary democracy which commonly hinge on the presence of competitive and fair election. The minimalist definition of Dahl (1989) requires competitive elections and the citizens’ right to participate in them. Similarly, Huntington (1993) states that a country can be considered democratic when “its most powerful collective decision-makers are selected through fair, honest, and periodic elections in which candidates freely compete for votes.” Diamond (1992) proposes four fundamental components of democracy: popular

³In the report, Hu stated that “we should stick to the socialist path of political development with Chinese characteristics.” http://www.xinhuanet.com//18cpcnc/2012-11/17/c_113711665.htm.

⁴“通过长期探索，我国建立起符合本国国情的中国特色社会主义民主政治制度，特别是创造了一种新的民主类型——协商民主。” (<http://opinion.people.com.cn/n1/2018/1125/c1003-30419616.html>) “协商民主是中国特色社会主义民主政治中独特的、独有的、独到的民主形式”，see 中国共产党的历史使命与行动价值 (http://www.news.cn/2021-08/26/c_1127795937.htm).

⁵党的十九大报告中，习近平总书记系统阐述了协商民主的地位和重要作用，指出协商民主是实现党的领导的重要方式，是我国社会主义民主政治的特有形式和独特优势，为推动协商民主广泛、多层、制度化发展指明了方向。Xi Jinping’s report at the 19th CPC National Congress available at <http://theory.people.com.cn/GB/n1/2018/0323/c40531-29884377.html>.

⁶“我们走的是一条中国特色社会主义政治发展道路，人民民主是一种全过程的民主，所有的重大立法决策都是依照程序、经过民主酝酿，通过科学决策、民主决策产生的。” (<http://www.npc.gov.cn/npc/kgfb/202110/13896600d0a44a828de770f086c0abde.shtml>)

⁷For instance, Jo Kim, “Exploring China’s New Narrative on Democracy”, *The Diplomat*, December 6, 2019.

⁸Other terms frequently appear in official propaganda are “socialist democracy (社会主义民主),” and the “four confidences (四个自信)” philosophy.

sovereignty, accountability of rulers, freedom, and the rule of law. With the one-party rule by the CCP, Chinese political system cannot satisfy any of the above definitions of contemporary democracy.

However, rather than rejecting the concept of democracy directly, the CCP has applied a strategy that reframes the democracy concepts to help legitimize the party rule (Hu 2019). With this strategy, the reframed discourse of democracy appear to be aligned with the fundamental values in Western democracies but in fact repress a practice of democratic procedures and work for the preservation of the authoritarian rule. In addition, the Chinese government allow limited discussion on democracy especially in online discussions. However, at the same time, the online space is closely monitored and censored by the government or its agencies (King, Pan and Roberts 2013). The CCP also controls foreign media's access to the Chinese network, while all domestic media in China remain either owned by the state or strictly controlled by the Communist Party. For instance, a large-scale rectification campaign was launched by the Chinese government in June 2019, where multiple influential UK- and US-based newspapers were blocked from the Chinese internet (Han and Chen 2021). The virtual space is also utilized by the state to fulfill governing functions and spread necessary propaganda for regime stability (Jiang, Meng and Zhang 2019).

In this context, how have democracy discourses develop and change among Chinese citizens under the authoritarian regime? How do people think about democracy while they live under the single-party rule? Several researchers have addressed this question, mainly using surveys. Wang (2007) uses three surveys to show that a large share of population support democracy in China. Over 90% of Chinese citizens think that having a democracy is good. However, the survey results also show that the majority of Chinese citizen prioritize economic growth and political stability over democratic values such as freedom of speech, political participation. Lu and Shi (2015), using the Asian Barometer Survey, reveal that the Chinese population conceptualizes democracy with guardianship by the government rather than liberal values. The majority of the respondents (over 70 percent of the respondents) associate democracy with a

government that pays attention to people's opinions or a government that takes the majority of people's interests into consideration when making decisions, and very few citizens (only around 10 percent) associate democracy with freedom of speech, election, and separation of power. [Dickson \(2016\)](#) and [Zhai \(2019; 2020\)](#) claim that Chinese citizens understand democracy differently, and that there are variations of this understanding among Chinese citizens. While democracy as defined by China's political leaders and intellectual elites mirrors Western definitions, the discussion of democracy among elites has little in common with the popular understanding of democracy in China. From survey data, [Dickson \(2016\)](#) finds that while Chinese citizens believe that the country is becoming increasingly democratic, less than five percent of survey respondents include formal democratic institutions such as electoral competition, multiple parties, and the presence of a legislature in their definition of democracy. [Zhai \(2019\)](#) shows that the perceptions of democracy have an effect on citizens' satisfaction with China's current political system, while [Zhai \(2020\)](#) shows an increase in dissatisfaction due to an increasing population who regard democracy procedurally.

COVID-19, as an unprecedented emergency in recent years that has affected the entire world, has affected numerous aspects of human beings social life and has also triggered an abundance of discussions on the type of regime. A few studies have investigated the impact of the COVID-19 pandemic on the Chinese citizens' perceptions of the Chinese political system, limited information environment, and the government's pandemic responses, which are closely related to their relative evaluations of political systems, including democracies. Most of these studies focus on the early period of the pandemic where the limited information environment in China blocked the Chinese people's access to accurate information about the disease and prevented the spread of criticism of the government's inappropriate reaction in the early stage. These studies also use cutting-edge methodological approaches, which are incorporated in our preliminary analyses.

[Lu, Pan and Xu \(2021\)](#) shows a significant increase of post on Weibo related to politics after the January 23 lockdown of Wuhan and the February 7 death of Dr. Li Wenliang.

This study pays particular attention to whether these increased posts are a criticism of or a support for the regime. They find Criticisms are directed at the government for perceived lack of action, incompetence, and wrongdoing—in particular, censoring information relevant to public welfare. Support is directed at the government for aggressive action and positive outcomes. The authors also split the support for government into the central government and local government. Our empirical approach is similar to this study that we collect all Weibo posts related to Covid-19 and democracy and analyze the sentiment of each post. Methodologically, the authors use human coded samples which are used for training for the supervised machine learning method. We adopt a similar approach in our preliminary data labeling. This paper mainly provides quantitative descriptions on the discussion of Covid-19 but does not address theoretical foundations related to the public’s sentiment on the Chinese government. However, it also provides us with some interesting results and methods for reference.

Another recent paper on the Chinese public’s reaction to the pandemic is [Zachary et al. \(2020\)](#). This study argues that the pandemic crisis increased the Chinese public’s attention to access to information that the regime considered sensitive. This paper mainly uses the following three kinds of data to provide evidence to this claim: First is the statistical data for China from a firm, AppAnnie, which records the iPhone application downloads data worldwide; the second is the total page views of Chinese language Wikipedia, and the third source is the Twitter data. The findings support the core argument. Using a variety of measures of circumvention of the Great Firewall, they show a significant and sustained impact of the crisis on the circumvention of censorship in China. This study finds the largest effect in areas most affected by the crisis – those closer to the crisis epicenter in Wuhan. In addition, information seeking across the Great Firewall extended beyond information about the virus to information the Chinese Communist Party (CCP) has long deemed sensitive, including information about historical political events and leaders that are highly censored in China.

Although these studies provide valuable analysis in understanding the role of an unprecedented crisis in changing perceptions and behaviors of the Chinese public regarding democratic

system and value, they focus exclusively on the early period of the pandemic where the limited information environment in China blocked Chinese people’s access to accurate information about the disease and prevented the spread of criticism of the government’s inappropriate reaction in the early stage. Our study expands the scope of analyses beyond the period covered by these studies and traces how the initial discourses have shifted as the pandemic situations change in China and globally. To our best knowledge, this is the first study of democracy in China that uses social media to mine public opinion and explore democracy discourses while most previous research on democracy issues is done through questionnaires. At the same time, social media, as a public platform, can well tap public opinions, which is an excellent platform to tap disparate views on democracy. This research aims to fill in this gap and shed new light on how public statements change towards democracy in an authoritarian regime.

3 Data and Empirical Strategy

3.1 Data Sources

Our main research period for Weibo is from January 2020 to December 2020, which allows a sufficient period to observe the discourse changes due to the COVID-19 pandemic. We exclude all official government accounts including state media accounts as we are interested in the citizens’ perception, rather than the government propaganda. We collect data from a longer period for Zhihu, from 2011 to 2020, to understand the discourse changes during the pandemic from a broader perspective. These two sources provide distinctive and thus complementary observations about discourse changes on democracy. Weibo users usually make brief comments about phenomena or express their emotions, whereas Zhihu users post longer texts, especially as an answer to a question, involving more intellectual communication. Normally questions on Zhihu attempt to gather opinions from many users, and the frequency and the length of answers vary significantly: Some questions may not be answered yet, while other questions may have thousands of answers. Our data collection strategy utilizes the different nature of these

two most popular platforms where Chinese citizens discuss various issues, including political topics, to understand how the Chinese people’s opinions on democracy have transformed over time, especially going through the unprecedented pandemic.

3.1.1 Weibo

To scrap the posts on democracy on Weibo, we first construct a democratic dictionary. Using the Variety of Democracy website as a reference, we extract democracy-related keywords.⁹ Our dictionary includes related words for electoral (procedural) democracy, liberal democracy, participatory democracy, and egalitarian democracy. We also add various keywords representing the democracy concepts used in China, especially by the CCP leadership.¹⁰ Using the democracy dictionary, we search through Weibo to identify all democracy-related posts in 2020. Further, we summarize common COVID-19 related words and construct a COVID-19 dictionary with a total of 60 keywords. We further filter the Weibo posts using the COVID-19 dictionary. The information we obtain include Weibo content, published time, whether it is a repost, forwarding content, and forwarding time. We initially identify 9,938,235 Weibo posts.

Among these selected Weibo posts, a large number of posts are not relevant to democracy, or a news report on a democracy. In order to further screen out the Weibo posts that are irrelevant to the discussion of democracy, we adapt the standardized process of supervised machine learning method. To train a machine learning model, first, we randomly select 5,000 posts and determine whether this post is related to COVID-19 and democracy through manual labeling.¹¹

After finishing the manual labeling process, we use the labeled sample to train the machine learning model. We use the Bidirectional LSTM (BiLSTM) model in the NLP Transfer learning

⁹<https://www.v-dem.net/en/data/data/v-dem-dataset-v11/>.

¹⁰These keywords include socialist democracy with Chinese characteristics (中国特色社会主义民主), consultative democracy (协商民主), people-oriented (民本), whole-process democracy (全过程民主), people’s democracy (人民民主), intra-party democracy (党内民主), benign governance (善治, 善政), etc. See Appendix for the full contents of our dictionary.

¹¹Two trained research assistants marked the sample data separately according to the coding manual developed by the authors and the authors made the final decision in case of disagreement. The detailed coding manual is available in the Appendix.

framework Kashgari to conduct the training and the predicting procedures (Eziz 2019). Long Short-Term Memory (LSTM) is a kind of deep learning structures using Recurrent Neural Networks (RNN) with memory. Recurrent Neural Networks are widely used in sequential data and show a good performance in tasks related to text (Zhang and Pan 2019). A Bidirectional LSTM (BiLSTM) is a sequence processing model that consists of two LSTM layers with forward and backward direction.¹²

The standardized supervised machine learning process divides the manually labelled sample data into three sets: training set, validation set, and test set. We set the proportion of the three sets as 70%, 15%, and 15%. The training set is used in the training process of the model, requiring the largest proportion of data. The validation set is used to enable model tuning during the training. The test set is used to examine the predictive ability of the trained model. Since the test set is from our manual labelling, we can measure the accuracy by comparing the predicted results of the model to the manual labelling. From this process, we reach a precision of 85.8%.

After the training process finished, we use the trained model to predict the rest of the data we scrap through the dictionary-based filtering method. After this procedure, we obtain 336,351 Weibo posts as the final dataset. The average character length in our sample is 85.6, which shows that Weibo users tend to publish short posts despite that the firm removed the 140 words restriction in 2016. Overall, March was the month with the most posts related to democracy discussions, accounting for 35.8% of the total. February and April record relatively more posts related to democracy, accounting for 12.4% and 18.1% of the total data, respectively. Other months are relatively rare. The period from February to April was also the time when the outbreak was brought under control in China and the outbreak began abroad.

¹²A deep learning model usually has multi-layers. A layer is a structure or network topology in the model architecture, and it can take information from the previous layers or pass information to the next layer.

3.1.2 Zhihu

Zhihu has become one of the most popular and fastest-growing websites in China since its launch in December 2010 ([Chen 2021](#)). On Zhihu, users ask questions that other users can then answer. In order to explore all the discussions related to democracy, we crawl all the questions and answers under the topic of democracy. Each question on Zhihu is labelled with one or several keywords by automatic category hashtags. Although Zhihu’s automatic hashtagging is relatively accurate, some questions are mislabelled. We find that some of the questions that are not related to democracy are labelled as a democracy question, while some of the questions on democracy are not labelled as a democracy-related question.

To collect all democracy-relevant questions and answers, we scrap all questions under the categories of democracy, freedom, or human rights. We then selected the questions that indeed mention at least one for these three keywords. Secondly, using the search function of Zhihu, we search the three keywords, and collect additional questions. Then all questions are manually screened to remove questions that have nothing to do with democracy. For instance, the question “what do you think of the phrase “self-discipline is freedom”? (大家是怎么看待 “自律即自由” 这句话的?)” contains the keyword freedom, but irrelevant to democracy. Hence, we manually remove this type of questions from our sample. We then collect all answers to the selected questions. We remove the answers with less than 5 words from our data. In the end, we get 204 democracy-related questions and 23,630 answers to those questions. Among the 23,630 answers, 6,393 of them were posted in 2020.

3.2 Measuring the sentiment toward democracy

One method to understand the changing attitude of Chinese citizens’ toward democracy is an analysis of sentiments in their online discussion of democracy. While most studies using sentiment analysis of text data divide the sentiment into two groups, positive and negative ([Rice and Zorn 2021](#), [Tian et al. 2020](#)), we find this classification might cause a severe bias in our analysis. Unlike public speech or official statement data, Weibo posts contain a large

volume of casual, brief statement, which often makes the judgement of sentiment tricky. One major reason is that a considerable number of posts on democracy that are identified as positive posts by popular sentiment classification methods for Chinese language, e.g. Baidu Senta, are in fact cynical or sarcastic comments about democracy. These satirical posts use positive adjectives, but the true implication is associated with a rather negative emotion. A few selected examples of such posts are the followings:

“There is democracy, nothing to fear, free air does not spread the virus (有民主护体，一切都不用怕，自由的空气不传播病毒).”

“The US has good protection of human rights, everyone has the right to be infected and infect others. (美国人权保护得不错，每个人都有被感染和感染别人的权利).”

“Democracy and freedom can defeat COVID-19. Come on, brave democracy and freedom fighters! (民主自由可以战胜新冠，加油勇敢的民主自由战士！)”

Although non-binary methods exist for sentiment analysis such as Rheault et al. (2016) which use GloVe algorithm (Pennington J 2014) to creates a vector space to measure the corpus sentiment as polarity score, we notice that this approach does not work well with satirical texts as well. We confirm that this method also categorizes most sarcastic languages into a positive polarity. Dictionary-based sentiment analysis tools (Liu 2010, Young and Soroka 2012) show the same problem, classifying satirical or cynical sentences into positive sentiments. For these reasons, we use the machine learning method to train and classify the Weibo posts into three types of sentiment – positive, negative, and satiric sentiment. We again use BiLSTM as the supervised machine learning model and the final outcomes reached a precision of 88.9%. Among the overall corpus, we got 57.8% negative posts, 26.4% positive posts, and 15.8% satiric posts. Examples of each sentiment is listed in the Appendix as Table A2 (negative), Table A1

(positive), and Table A3 and A4 (satiric).

We label Zhihu questions and answers with sentiments. Unlike Weibo, the contents on Zhihu are rarely embedded with sarcasm, as they mean intellectual discourses on the given questions. Therefore, for Zhihu texts, we classify the sentiments of each post into positive or negative sentiment, employing the SKEP (Sentiment Knowledge Enhanced Pre-training) using Baidu Senta (Tian et al. 2020). SKEP is an industrial level framework that could be used for sentiment analysis, it is open-sourced and developed by Baidu, one of the biggest artificial intelligence company in China. The SKEP method significantly outperforms several strong pre-training methods such as BERT (Devlin et al. 2019) on sentiment tasks, and also achieves new state-of-the-art results. As a pre-training method, we can directly use the trained model to classify the sentiment into positive or negative. After finish the prediction process, among the overall corpus, we got 18,390 negative answers and 5,240 positive answers.

From the time perspective, between 2011 and 2018, the number of democracy-related posts was relatively low. But the number of democracy-related answers in 2020 and 2021 accounted for 27.1% and 39.3% of the total data, respectively. The followings are among the most popular questions:

如何理解外交部长王毅与美方谈话时提到,「民主不是可口可乐,全世界一个味道」?
*How to understand what Foreign Minister Wang Yi mentioned in his talk with the US side
 “Democracy is not Coca-Cola that promises the same taste everywhere in the world”?*

怎么看待女子回国要喝矿泉水, 否则就是没有人权? *What do you think of the woman
 returning to China and asking for mineral water, otherwise there is no human rights?*

如何看待西方多国以「新疆人权问题」为由对华施压, 外交部发言人历数上述国家的反人权历史回应? *What do you think of Western countries’ pressure on China on the grounds
 of the “human rights issue in Xinjiang” and the foreign Ministry spokesperson’s response to*

these countries' history of human rights violations?

4 Results

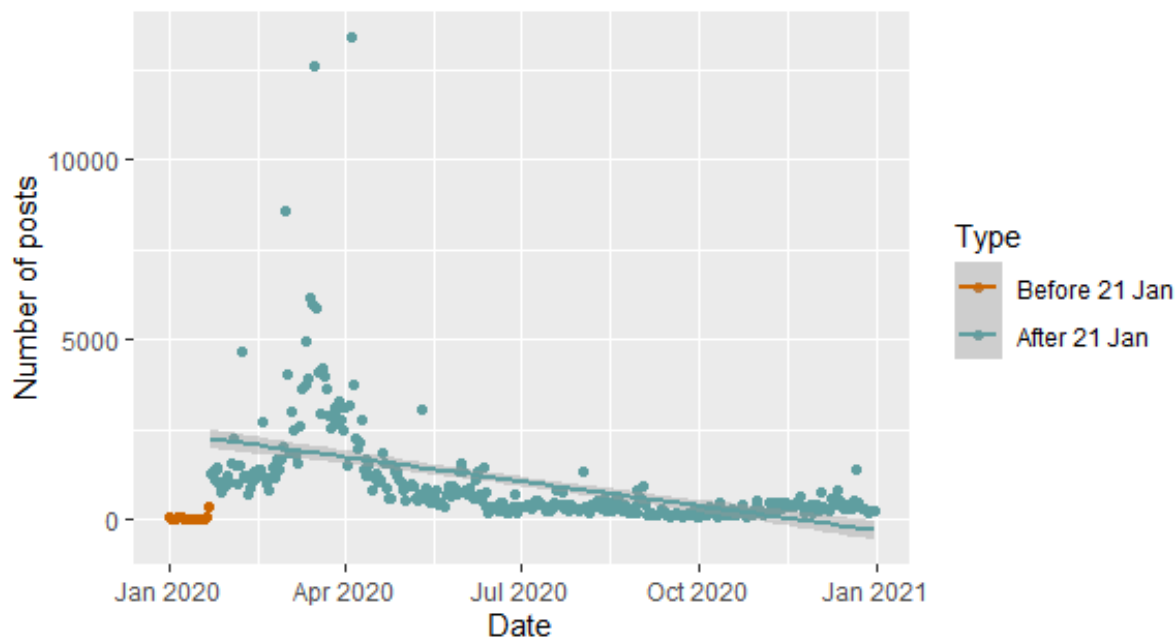
4.1 Weibo

How have democracy-related discussions online changed after the outbreak of COVID-19? To answer this question, we first illustrate the trend of 336,351 Weibo posts on COVID-19 and democracy in 2020. As shown in Figure 1, democracy-related posts sharply increased immediately after January 20, 2020, when the human-to-human transmission of a respiratory virus was confirmed.¹³ As Wuhan was put on lockdown from January 23, 2020, the posts mentioning democracy and relevant values continue to increase. The dramatic increase of democracy-related posts at the initial stage of the epidemic shown in our data is consistent with the findings of Lu, Pan and Xu (2021). As media dependency theory predicts, in periods of crisis and uncertainty, people tend to rely more on mass media to ensure safety and seek more information (Ball-Rokeach, J and DeFleur 1976, Zachary et al. 2020). The increased search naturally led to increased sharing of information and discussion of relevant values in China. The discussion included China's limited media environment and repressed freedom of speech during the period of uncertainty and fear (Lu, Pan and Xu 2021). The local government's failure in early reaction to the epidemic, obstruction of internal reports by local doctors including Li Wenliang, who later passed away due to Covid-19, and eventual adoption of an extreme policy like a lockdown of entire city caused a hail of discussion related to basic democratic values such as human rights and freedom of speech on Weibo. The peak date of democracy-related discussion on Weibo marked in Figure 1 is April 8, 2020, on which Wuhan lockdown was lifted.

This early trend is reflected in findings in Figure 2 where we show the composition of

¹³News on human-to-human transmission spread fast in and outside China. E.g., <https://new.qq.com/rain/a/20210113A0EC2100>, <https://www.nbcnews.com/news/world/human-human-transmission-confirmed-china-coronavirus-n1118866>.

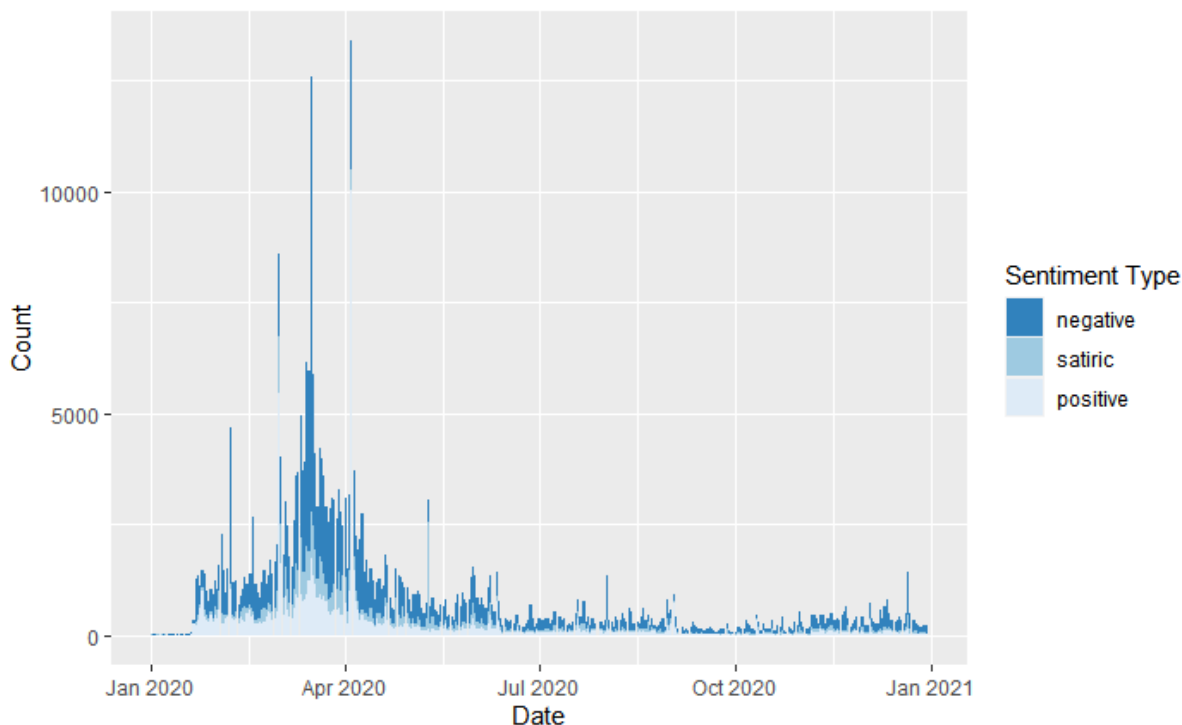
Figure 1: Daily Frequency of Weibo Posts on Democracy and Covid-19



sentiments of daily Weibo posts on democracy. To draw this figure, we classify the sentiment of each post into one of three categories – positive, satiric, and negative. We confirm that democracy-related posts on Weibo during the early stage of the epidemic, i.e., the late January and February, 2020, show predominantly positive sentiments toward democracy and democratic values. However, as the COVID-19 situation in China brought under control from March while it began to worsen in other countries around the world, online opinion on Weibo toward democracy turned around. In March and April, 2020, when the pandemic situation reversed in Western democracies and China, the Chinese public not only most actively discussed about democracy and its relevant values, but also their views turned to negative, sarcastic, and even hostile sentiments. As early as March, it is visually clear that the posts with negative sentiment toward democracy accounts for the majority of democracy-related posts on Weibo. Sarcastic views take a significant share of posts as well especially in March.

Finally, Figure 1 and Figure 2 also show that, although the number of discussions decreased after April, the overall discussion level was significantly higher than around the beginning of January 2020, that is, before the COVID-19 outbreak.

Figure 2: Weibo Daily Posts For Different Sentiment Types



To further verify our observation of an increasing share of negative sentiments on democracy, we calculate and illustrate the monthly share of negative, positive and satiric posts as Figure 3. Figure A1 in the Appendix instead illustrate daily share of negative posts, including satiric posts. We also show the weekly sentiment trend as well in Figure A2 in the Appendix.

The share of negative posts is at the top the plot throughout the period in Figure 3. In weekly trend presented in Figure A2, we detect several weeks where the share of positive posts exceeds that of negative posts. However, in all such cases, such a trend is followed by a drastic increase of negative posts and a decrease of positive posts in the subsequent week. Generally speaking, from January to April, the criticism of democracy and democratic values were relatively limited and positive discussions of democratic values were widely circulated in Weibo. However, from April 2020, as Western democracies, especially the United States and United Kingdom, failed to curb the spread of pandemic within the country, creating a sharp contrast to the relatively controlled situation in China. The Chinese government's propaganda used this contrast as a critical opportunity to highlight it among the Chinese public as a failure

of Western democracy and a success of the Chinese political system.¹⁴ Since around April 2020, the share of posts with negative sentiment towards democracy and related values further increase, while positive evaluation of democracy decrease.

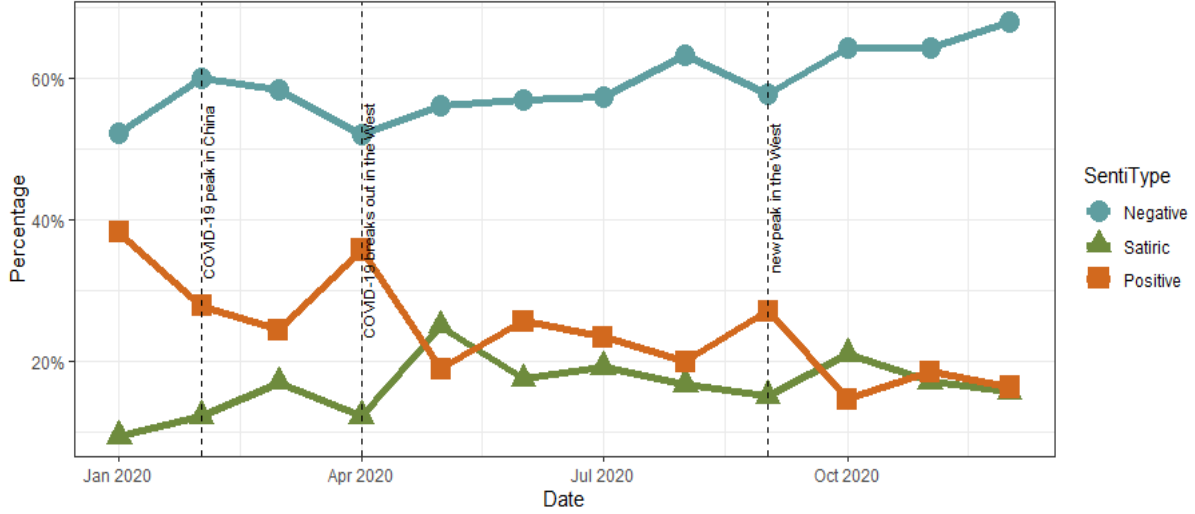
Another turning point observed in Figure 3 is October, 2020. By then, China had subdued the disease almost completely, but the infection cases kept increasing or uncurbed in many countries outside China, and the deaths due to the pandemic reached a new global record.¹⁵ President Donald Trump, who had, on the one hand, outspokenly belittled the risk of Covid-19 and, on the other hand, repeatedly blamed China for the pandemic, was tested positive for Covid-19 in October. Moreover, mounting political tension between the US and China over the issue of Hong Kong and Xinjiang, and the origin of Covid-19 turned the pandemic reaction by the US government as a highly political issue in China. Against this backdrop, the proportion of Weibo posts with negative sentiment about democracy further increased, and the ratio of positive comments further declined, since October 2020. By the end of the year the total share of posts with negative sentiment, including cynical posts, reach approximately 90 percent of all Weibo posts on democracy and Covid-19.

Next, we use the regression analysis to assess the Chinese Weibo users' sentiments toward democracy more systematically. Especially, our analysis focuses on which contents are more associated with negative or positive sentiments toward democracy. For the analysis, in addition to a dictionary for general concepts of democracy and democratic values, we construct a separate dictionary for democracy-related concepts unique to the Chinese context. Also we build location dictionaries to identify the context of each post. All dictionaries are listed in the Appendix.

¹⁴A typical example is “The United States government has failed its own people and the world (美国政府对不起自己的人民，也愧对世界)” published in *Global Times* on April, 29, 2020. This article argues that, as American democracy has become too polarized, at this important historical juncture, it can provide neither the true responsibility of the country's ruling authority, nor the unity of American society. The full article is available at https://mp.weixin.qq.com/s/-DZ_4xMELFG10V194Btj7g.

¹⁵Coronavirus cases hit records in Europe in mid-October (https://www.washingtonpost.com/world/europe/covid-europe-records/2020/10/15/0126c256-0ee7-11eb-b404-8d1e675ec701_story.html), while the US broke the records of highest daily number of Covid-19 cases multiple times in the late October (<https://www.npr.org/sections/coronavirus-live-updates/2020/10/24/927389093/u-s-records-highest-number-of-coronavirus-cases-in-1-day-since-pandemic-began>, <https://www.nbcnews.com/news/us-news/u-s-records-more-90-000-covid-19-cases-one-n1245450>)

Figure 3: Weibo Monthly Sentiment Trend



Using these dictionaries, we label a post as a China-related post if the post has any keyword from the China dictionaries and the same method is employed to identify the posts on Western democracies. We write code to search all posts automatically and divide the Weibo posts into China-related and Western-related to examine if the sentiments of Chinese citizens are different when they discuss democracy in different contexts.

We also examine whether emotional attitudes of Weibo users vary across democratic values they discuss in the post. We focus on three core values of democracy and use them as the keyword: democracy (民主), freedom (自由), and human rights (人权). In addition, we analyze minzhu (皿煮) carefully in the Chinese context. minzhu (皿煮) is a homonym of democracy (民主) in Chinese, often used to indicate democracy in the Chinese internet. We attempt to trace the origin of the word minzhu (皿煮), and find a question on Zhihu that asking about its origin.¹⁶ Although it is not clear when and why the homonym began to be used online, at least it has been more than 7 years. One answer to the question states that “In 2012 years or so, if one reply the phrase “democracy” directly in the Baidu forum or other platforms, the word will be determined to be sensitive and potentially blocked. In order to avoid being censored, many people use the homophone minzhu (皿煮) instead. Later minzhu (皿煮) slowly developed

¹⁶<https://www.zhihu.com/question/25668838>

some pejorative connotations.” This answer gives us a glimpse of possible reasons of the use of minzhu (民主) in Chinese online.

Table 1 shows the results of the regression using all Weibo posts. The dependent variable in Column (1) is the probability that a given post carries a negative sentiment. The results show a clear divergence of sentiment when Weibo users discuss democracy in the Chinese context and the Western context. Chinese citizens tend to express negative feelings when they engage in discussions related to Western democracies. When it comes to discussions about democratic values in China, Weibo users are less likely to show negative emotions. We also examine the subjects that induce negative sentiment: Weibo users expressed more negative feelings when the content explicitly addresses democracy or human rights. Especially when the users use the word minzhu (民主) to discuss democracy, such posts are much more likely to carry negative sentiment. Among democratic values, we only find that discussions of freedom is less likely to be associated with negative sentiment. The dependent variable in Column (2) is whether the emotion of a post is sarcastic or not. Discussions of both China and Western democracies are less likely to link to satiric posts, as opposed to positive or negative posts. The only concept that increases the probability of sarcastic sentiment in a post is freedom. Column (3) presents a combined analysis, whether the sentiment of a post is negative or sarcastic, as opposed to positive. Given the large volume of negative posts, the overall results are similar to the results in Column (1). Columns (4), (5), and (6) add the month fixed effects to Column (1), (2), and (3), respectively, where we confirm the results remain consistent. Overall, our findings suggest that the negative view of democracy is limited to the discussion of Western democracies. When the context of discussion is on China, Chinese citizens more likely reveal positive sentiments toward democracy. Among democratic values, freedom is more likely to be associated with positive feelings, whereas democracy, human rights and homonym of democracy, minzhu (民主) are strongly associated with negative sentiment.

We argue that less effective reactions by the Western democratic governments to curb the spread of the pandemic caused the Chinese public perceive democracy more negatively and

Table 1: Sentiments Toward Democracy on Weibo

	<i>Dependent variable:</i>					
	Negative	Satiric	Negative+Satiric	Negative	Satiric	Negative+Satiric
	(1)	(2)	(3)	(4)	(5)	(6)
China related	-0.1302*** (0.0030)	-0.3897*** (0.0060)	-0.3105*** (0.0032)	-0.1290*** (0.0030)	-0.3572*** (0.0060)	-0.2874*** (0.0032)
Western related	0.2768*** (0.0026)	-0.1167*** (0.0033)	0.2859*** (0.0032)	0.3122*** (0.0028)	-0.1520*** (0.0035)	0.3064*** (0.0033)
Democracy 民主	0.5333*** (0.0080)	-0.0470*** (0.0090)	0.7789*** (0.0110)	0.5326*** (0.0080)	-0.0590*** (0.0091)	0.7691*** (0.0111)
Freedom 自由	-0.1305*** (0.0044)	0.0985*** (0.0053)	-0.0770*** (0.0049)	-0.1360*** (0.0045)	0.0795*** (0.0054)	-0.0973*** (0.0049)
Human Rights 人权	0.4030*** (0.0057)	-0.4096*** (0.0087)	0.2597*** (0.0063)	0.4309*** (0.0058)	-0.4518*** (0.0089)	0.2754*** (0.0065)
Minzhu 皿煮	1.1940*** (0.0289)	-0.5730*** (0.0340)	1.4149*** (0.0436)	1.1850*** (0.0289)	-0.5894*** (0.0341)	1.3878*** (0.0436)
Month FE	N	N	N	Y	Y	Y
Observations	333,532	333,532	333,532	333,532	333,532	333,532
Log Likelihood	-212,823	-140,446	-176,730	-211,056	-138,927	-174,816
Akaike Inf. Crit.	425,659	280,906	353,475	422,147	277,889	349,669

Notes. Logit model is used. Robust standard errors are in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

cynically. To directly test this mechanism, we collect the daily number of new confirmed cases in each country from [Ritchie et al. \(2020\)](#) to capture the effectiveness of the government's handling of the pandemic and include it in the regression.¹⁷

We then run regression using the negative and satiric sentiments of Weibo posts as the dependent variables. Table 2 shows the regression results. The COVID-19 data used in the regression is daily number of new cases per million. We also use the absolute new cases as an alternative measure, and the results are similar as shown in Table A7 in the Appendix. First, we examine the relationship between daily confirmed cases in various countries and the negative sentiment in the Weibo posts related to democracy. All regressions include the month fixed effects, which is critical to control for the overall trend of the disease and the drastic public opinion changes over time in China. In Column (1), we include the daily confirmed cases daily in China. The result shows a negative correlation, indicating that when China's

¹⁷The data is based on the COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU). The COVID-19 data and specification is available at <https://github.com/owid/COVID-19-data/tree/master/public/data/>.

Table 2: Daily Infection Cases Per Million and Sentiments Toward Democracy

	<i>Dependent variable: Negative and Satiric Sentiment</i>						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
China	-0.0062*** (0.0012)						-0.0072*** (0.0012)
United States		0.0002*** (0.00002)					0.0002*** (0.00002)
United Kingdom			0.0007*** (0.00002)				0.0004*** (0.00002)
India				-0.0001 (0.0003)			0.0010*** (0.0003)
Japan					0.0061*** (0.0004)		0.0031*** (0.0005)
France						0.0006*** (0.00001)	0.0005*** (0.00001)
Month FE	Y	Y	Y	Y	Y	Y	Y
Observations	331,434	331,434	322,416	323,333	331,434	330,099	322,416
R ²	0.0196	0.0197	0.0202	0.0170	0.0200	0.0379	0.0367
Adjusted R ²	0.0196	0.0197	0.0202	0.0170	0.0200	0.0379	0.0366

Notes. Logit model is used. Robust standard errors are in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

daily confirmed cases increases, the probability that Weibo posts with negative sentiments toward democracy are likely to decrease on the same day. Then, we employ the confirmed cases in major democratic countries in the world including key Western democracies. Column (2) to Column (6) uses the daily confirmed cases in the United States, United Kingdom, India, Japan and France, respectively. Column (7) is the full model using daily confirmed cases from all these countries. As the results clearly show, the number of newly confirmed Covid-19 cases in major democracies are positively and significantly associated with negative sentiments toward democracy on Weibo posts. As a robustness check, we also use negative sentiment as the dependent variable and show the regression results in Table A6 and Table A5, where we confirm the results remain consistent.

4.2 Zhihu

Due to the sheer volume of posts on Weibo, we limit our Weibo data collection to democracy-related posts in the context of Covid-19. To understand the findings in a broader context,

we collect text data on democracy-related discussions from Zhihu. The time range of data collected from Zhihu is from 2011 to 2021, which covers the entire period since the beginning of the website. By utilizing data from a long time period, our analysis may provide a more comprehensive picture of the perceptions of democracy among Chinese citizens and how they shift in 2020 under the influence of Covid-19. Figure 4 shows the trend of democracy-related discussion in Zhihu since 2011. There are a few critical facts Figure 4 present. First, until 2020, democracy-related discussions were extremely rare on Zhihu. 2020 is unique that the discussion on the topic surges drastically on this website. At maximum, more than 1500 posts were made on democracy within on day.¹⁸ Second, after 2020, the frequency of discussions on democracy substantially decline but still remain at a higher level than before 2020. This indicate that the Chinese citizens' interests in democracy have drastically increased due to Covid-19 and are more widely expressed online as well. Finally, Figure 4 also shows that the overall sentiment toward democracy in the questions and answers are predominantly negative, especially in the few years.

Similar to Figure 3, we draw how the ratio of Zhihu sentiment changed in 2020 in Figure 5. Figure A3 in the Appendix illustrate the weekly sentiment trend in Zhihu. Overall, we find a similar pattern to Weibo that as the pandemic spread the rest of the world, particularly in Western democracies, while curbed in China, in April 2020, the proportion of negative sentiment in democracy-related discussions gradually increased. Unlike Weibo, however, after August 2020, the negative sentiments toward democracy show a downward trend on Zhihu.

Table 3 presents the results from the regression analysis using Zhihu data to examine the

¹⁸The peak day is July 30, 2020, and almost all posts are answers to one question posted on the previous day, “what do you think of the response of Zhuang Zuyi, wife of the former US consul General in Chengdu, who said that her Nazi-analogy was straightforward and would not change her words as she was free to express her own thoughts? (如何看待前美国驻成都总领事的夫人庄祖宜回应「纳粹」等言论: 是直率用词不会改, 有自由抒发个人想法?)” The background of this question is, on July 1, Zhuang Zuyi, a wife of the US consul General in Chengdu at the time, made an analogy in her blog that her departure from Chengdu earlier this year to return to the US due to the epidemic was like “Jews hiding from the Nazis.” This expression aroused dissatisfaction and criticism from Chinese netizens. Amid intensifying tension between the US and China, the Chinese government announced the closure of the US Consulate in Chengdu on July 24. In the evening of July 28, Zhuang responded to the criticisms from the Chinese public that she had freedom to express her personal views, which prompted further heated debate online.

Figure 4: Zhihu Daily Posts Number Trend since 2011

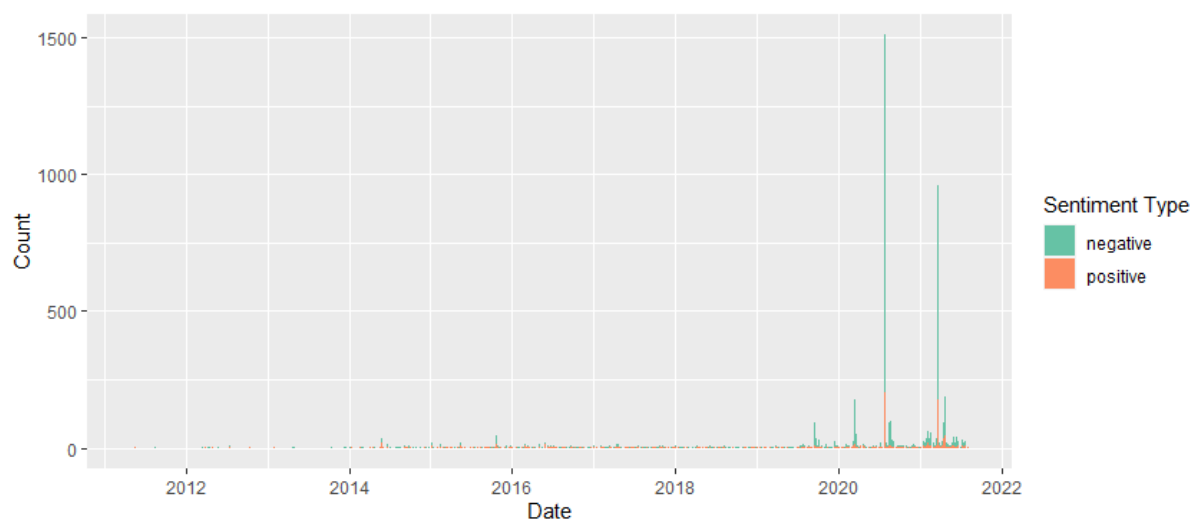


Figure 5: Zhihu Monthly Percentage Trend

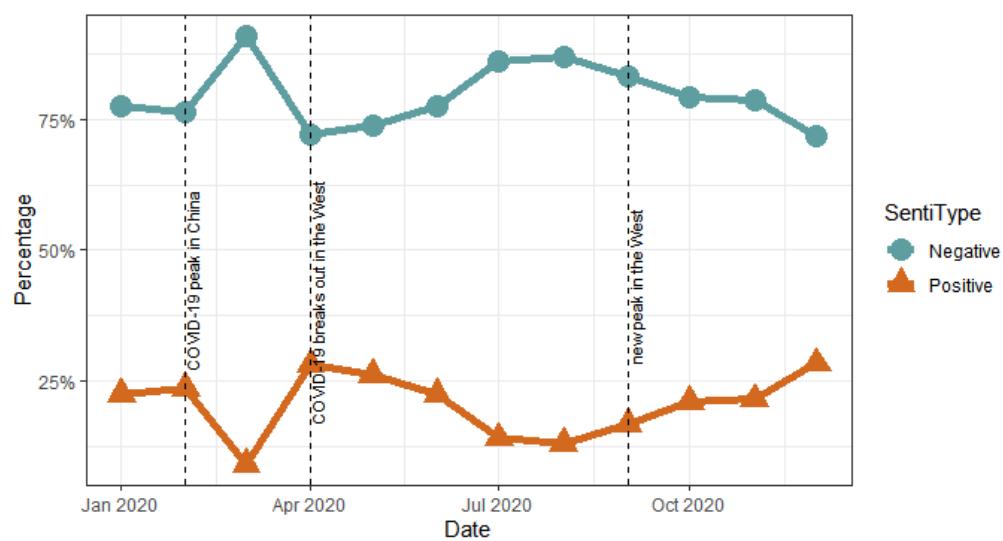


Table 3: Zhihu Sentiment Logistic Regression

	<i>Dependent variable: Negative Sentiment</i>					
	2020	2020	2020	2020	2020	Overall
	(1)	(2)	(3)	(4)	(5)	(6)
China related	-0.0119 (0.0292)		-0.0287 (0.0288)	-0.0568* (0.0290)	-0.0598** (0.0293)	-0.0368** (0.0177)
Western related	0.1572*** (0.0204)		0.1542*** (0.0233)	0.1549*** (0.0236)	0.1555*** (0.0237)	0.0822*** (0.0119)
Democracy 民主		0.0940*** (0.0161)	0.0297* (0.0163)	0.0521*** (0.0180)	0.0579*** (0.0185)	0.0968*** (0.0126)
Freedom 自由		-0.0645*** (0.0092)	-0.0700*** (0.0094)	-0.0555*** (0.0092)	-0.0549*** (0.0092)	-0.0126*** (0.0035)
Human Rights 人权		0.4652*** (0.1025)	0.4706*** (0.1032)	0.3132*** (0.0998)	0.2953*** (0.0991)	0.2335*** (0.0520)
Minzhu 皿煮		0.5224 (0.3293)	0.3775 (0.3250)	0.3931 (0.3299)	0.3961 (0.3288)	0.1633 (0.1166)
Month FE	N	N	N	Y	Y	Y
Question FE	N	N	N	N	Y	Y
Observations	6,393	6,393	6,393	6,393	6,393	23,630
Log Likelihood	-2,712.7	-2,686.9	-2,659.9	-2,610.5	-2,607.7	-10,791.7
Akaike Inf. Crit.	5,431.5	5,383.9	5,333.9	5,257.0	5,253.5	22,025.4

Note:

*p<0.1; **p<0.05; ***p<0.01

contents of posts related to negative sentiment. We find the results are similar to the analysis of Weibo posts. Zhihu users tend to express more negative feelings when the discussion is about or in the context of Western democracies. Questions and answers about China are consistently less likely associated with negative emotions. Certain democratic values are considered more positive: while the discussions on democracy and human rights are more attached to negative sentiments, freedom is less likely to be involved with negative emotions. One difference from the Weibo analysis is that we did not find any significant effect of minzhu (皿煮) on negative sentiments. We interpret this null finding as an outcome of the different style of expression and opinion revelation by users in two platforms. While Weibo is normally a place for instant and often emotional reaction to an event or a trendy topic, Zhihu is used for a more refined, intellectual, and interactive discourses on a topic. For the same reason, we could not identify many satiric comments in Zhihu, unlike Weibo. Therefore, the use of minzhu (皿煮), a cynical homonym of democracy, in Zhihu is much more limited and thus we find no significant effects on sentiment.

5 Conclusion

As the world's second largest economy and the most populous country, China's political stability and changes have always been a topic of mainstream academia. In this regards, whether Chinese Communist Party would adopt more democratic institutions as part of political reform has also been long debated. At the same time, with its economic rise and the political tension with the United States, scholars have noticed the rising patriotism among Chinese citizens, which leads to strong supports for the current political system in China.

In this paper, we examine how the unprecedented pandemic crisis affected Chinese citizens' perception of democracy and democratic values using social media data. We have several critical findings related to democracy perceptions in China. First, the pandemic led to a unprecedented, explosive outburst of democracy-related discussions on China's social media. However, as COVID-19 spread around the world and the democratic countries failed to curb the disease in a sharp contrast to the situation in China, Chinese citizens' view of democracy has become negative and cynical.

Our study suggests that Covid-19 provided an crucial opportunity for the Chinese citizens to re-gauge its political system and demand more transparency and responsibility to the government especially at the early stage of the pandemic. However, as the pandemic spread throughout the world, the Chinese government could turn the crisis into a chance to tighten the social control and boast the pandemic control as a national success story. Under the strictly controlled media environment with prevalent censorship, this propaganda worked effectively to the population. We believe this phenomenon further facilitate the unbalanced view among the Chinese population that [Huang \(2021\)](#) claim and show. [Huang \(2021\)](#) argues that the misperception has been increasing among the Chinese citizens in recent years regarding China's status in the world. This led to overconfidence about China's global influence and popularity and a sense of national superiority among citizens. In line with this claim, we believe that the global pandemic crisis offered a decisive momentum that exacerbated this imbalance in Chinese citizens' perception, particularly in their evaluation of democracy and democratic values in other

countries. However, we also observe that overall discussion on democracy has been invigorated due to the pandemic, which might lead potentially to a greater awareness of democratic values among the citizens in the future.

A clear empirical challenge and limit to our findings is the prevalent online censorship in China (King, Pan and Roberts 2013). What our analyses show might be explained by the degree of censorship. However, in line with Lu, Pan and Xu (2021), we find no clear evidence for large-scale censorship. Furthermore, we assume the censorship agencies in China have fewer incentives to censor negative posts about democracy and democratic values, which we use as the main outcome variable.

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Appendix

A Sample for Weibo posts by different sentiment category

A.1 Positive Weibo posts

We show some positive sentiment sample for Weibo posts in Table [A1](#).

A.2 Negative Weibo posts

We show some negative sentiment sample for Weibo posts in Table [A2](#).

A.3 Satiric Weibo posts

Table [A3](#) and Table [A4](#) are some satiric Weibo examples that predicted as ironic by our trained model but as positive by Baidu Senta model. This is also the reason why we manual label and divide the sentiment into three categories.

B Weekly Sentiment Percentage Trend

Figure A1: Daily Share of Negative Posts on Weibo

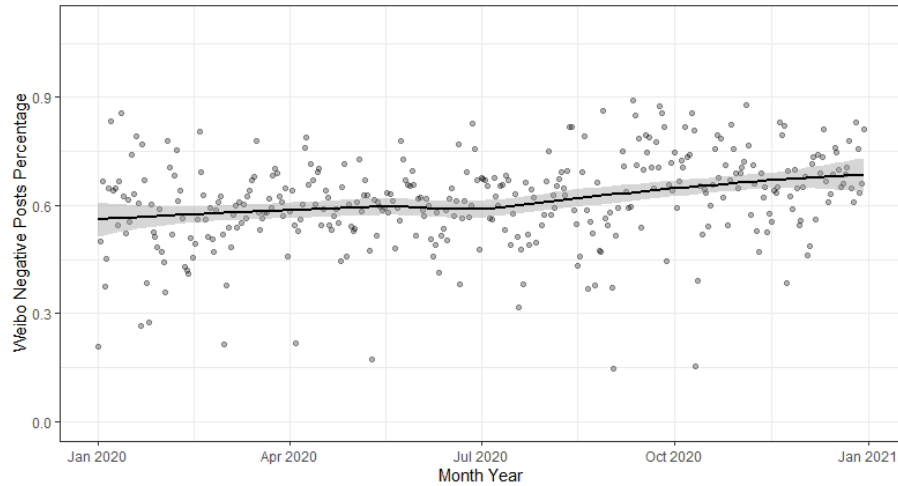


Table A1: Sample for Positive Weibo posts

Posts Content
<p>“什么是最大的人权，人命最重要就是最大的人权”！14 亿中国人的代表受表彰逆行者们与时间赛跑，与病魔较量，平凡而伟大！因为有了他们，让我们坚定了战胜疫情的信念。让我们向逆行者们致敬！雍容大度我心飞扬</p> <p>“What is the biggest human right? The human life is the biggest human right”! The representatives of 1.4 billion Chinese people are honored. Those people race against time and fight against the disease, ordinary and great! Thanks to them, we have strengthened our conviction to defeat the epidemic. Let us salute them! Grace and magnanimity make my heart soar</p>
<p>患难见真情有人对武汉封城指手画脚，有人对不准走亲戚说三道四，张嘴闭嘴人权，如果不是做出果断封城隔离的话，病毒感染早超过十万人了！所以，听党的指挥，听钟南山建议，听领导部署安排，把灾难减少都最低！宅在家，就是为国家做贡献。</p> <p>A friend in need is a friend indeed. Some people are pointing fingers at Wuhan lockdown, some people are frequently talking about human rights on not being allowed to visit relatives. If it were not for decisive lockdown, the virus infection would have exceeded 100, 000 people! So, listen to the party's command, listen to Zhong Nanshan's advice, listen to the leadership deployment arrangements, reduce the disaster are the lowest! Staying at home is doing something for the country.</p>
<p>这次疫情，中国人民有理由质疑医疗卫生系统的改革，有理由质疑改革开放特色路线的正确性。中华人民共和国是毛主席领导中国人民革命的成果，是人民当家做主的社会主国家，不是一个人的私产，也不是几个人的股份公司，谁也无权背离社会主义制度，把中国引向灾难和黑暗</p> <p>The Chinese people have every reason to question the reform of the health care system and the correctness of the reform and opening-up approach. The People's Republic of China is the result of the Chinese people's revolution led by Chairman Mao. It is a socialist country in which the people are the masters of their own affairs. It is not the private property of anyone person or a joint-stock company owned by a few. No one has the right to deviate from the socialist system and lead China into disaster and darkness</p>
<p>这次新冠病毒的发生和我国的应对，充分证明了三个真理。一是党的领导的重要性，二是社会主义制度的无比优越性，三是人类命运共同体的理论的正确性。没有任何一个政党有如此领导力和号召力。没有任何一种社会制度可以在一夜之间调动起如此强大的社会力量，一方有难八方支援。我们也从来没有如此切身感受</p> <p>The emergence of the novel Coronavirus and our country's response to it fully proves three truths. One is the importance of the leadership of the Party, the other is the incomparable superiority of the socialist system, and the third is the correctness of the theory of a community with a shared future for mankind. No other party has such leadership and appeal. No other social system can mobilize such powerful social forces overnight. And we've never felt it so personally</p>
<p>中国特色社会主义制度优势在疫情面前得以体现了</p> <p>The advantages of socialism with Chinese characteristics have been fully demonstrated in the face of the epidemic</p>
<p>我们国家很少强调人权二字，但是每每在危难时期，国家不曾放弃过任何一个老百姓可以活下来的机会。透过这次疫情，我们审视到自身的不足，同时我们再一次为生在中国而庆幸！中国会越来越好的</p> <p>Our country seldom emphasizes the word of human rights, but often in times of crisis, the country has never given up any chance that ordinary people can survive. Through this outbreak, we can see our own shortcomings, and once again we are glad to be in China! China will be better and better</p>

Table A2: Sample for Negative Weibo Sentiment

Posts Content
<p>希望借助这次疫情，那些人祸官员，通通拿下，希望中国人民觉醒，尤其是有点权力的人，为建立一个自由民主的社会做一点贡献，为别人着想也是为自己着想，病毒不会因为你是当官的就不传染给你，太自私的人不会有好结果。</p> <p>Hope to take advantage of this epidemic, those man-made disaster officials, all down. Hope the Chinese people wake up, especially those with some power, to contribute a little to building a free and democratic society, for the sake of others as well as themselves. The virus will not infect you just because you are an official. Selfish people will not have good results.</p>
<p>我真搞不懂，从黄冈那个一问三不知还理直气壮的女的，再到湖北红十字口罩分配不平等也能理直气壮的问凭什么的员工，你们真是坏透了</p> <p>I really don't understand, from the woman in Huanggang who not only knows nothing but also looks confidently, to the staff in Hubei Red Cross who can still reasonably ask why the distribution of masks is not equal, you are really very bad</p>
<p>资本主义的落后体制在应对疫情中暴露无遗，穷人的命只能沦为所谓“群体免疫”的小白鼠；官僚的推诿使得疫情在得到充分预警的情况下爆炸性蔓延；无数医务人员和病人死于所谓的“自由民主”；欧美国家存在严重的瞒报现象，“只要我不检测，人数就不会增加”；社会组织效率低下，没有调动产能的能力</p> <p>The backward system of capitalism has been exposed in the response to the epidemic, and the lives of the poor have been reduced to the guinea pigs of so-called "herd immunity". Bureaucratic prevarication allowed the epidemic to spread explosively with sufficient warning; Countless medical staff and patients died because of so-called "liberal democracy"; There are serious concealment phenomena in European and American countries, "as long as I do not detect, the number of people will not increase"; Social organizations are inefficient and unable to mobilize capacity</p>
<p>丹麦漫画家借疫情侮辱五星红旗，丹麦首相称“言论自由”。没想到，灾难也降临了。在大灾难面前，苍天绕过谁？一场看似与己无关的灾难，其实是全人类共同要面对的挑战，包括前段时间的澳洲大火。这个时候的嘲笑和暗讽不仅无知，也无底线。希望疫情快点结束，希望我们每个人都能记住教训，记住历史。</p> <p>Danish prime minister calls for "freedom of speech" after cartoonists insult the five-star red flag in the name of COVID-19. Unexpectedly, the disaster also came. Who does nature bypass in the face of catastrophe? A seemingly unrelated disaster is actually a common challenge faced by all mankind, including the recent fire in Australia. Ridicule and innuendo at this time are not only ignorant but also bottomless. I hope the epidemic will come to an end soon and that each of us can remember the lessons and the history.</p>
<p>新冠肺炎病毒在欧美如此严重底下，美国又出现全国性抗议游行，美国政府几乎不考虑人性化解决问题，只想靠武器镇压民众，不知道在双重的危机下，2020 年美国有多少生命为此付出代价！资本主义制度是冷血的制度。</p> <p>As the COVID-19 virus is so serious in Europe and the United States, there are national protest marches in the United States. The US government hardly considers humanization to solve the problem and only wants to use weapons to suppress people. I wonder how many lives will be paid for this in 2020 under the double crisis! The capitalist system is a cold-blooded system.</p>
<p>外面的月亮缺了还有人倔，在吹死亡率不是很高。。现在太多公知不提美国疫情和黑人抗议的事情，他们的灯塔倒了</p> <p>Outside the moon has been missing, there are people in stubborn, blowing mortality is not very high... Now too many public intellectual do not mention the epidemic and black protests in the United States, their beacon fell</p>

Table A3: Sample for Satiric Weibo posts (part 1/2)

Post content	Predicted by our model	Predicted by Baidu Senta
<p>囍哈哈哈哈哈哈病毒: 我回到美国一下飞机, 就震惊了, 这里的空气是如此乡甜, 不像在中国, 人们都带 5 个口罩, 恶劣的环境让我无法生存。这里充满了自由的气息, 热情奔放的人们, 感谢伟大的川普总统, 在我危难之际拯救了我, 我非常想报答他, 只有它最懂我。</p> <p>Ho ha ha ha ha virus: When I got back to the United States and stepped off the plane, I was shocked, the air here is so sweet, unlike in China, where people wear masks, the harsh environment made it no way for me to survive. It's full of freedom, passionate people, and thanks to the great President Trump, who saved me when I was in danger. I want to repay him very much, only he knows me best.</p>	satiric	positive
<p>病毒很自由, 也很民主</p> <p>The virus is free and democratic</p>	satiric	positive
<p>美国人权保护得不错, 每个人都有被感染和感染别人的权利</p> <p>The US has good protection of human rights, everyone has the right to be infected and infect others</p>	satiric	positive
<p>有民主护体, 一切都不用怕, 自由的空气不传播病毒</p> <p>There is democracy, nothing to fear, free air does not spread the virus</p>	satiric	positive
<p>民主自由可以战胜新冠, 加油勇敢的民主自由战士!</p> <p>Democracy and freedom can defeat COVID-19. Come on, brave democracy and freedom fighters!</p>	satiric	positive
<p>他好意思出来求助? 我们充分相信贵国的自由和民主, 以及香甜的空气可以抵御病毒的攻击, 我们也坚信在澳洲政府的各项举措落实后, 一定能够夺取最后的胜利! 下一次一定帮忙!</p> <p>He had the nerve to ask for help? We fully believe that your country's freedom and democracy, as well as the sweet air can resist the attack of the virus, we also firmly believe in the Australian government after the implementation of various measures, will be able to win the final victory! Do help next time!</p>	satiric	positive
<p>皿煮自由当然包括感染自由</p> <p>Minzhu (Democratic) freedom certainly includes freedom of infection</p>	satiric	positive
<p>西方国家真的自由民主, 不仅做到了公民自由, 而且做到了病毒自由。自由的国家有自由的病毒, 一点毛病哦没有</p> <p>Western countries are really free and democratic, not only achieving civil liberties, but also achieving viral freedom. A free country has a free virus. Nothing wrong with it</p>	satiric	positive

Table A4: Sample for Satiric Weibo posts (part 2/2)

Post content	Predicted by our model	Predicted by Baidu Senta
<p>多喝热水相信你的医疗实力哦，亲自由自在随风而去吧~这么自由，病毒应该追不上你们在丹麦，病毒也有拥有它自由的权利自由的国家应该让病毒也自由、怎么可以消灭它呢加油，多喝热水</p> <p>Drink plenty of hot water. Trust your medical power. Go with the wind. The virus can't catch up with you. In Denmark, the virus has its own right to freedom. A free country should let the virus be free. How can it be destroyed? Come on, drink more hot water</p>	satiric	positive
<p>相比 03 年，病毒和人的自由都显著降低哈哈，真实你看这图，相比于疾控，其实我们的评控体系才是今非昔比</p> <p>Compared to 2003, the freedom of both the virus and human beings is significantly lower. Haha. Actually, if you look at this picture, compared to the disease control, our evaluation and control system has changed</p>	satiric	positive
<p>好优美的中国话，戴口罩人权没了，不戴口罩人全没了。</p> <p>What a beautiful Chinese saying: the human right to wear masks is gone, and the people who don't wear masks are gone.</p>	satiric	positive
<p>自由民主的美国高居病毒感染人数全球首位，了不起的成就。</p> <p>The liberal and democratic United States has the highest number of virus infections in the world. No mean feat.</p>	satiric	positive
<p>说明目前疫苗研发并未真的成功，还是出门戴口罩最靠谱!“自由民主”美利坚，连病毒都是“自由”的!</p> <p>It shows that the current vaccine research and development is not really successful, or go out wearing a mask is the most reliable! "Free and democratic" America, even virus is "free"!</p>	satiric	positive
<p>疫情诚可怕，民主价更高，若为自由故，生命也可抛。</p> <p>The epidemic is truly terrible, the price of democracy is higher, life can be given up for freedom.</p>	satiric	positive
<p>生命诚可贵，自由价更高，若为肺炎故，口罩皆可抛</p> <p>Life is dear, freedom is dearer, masks can be given up for pneumonia.</p>	satiric	positive
<p>新冠: 我从未在世界上任何一个地方呼吸到如此自由的空气，我爱美国</p> <p>COVID-19: I have never breathed such freedom anywhere in the world. I love America</p>	satiric	positive

Figure A2: Weibo Weekly Sentiment Percentage Trend

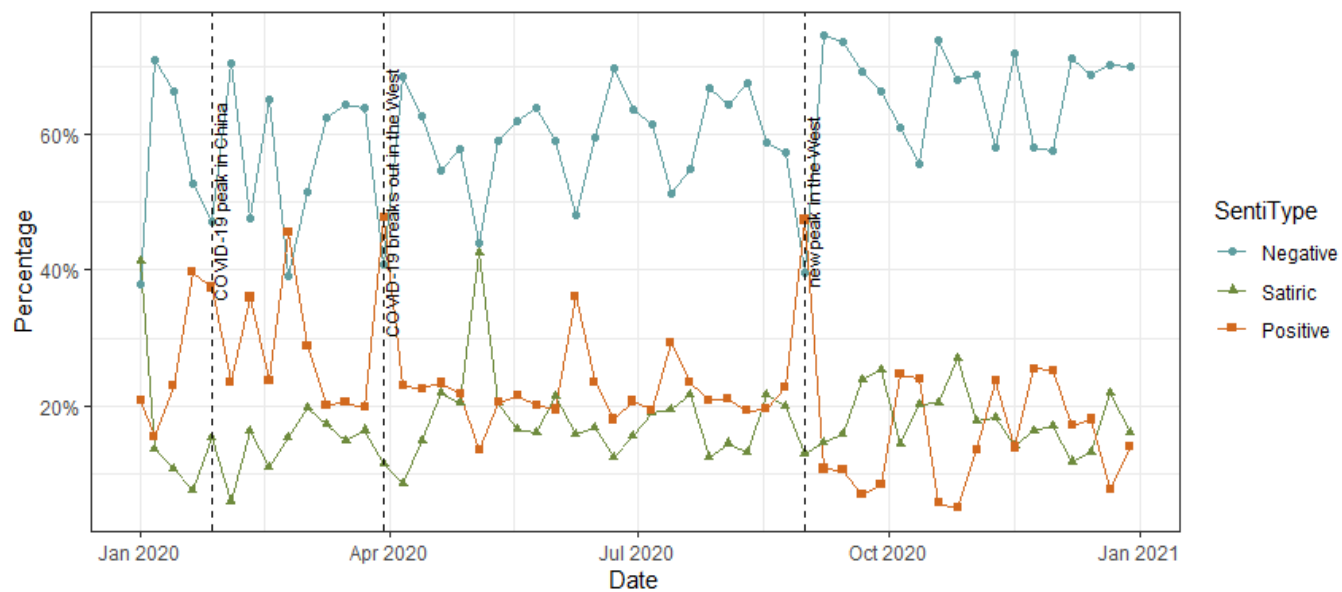
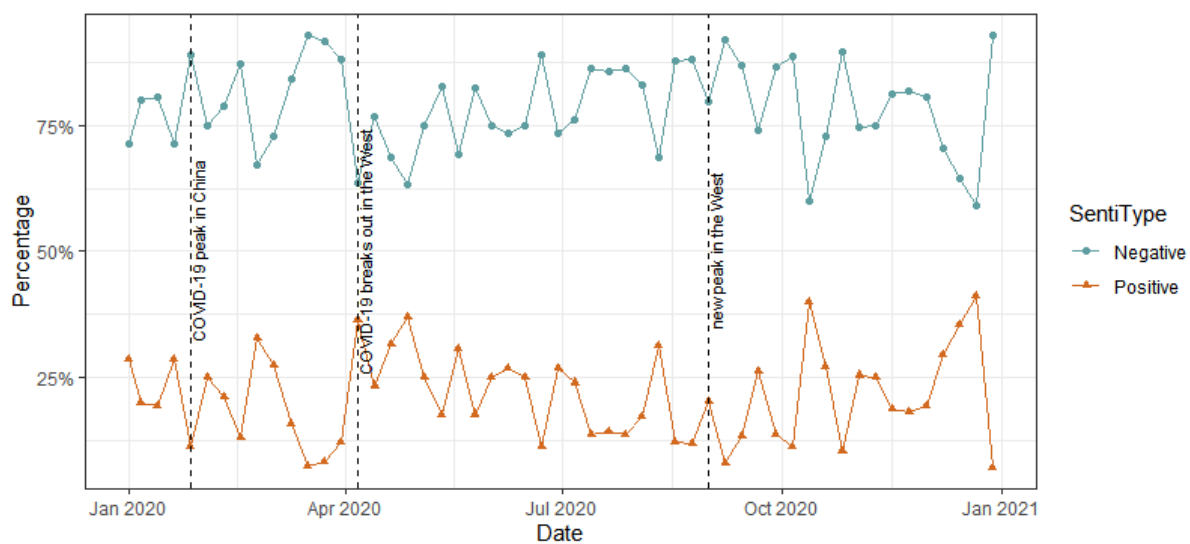


Figure A3: Zhihu Weekly Percentage Trend



C Weibo Official Accounts Selection

The Weibo dataset in our research is among 203, 719 distinct users. One may concern that the discussion is mainly contributed by official accounts users. To address this question, we exclude all posts that posted by official accounts, then run regression again. we found that the effect is still significant.

Our method to exclude all official accounts is as the following: any account's nick name contain 政府 or 新闻 or 共青团 or 报 or 网 or 官方 or 官博 or 官微 or 热线 or 服务 or 团委 or 网信 or 公安, we manually check all filtered accounts to see whether they are official accounts or not. After this step, we got 879 official accounts in total. Then we exclude all posts published by the 879 accounts

we got 333, 532 posts after removed the official accounts from 336, 323 posts.

D Robustness check between COVID-19 Cases and sentiment toward democracy

Further, we also examined the relationship between the absolute number of new COVID-19 cases with negative and sarcastic posts. We also checked the absolute number of new COVID-19 cases and new cases per million against negative posts only. Table A5, Table A6 and Table A7 are our robustness check results.

E Robustness check for Weibo amount trend

We crawl a placebo word bookstore (书店) on Weibo to check the weibo trend. The trend in Figure A4 shows that the weibo amount for bookstore is relatively stable in the overall year of 2020 and is obviously different with democracy-related weibo.

Table A5: Daily New Infection Cases and Sentiments Toward Democracy (new cases per million)

	<i>Dependent variable: Negative Sentiment</i>						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
China	−0.0165*** (0.0013)						−0.0172*** (0.0013)
United States		0.0004*** (0.00003)					0.0003*** (0.00003)
United Kingdom			0.0005*** (0.00002)				0.0002*** (0.00003)
India				0.0014*** (0.0003)			0.0016*** (0.0004)
Japan					0.0100*** (0.0005)		0.0066*** (0.0006)
France						0.0005*** (0.00001)	0.0004*** (0.00001)
Month FE	Y	Y	Y	Y	Y	Y	Y
Observations	331,434	331,434	322,416	323,333	331,434	330,099	322,416
R ²	0.0070	0.0072	0.0073	0.0060	0.0075	0.0159	0.0171
Adjusted R ²	0.0070	0.0071	0.0072	0.0060	0.0074	0.0159	0.0171

Notes. Logit model is used. Robust standard errors are in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A6: Daily New Infection Cases and Sentiments Toward Democracy (absolute new cases)

	<i>Dependent variable: Negative Sentiment</i>						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
China	−0.1147*** (0.0093)						−0.1198*** (0.0094)
United States		0.0133*** (0.0009)					0.0095*** (0.0010)
United Kingdom			0.0723*** (0.0036)				0.0263*** (0.0040)
India				0.0101*** (0.0024)			0.0119*** (0.0026)
Japan					0.7886*** (0.0434)		0.5193*** (0.0504)
France						0.0674*** (0.0013)	0.0660*** (0.0014)
Month FE	Y	Y	Y	Y	Y	Y	Y
Observations	331,434	331,434	322,416	323,333	331,434	330,099	322,416
R ²	0.0070	0.0072	0.0073	0.0060	0.0075	0.0159	0.0171
Adjusted R ²	0.0070	0.0071	0.0072	0.0060	0.0074	0.0159	0.0171

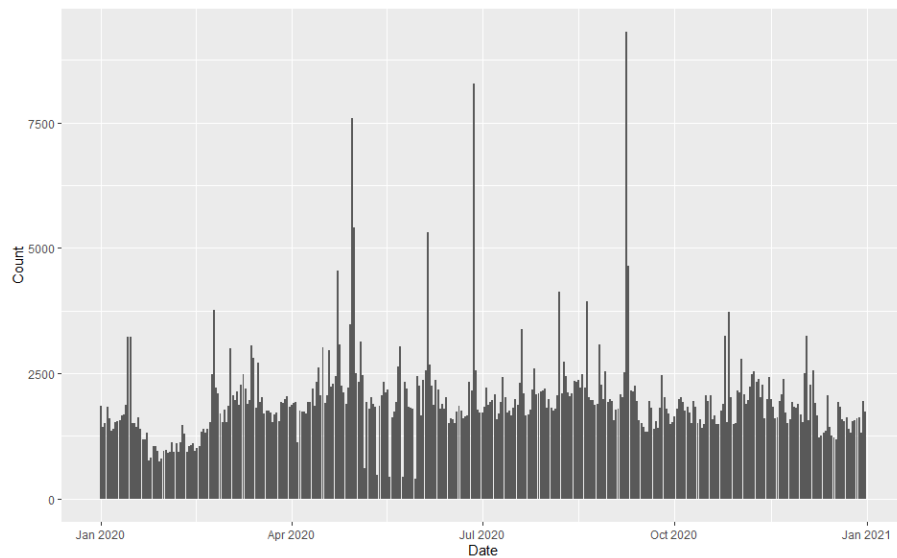
Notes. Logit model is used. Robust standard errors are in parenthesis. The unit of daily confirmed cases is 10,000. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A7: Daily New Infection Cases and Sentiments Toward Democracy (absolute new cases)

	<i>Dependent variable: Negative and Satiric Sentiment</i>						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
China	-0.0431*** (0.0086)						-0.0502*** (0.0087)
United States		0.0065*** (0.0007)					0.0049*** (0.0008)
United Kingdom			0.1052*** (0.0029)				0.0544*** (0.0033)
India				-0.0008 (0.0019)			0.0071*** (0.0021)
Japan					0.4851*** (0.0344)		0.2474*** (0.0397)
France						0.0844*** (0.0013)	0.0809*** (0.0013)
Month FE	Y	Y	Y	Y	Y	Y	Y
Observations	331,434	331,434	322,416	323,333	331,434	330,099	322,416
R ²	0.0196	0.0197	0.0202	0.0170	0.0200	0.0379	0.0367
Adjusted R ²	0.0196	0.0197	0.0202	0.0170	0.0200	0.0379	0.0366

Notes. Logit model is used. Robust standard errors are in parenthesis. The unit of daily confirmed cases is 10,000. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Figure A4: Weibo placebo trend for bookstore (书店)



F Robustness check for Weibo Sentiment Classification

We use Baidu Senta to do sentiment classification as robustness check. Although it is not good at selecting the satiric posts in our context, but still, it is good at classifying most of the posts and divide them into positive or negative ones. Table A8 shows the result which is similar to the result obtained by our trained model.

Table A8: Robustness check for Weibo using Baidu Senta to classify

	<i>Dependent variable: Negative Sentiment</i>	
	(1)	(2)
China related	−0.2723*** (0.0031)	−0.2751*** (0.0032)
Western related	0.0831*** (0.0028)	0.1323*** (0.0030)
Democracy 民主	0.5253*** (0.0103)	0.5277*** (0.0103)
Freedom 自由	−0.1664*** (0.0048)	−0.1890*** (0.0050)
Human Rights 人权	0.1517*** (0.0063)	0.1963*** (0.0066)
Min Zhu 皿煮	0.4506*** (0.0285)	0.4302*** (0.0285)
Month FE	N	Y
Observations	336, 323	336, 323
Log Likelihood	−170, 660.1000	−167, 133.5000
Akaike Inf. Crit.	341, 334.3000	334, 303.0000

Note: *p<0.1; **p<0.05; ***p<0.01

G Weibo posts coding manual

We add and label 3 columns for each Weibo post, the rule specification is showed in Table A9.

During the labelling process, if one RA is confused with same posts and not sure how to label them, we ask RA to mark ‘y’ in the ‘need recheck’ column, and later the research team discuss those posts together.

Table A9: Weibo posts coding rules

Column Name	Value	Rules
The post is a discussion or news	news or discussion	If the post is one’s opinion or discussion, you should mark it as ‘discussion’; If the post is news, you then mark it as ‘news’.
COVID-19 related	0 or 1	If the post is talking about COVID-19, you should mark it as 1, otherwise is 0.
Democracy related	0 or 1	If the post is talking about democracy, you should mark it as 1, otherwise is 0. While some of the news and discussion is about issues like elections or equality, in this study, it’s not the kind of discussion we want to have. We want to find out what the discussion is about democracy as a failure because of the COVID-19. Or, to put it another way, is the post discussing the failure of democracy?

H Weibo Model comparison

We compare our model with BERT. According to the result showed in Table A10, the overall performance for BiLSTM is better than BERT on our data, so we choose BiLSTM model.

Table A10: Weibo Model comparison

Model	Precision	Recall	F1-score
BiLSTM	0.8578	0.8580	0.8575
BERT	0.6695	0.9168	0.7738

I Democracy Dictionary

president, legislature, suffrage, election, political right, political rights, elected official, political party, majority rule, 选举, 选举权, 总统, 主席, 立法机关, 立法机构, 政治权利, 参政权, 权利, 当选官员, 候选人, 政党, 少数服从多数原则, 多数决定原则, freedom of speech, freedom of association, freedom, justice, rule of law, constitution, human right, checks and balances, judiciary, liberty, liberal, citizen journalist, 公民记者, 言论自由, 结社自由, 自由, 公平, 正义, 法治, 法的统治, 法制, 法律制度, 法律规则, 宪法, 宪政, 人权, 权力制衡, 制度制衡, 制衡,

ziyou, 司法机关, 司法机构, 司法部门, 司法制度, 法官, 司法部, 自由派, 社会正义, 自由主义, 自由主义者, civil society, petition, political participation, protest, social movement, 公民社会, 信访, 上访, 请愿, 政治参与, 抗议, 集会, 游行, 游行示威, 社会运动, 工人运动, 工会, labor union, 工会组织, equality, minority, diversity, gender, LGBT, LGBTQ, 同性恋, 平等, minority rights, 多样性, 多元, 少数人权利, 少数派权利, 性别, 性别平等, 左派, 真理, truth, 风景线, 皿煮, minzhu, 民主, democracy, 灯塔, 协商式民主, consultative democracy, 人民民主, 全过程民主, 全过程的民主, whole-process democracy, minben, 民本, 中国特色民主, 人民当家作主, 基层民主, 社会主义民主政治, 社会主义民主, 中国特色社会主义民主, 民主集中制, 善治, 善政, 增量民主, 党内民主, 高层民主, 社会民主, 协商民主, 中国特色, 中国特色公民社会, 社会主义公民社会, 决策科学化民主化, 中国民主化, 民主政治, 中国特色社会主义政治, 中国特色社会主义, 民主监督, 社会主义协商民主, 制度自信, 道路自信, 理论自信, 文化自信, 民主决策, 中国式民主, 中国特色社会主义制度, 中式民主, 中国模式, 中国民主制度, 中国民主政治, 为民选干, 权为民用, 情为民系, 利为民享, 民主恳谈会, 中国式民主政治, 以人民为中心, 健全民主制度, 拓宽民主渠道, 丰富民主形式, 民主中国, 人民统治, 法治民主, 新型民主模式

J COVID-19 Dictionary

疫情, 冠状, 确诊, 新冠, 钟南山, N95, 李文亮, 防护服, 疾控中心, 口罩, 管轶, CDC, 高福, 病例, 潜伏期, 病毒, 肺炎, 感染, 隔离, 防疫, 传染, 封城, 非典, 蝙蝠, 卫健委, 世卫, 重症, 李兰娟, 流行病, 华南海鲜市场, 人传人, 世界卫生组织, 消毒液, 洗手液, 危重, 张文宏, 穿山甲, WHO, 飞沫传播, 防护, 轻症, 无症状, 感染人数, COVID-19, 瑞德西韦, Coronavirus, Remdesivir, 健康码, 出入证, 境外输入, 疫苗, pandemic, 累计治愈, 卫生健康委员会, 双盲测试, 方舱医院, 复工, 护目镜, 核酸检测

K Location Dictionary

In the location dictionary, we have included common phrases that clearly refer to China, and we have included the names of all provinces and prefecture-level cities. Similarly, we also constructed a western dictionary.

China related dictionary: 中国, 我国, 我们国家, 李文亮, 钟南山, 习大大, 习主席, 共产党, 党中央, 中国特色, 我党, 湖北, 武汉, 北京, 我们的国家, 相比 03 年, 张文宏, 习近平, 社会主义, 制度自信, 江西, 我的祖国, 我们的党, 我的国, 人民民主, 我朝, 天朝, 民主集中制, 我们国, China, 李医生, 五家渠, 广元, 运城, 乌海, 六盘水, 张掖, 固原, 庆阳, 厦门, 阿拉尔, 太原, 普洱, 苏州, 高雄, 株洲, 许昌, 丽江, 嘉峪关, 福州, 邢台, 海西蒙古族藏族自治州, 随州, 果洛藏族自治州, 西双版纳傣族自治州, 毕节, 临汾, 十堰, 河南, 七台河, 开封, 资阳, 青海, 潮州, 西藏, 嘉义, 淮安, 鹤岗, 兰州, 漯河, 新竹县, 三明, 抚州, 辽宁, 台湾, 宜春, 昌都, 陵水黎族自治县, 遵义, 台州, 神农架林区, 南平, 娄底, 济源, 深圳, 芜湖, 图木舒克, 海北藏族自治州, 重庆, 温州, 五指山, 阿勒泰地区, 贵港, 铜川, 长春, 池州, 文山壮族苗族自治州, 南通, 安康, 林芝, 陇南, 咸宁, 平顶山, 临夏回族自治州, 定安县, 南昌, 保定, 苗栗县, 绥化, 铜陵, 阿坝藏族羌族自治州, 大连, 抚顺, 贺州, 云林县, 吕梁, 潍坊, 鄂尔多斯, 蚌埠, 赣州, 梅州, 泉州, 咸阳, 菏泽, 可克达拉, 中卫, 桂林, 秦皇岛, 内蒙古, 泸州, 湖南, 晋中, 枣庄, 广东, 新余, 晋城, 茂名, 盘锦, 嘉义县, 乌兰察布, 杭州, 昆明, 北屯, 滁州, 大理白族自治州, 梧州, 阳泉, 漳州, 银川, 驻马店, 东方, 琼海, 江苏, 玉林, 浙江, 吐鲁番, 巴彦淖尔, 葫芦岛, 柳州, 淮南, 阿克苏地区, 衡水, 巴音郭楞蒙古自治州, 澎湖县, 天水, 惠州, 伊犁哈萨克自治州, 四平, 山南, 渭南, 湘潭, 花莲县, 黔东南布依族苗族自治州, 湘西土家族苗族自治州, 延安, 自贡, 双鸭山, 玉树藏族自治州, 连云港, 雅安, 聊城, 朔州, 商丘, 三沙, 上海, 大兴安岭地区, 白城, 丽水, 盐城, 澳门, 平凉, 潜江, 和田地区, 玉溪, 南宁, 屯昌县, 宣城, 唐山, 天津, 哈密, 铁门关, 揭阳, 广州, 陕西, 昆玉, 常德, 临沧, 昌吉回族自治州, 宁波, 牡丹江, 益阳, 彰化县, 商洛, 丹东, 佛山, 红河哈尼族彝族自治州, 海口, 吴忠, 临沂, 德宏傣族景颇族自治州, 宜昌, 湖州, 儋州, 铁岭, 莆田, 包头, 焦作, 新乡, 甘南藏族自治州, 镇江, 张家口, 江门, 龙岩, 石家庄, 洛阳, 喀什地区, 日照, 黔东南苗族侗族自治州, 西宁, 赤峰, 金昌, 松原, 广安, 榆林, 三门峡, 舟山, 鸡西, 德州, 云南, 河北, 邯郸, 达州, 延边朝鲜族自治州, 济宁, 文昌, 内江, 鹰潭, 新北, 乐山, 桃园, 德阳, 成都, 泰州, 湛江, 珠海, 武威, 怀化, 新竹, 常州, 铜仁, 汕头, 郴州, 黑龙江, 扬州, 西安, 南阳, 鄂州, 南投县, 长治, 伊春, 黑河, 黄山, 白银, 周口, 克孜勒苏柯尔克孜自治州, 呼伦贝尔, 安阳, 营口, 汕尾, 天门, 遂宁, 酒泉, 大庆, 哈尔滨, 辽阳, 绍兴, 大同, 无锡, 台东县, 荆州, 防城港, 仙桃, 克拉玛依, 佳木斯, 拉萨, 保山, 六安, 海南, 呼和浩特, 怒江傈僳族自治州, 阿拉善盟, 乌鲁木齐, 石嘴山,

濮阳, 南京, 东营, 襄阳, 金华, 海东, 双河, 屏东县, 阜新, 安庆, 白山, 福建, 宿州, 河池, 威海, 北海, 吉林, 定西, 凉山彝族自治州, 甘孜藏族自治州, 海南藏族自治州, 通化, 辽源, 宿迁, 迪庆藏族自治州, 四川, 百色, 钦州, 宁夏, 保亭黎族苗族自治县, 恩施土家族苗族自治州, 宁德, 亳州, 那曲, 滨州, 孝感, 青岛, 台南, 荆门, 清远, 汉中, 阜阳, 泰安, 临高县, 宝鸡, 黄石, 锦州, 淄博, 沧州, 塔城地区, 锡林郭勒盟, 曲靖, 三亚, 上饶, 邵阳, 昌江黎族自治县, 山西, 韶关, 黔南布依族苗族自治州, 基隆, 永州, 通辽, 南充, 合肥, 烟台, 山东, 崇左, 衡阳, 阳江, 贵阳, 郑州, 景德镇, 鹤壁, 贵州, 云浮, 安徽, 济南, 白沙黎族自治县, 乐东黎族自治县, 鞍山, 楚雄彝族自治州, 香港, 吉安, 来宾, 九江, 嘉兴, 张家界, 肇庆, 廊坊, 淮北, 马鞍山, 东莞, 黄冈, 齐齐哈尔, 广西, 博尔塔拉蒙古自治州, 岳阳, 萍乡, 巴中, 日喀则, 台中, 昭通, 安顺, 新疆, 攀枝花, 河源, 阿里地区, 宜宾, 眉山, 宜兰县, 兴安盟, 中山, 信阳, 台北, 衢州, 本溪, 甘肃, 绵阳, 沈阳, 徐州, 承德, 琼中黎族苗族自治县, 长沙, 忻州, 万宁, 石河子, 澄迈县, 朝阳, 黄南藏族自治州

Western related dictionary: 西方, 西式, 欧洲, 东欧, 北欧, 东南亚, 非洲, 阿尔巴尼亚, 阿尔及利亚, 安哥拉, 安圭拉, 阿根廷, 亚美尼亚, 阿路巴, 澳大利亚, 奥地利, 亚塞拜然, 巴哈马, 巴林, 孟加拉, 巴贝多, 白俄罗斯, 比利时, 贝里斯, 贝南, 百慕达, 不丹, 玻利维亚, 波希尼亚及赫塞哥维那, 波札那, 巴西, 文莱, 保加利亚, 有吉纳法索, 蒲隆地, 柬埔寨, 喀麦隆, 加拿大, 维德角岛, 开曼群岛, 中非共和国, 查德, 智利, 哥伦比亚, 刚果, 科克群岛, 哥斯达黎加, 科特迪瓦, 克罗埃西亚, 塞浦路斯, 捷克, 卢森堡, 澳门, 马其顿, 马达加斯加, 马拉威, 马来西亚, 马尔地夫, 马利, 马耳他, 模里西斯, 毛里塔尼亚, 墨西哥, 摩尔多瓦, 蒙古, 摩洛哥, 缅甸, 纳米比亚, 诺鲁, 尼泊尔, 荷兰, 新喀里多尼亚, 纽西兰, 尼日, 奈及利亚, 挪威, 阿曼, 巴基斯坦, 巴拿马, 巴布亚纽几内亚, 巴拉圭, 秘鲁, 菲律宾, 波兰, 葡萄牙, 卡达, 罗马尼亚, 俄罗斯, 卢安达, 圣克里斯多福及尼维斯, 圣露西亚, 圣文森及格瑞那丁, 圣多美及普林西比, 沙特阿拉伯, 塞内加尔, 塞席尔, 狮子山, 新加坡, 斯洛伐克, 斯洛维尼亚, 索罗门群岛, 索马利亚, 南非, 西班牙, 斯里兰卡, 苏丹, 苏利南, 史瓦济兰, 瑞典, 瑞士, 叙利亚, 坦尚尼亚, 泰国, 多哥, 千里达及托贝哥, 突尼西亚, 土耳其, 乌干达, 乌克兰, 阿拉伯联合大公国, 美国, 乌拉圭, 委内瑞拉, 越南, 西萨摩亚, 也门, 南斯拉夫, 赞比亚, 津巴布韦, 丹麦, 多米尼加, 多米尼克, 厄瓜多尔, 埃及, 萨尔瓦多, 厄利垂亚, 爱沙尼亚, 衣索匹亚, 斐济, 芬兰, 法属玻里尼西亚, 法国, 加彭, 乔治亚, 德国, 迦纳,

直布罗陀, 英国, 希腊, 格瑞那达, 危地马拉, 几内亚, 盖亚那, 海地, 宏都拉斯, 香港, 匈牙利, 冰岛, 印度, 印尼, 伊朗, 伊拉克, 爱尔兰, 以色列, 意大利, 牙买加, 日本, 约旦, 肯亚, 韩国, 科威特, 寮国, 拉脱维亚, 赖索托, 乌兰巴托, 平壤, 汉城, 东京, 万象, 河内, 金边, 仰光, 曼谷, 吉隆坡, 斯里巴加湾市, 马尼拉, 雅加达, 帝力, 加德满都, 廷布, 达卡, 新德里, 科伦坡, 马累, 伊斯兰堡, 喀布尔, 德黑兰, 科威特城, 利雅得, 麦纳麦, 多哈, 阿布扎比, 马斯喀特, 萨那, 巴格达, 大马士革, 贝鲁特, 安曼, 耶路撒冷, 特拉维, 尼科西亚, 安卡拉, 塔什干, 阿斯塔纳, 比什凯克, 杜尚别, 埃里温, 阿什哈巴德, 巴库, 第比利斯, 雷克雅未克, 曹斯哈恩, 哥本哈根, 奥斯陆, 斯底哥尔摩, 赫尔辛基, 莫斯科, 基辅, 明斯克, 基希讷乌, 维尔纽斯, 塔林, 里加, 华沙, 布拉格, 布达佩斯, 柏林, 维也纳, 瓦杜兹, 伯尔尼, 阿姆斯特丹, 布鲁塞尔, 伦敦, 都柏林, 巴黎, 摩纳哥城, 安道尔城, 马德里, 里斯本, 罗马, 梵蒂冈城, 圣马力诺, 瓦莱塔, 萨格勒布, 布拉迪斯拉发, 卢布尔雅那, 斯科普里, 贝尔格莱德, 普里什蒂纳, 波德戈里察, 布加勒斯特, 索非亚, 地拉那, 雅典, 开罗, 的黎波里, 突尼斯, 阿尔及尔, 拉巴特, 阿尤恩, 努瓦克肖特, 达喀尔, 班珠尔, 巴马科, 瓦加杜古, 普拉亚, 比绍, 科纳克里, 弗里敦, 蒙罗维亚, 亚穆苏克罗, 阿克拉, 洛美, 波多诺伏, 尼亚美, 阿布贾, 雅温得, 马拉博, 恩贾梅纳, 班吉, 喀土穆, 朱巴, 亚的斯亚贝巴, 吉布提市, 摩加迪沙, 内罗毕, 坎帕拉, 达累斯萨拉姆, 基加利, 布琼布拉, 金沙萨, 布拉柴维尔, 利伯维尔, 圣多美, 罗安达, 卢萨卡, 利隆圭, 马普托, 莫罗尼, 塔那那利佛, 维多利亚, 路易港, 圣但尼, 哈拉雷, 哈博罗内, 温得和克, 比勒陀利亚, 姆巴巴纳, 马塞卢, 詹姆斯敦、乔治敦等, 阿斯马拉, 堪培拉, 惠灵顿, 莫尔斯比港, 霍尼亚拉, 维拉港, 努美阿, 苏瓦, 塔拉瓦, 亚伦区, 帕利基尔, 马朱罗, 塞班岛, 阿加尼亚, 富纳富提, 马塔乌图, 阿皮亚, 帕果帕果, 阿洛菲, 金斯敦, 科罗尔, 法考福, 阿瓦鲁阿, 努库阿洛法, 帕皮提, 亚当斯敦, 戈特霍布 (努克), 渥太华, 圣皮埃尔市, 华盛顿, 哈密尔顿, 墨西哥城, 危地马拉城, 贝尔莫潘, 圣萨尔瓦多, 特古西加尔巴, 马那瓜, 圣何塞, 巴拿马城, 拿骚, 科伯恩城, 哈瓦那, 乔治敦, 太子港, 圣多明各, 圣胡安, 夏洛特·阿马里, 罗德城, 巴斯特尔, 瓦利, 圣约翰, 普利茅斯, 罗索, 法兰西堡, 卡斯特里, 布里奇顿, 圣乔治, 西班牙港, 威廉斯塔德, 奥拉涅斯塔德, 圣菲波哥大, 加拉加斯, 帕拉马里博, 卡宴, 基多, 利马, 巴西利亚, 苏克雷, 圣地亚哥, 布宜诺斯艾利斯, 亚松森, 蒙得维的亚, 斯坦利港, 灯塔国, 米国, 特朗普, 川普, 蓬佩奥, 美帝, 美利坚, 美疾控中心, 福奇, 拜登, 老美, 全美, 美民众, 参议院, 布什, 纽约, 芝加哥, 共和党, 民主党, 加州, 川宝, 川建国, 魅国, Trump, 白宫, America, 北美, 华尔

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