

A Comparative Study of China's Foreign Ministry Spokesperson's Use of Weibo and Twitter

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Abstract—Governments around the world are embracing social networks to promote their agendas, and China is no exception. Although Twitter is blocked in China, many diplomats own Twitter accounts and actively post content. Particularly, Zhao Lijian (China's Ministry of Foreign Affairs Spokesperson) is prolific on Twitter as well as its Chinese counterpart, Weibo. This paper examines the entities mentioned in and the sentiment of Zhao's posts, delivered or not delivered to people within China, to study the similarity and differences between his use of Weibo and Twitter. This paper also compares the users' engagement with Zhao on both platforms, exploring the possible factors influencing users' engagement on both platforms.

Index Terms—public diplomacy, social network, named entity recognition, sentiment analysis, China

I. INTRODUCTION

Driven by the fact that people use social media for news access and political discourse, governments around the world attempt to engage with the domestic audience and the international audience through online social media. The prevalence of social media has made it possible for both state and non-state actors to reach a larger audience at a smaller expense. The study has found that almost all members of parliaments have Twitter accounts in 32 European countries of the European Union, the European Free Trade Association, and the United Kingdom [1]. In the United States, all Senators and almost all Representatives adopt Twitter accounts as well [2]. Although Twitter is blocked in China, the number of China's diplomatic Twitter accounts increased to 80 as of January 17, 2020, from 13 as of October 20, 2018 [3].

China's diplomats employ Twitter as an arena for public diplomacy. The presence of China's diplomatic Twitter accounts aligns with the goal to "tell China stories well" [4], set by China's president Xi Jinping back in 2013 [3]. Public diplomacy is a term first coined in 1965 by Edmund Gullion [5], it means a direct communication initiated by one government to non-state actors to influence their government. A government can use public diplomacy to build a relationship with non-state actors and their government, promote a positive image and perception of itself and enhance understanding from the outside, thus creating a favorable environment to implement its diplomatic policies [3], [6]. The prevalence of social media provided the opportunity for diplomats to engage

with more non-state actors from outside than they could in traditional channels like in-person activities. Social media, with a core of interactivity [7], not only provides an additional channel for public diplomacy but also makes what was once a predominantly one-way communication more interactive [8]. Domestically, China's government has been found to use Weibo to influence public opinion by asking government employees to post pro-state content on the platform [9].

People can make better decisions with sufficient information about their government among other things [10]. Although Twitter is blocked along with other international social networks and news outlets within China, China's diplomats are active on Twitter. A study looking into China's behavior on both Weibo and Twitter can provide more information to improve people's understanding of the government. This paper studies China's government's behavior on both Twitter and Weibo with a focus on Zhao Lijian, who is prolific on both platforms. We aim to answer the following research questions:

- RQ1: What topics characterize Zhao's posts on Twitter and Weibo?
- RQ2: What sentiments characterize Zhao's posts on Twitter and Weibo?
- RQ3: What are the factors affecting people's engagement with Zhao's posts on Twitter and Weibo?

II. RELATED WORK

Existing research regarding China's public diplomacy on Twitter captures its characteristics of network structure and content [3], [6], [8], [11]. Although some Chinese missions communicate and interact with foreign audiences and counterparts while some do not, they share a common primary information source - the state-owned media outlets, indicating a hierarchical structure of the communication network within the Chinese diplomatic active Twitter accounts. The top three topics most frequently tweeted about include China-foreign cooperation in economic and social aspects, political relationship with foreign countries, and promotion of Chinese culture and society [8], most of which are moderate and trying to create a friendly international environment for China. During the US-China Trade War, even though China's related posts on Weibo generally show a tough attitude, China's Twitter posts show a relatively softer gesture [3]. However, there is one exception.

Zhao Lijian, the current spokesperson of the Chinese Ministry of Foreign Affairs and previous diplomat affiliated with the Chinese embassy in Pakistan, actively tweets content with characteristics of polarization and strong emotion [6]. Zhao Lijian tweets in a manner not aligned with the traditional purposes of public diplomacy, which generally tend towards boosting mutual understanding, promoting nation branding, and creating a friendly international environment for foreign policies [12]. Zhao Lijian’s proactive tweeting style is claimed by some research to be integral to Chinese diplomacy’s shift from forbearance, and softness to proactivity and assertiveness [11].

Regarding Weibo, scholars have revealed various strategies and methods the government has utilized to influence public opinion. Evidence has been found that the Chinese government asks government employees to post pro-government content on the platform, contrary to previous claims that China recruits people with money to post pro-government content [9]. One case study finds the Beijing Police Department (BPD) uses Weibo to disseminate *positive energy*, a phrase referring to healthy, active emotions and attitudes, which is consistent with the Xi administration’s ideological agenda [13]. On Weibo, scholars have found little evidence that the Chinese government uses bots to disseminate information or to fake popularity [13], [14].

In terms of comparative study, Huang and Wang [3] find that China’s diplomatic posts on both Twitter and Weibo both use information sources from major Chinese state-owned news outlets, exhibiting a hierarchical structure. Posts on Weibo tend to manifest a harder attitude on diplomatic issues compared to Twitter. Due to the fact many diplomats do not have Weibo accounts, Huang and Wang [3] collect data from 80 Twitter accounts and only 2 Weibo accounts.

These comparative studies help people better understand the government’s behavior, especially considering that Twitter is blocked along with other social networks in China. We examine the differences and similarities in the content and engagement of the posts of the spokesperson for China’s Ministry of Foreign Affairs. We conduct this analysis with the help of NLP tools, including the models pre-trained on named entity recognition tasks and sentiment analysis tasks in both Chinese and English [15]–[17], providing more information to better understand the government’s behavior. Additionally, we provide some quantitative evidence of previous qualitative findings in this area.

III. DATASET

We collected data from two periods to check whether the findings are robust across time. We collected 1) 515 posts on Weibo and 3233 posts on Twitter from February 20, 2021 to September 17, 2021, and 2) 2310 posts on Weibo and 3239 posts on Twitter from November 2, 2021 to May 22, 2022. In the rest of the paper, we use time period 1 and time period 2 to refer to February 20, 2021 to September 17, 2021, and November 2, 2021 to May 22, 2022, for convenience. We keep the affordances of both platforms in mind while

conducting this analysis - Weibo allows users to comment when they repost other people’s posts while Twitter does not allow long posts. The Twitter API allows collecting a user’s recent Tweets, Retweets, replies, and Quote Tweets up to around 3200. Our dataset is summarized in Table I.

To analyze Zhao Lijian’s Weibo content, we use his comments when he reposts and his original Weibo posts. A quick look shows that more than 70% of Zhao Lijian’s timeline posts are just Retweets. Since retweets contain no original input from Zhao and we focus our analysis on the content posted by Zhao Lijian. Hence for our Twitter analysis, we use the text of his Tweets, replies, and Quote Tweets. Unless explicitly stated, “posts” refers to the original text written by Zhao Lijian.

TABLE I
SUMMARY OF THE DATASET

Platform	# of Time Period 1	# of Time Period 2
Weibo	515	2308
Twitter	3233	3239
Weibo (w/ original text)	515	2308
Twitter (w/ original text)	863	922

IV. RESEARCH QUESTIONS

RQ1: What topics characterize Zhao’s posts on Twitter and Weibo? Do they exhibit differences across the two platforms?

Methods. We use Named Entity Recognition (NER) to see what objects Zhao Lijian is frequently talking about on social media. We used NER instead of topic modeling to have a more general idea of the topics Zhao constantly post about regardless of the specific events. We use pre-trained models from PaddleNLP [15] and Flair [16] to process Chinese text and English text respectively.

Results. We list below the top 10 entities mentioned by Zhao Lijian Below.

The top 10 entities mentioned by Zhao Lijian February 20, 2021 to September 17, 2021 include:

- **Weibo:** (1) *China*, (2) *the United States*, (3) *The Ministry of Foreign Affairs*, (4) *Zhao Lijian*, (5) *Xinjiang*, (6) *Covid*, (7) *Wang Yi*, (8) *Japan*, (9) *Afghanistan*, (10) *the World Health Organization*.
- **Twitter:** (1) *China*, (2) *the United States*, (3) *Xinjiang*, (4) *Pakistan*, (5) *Afghanistan*, (6) *Wang Yi*, (7) *Japan*, (8) *Covid*, (9) *UK*, (10) *Taiwan*.

Top 10 entities mentioned by Zhao Lijian from November 2, 2021 to May 22, 2022.

- **Weibo:** (1) *China*, (2) *the United States*, (3) *The Ministry of Foreign Affairs*, (4) *Wang Yi*, (5) *Zhao Lijian*, (6) *Covid*, (7) *Ukraine*, (8) *Beijing*, (9) *Xinjiang*, (10) *the Winter Olympic Games*.
- **Twitter:** (1) *China*, (2) *the United States*, (3) *Xinjiang*, (4) *Beijing*, (5) *the Winter Olympic Games*, (6) *Ukraine*, (7) *Afghanistan*, (8) *Lithuania*, (9) *Pakistan*, (10) *Wang Yi*.

Zhao Lijian shows different priorities for certain topics on Weibo and Twitter. While the United States is the most frequently mentioned entity on both platforms, the Xinjiang issue is given higher priority on Twitter than on Weibo. In both time periods of observation, Xinjiang remains the third most frequent entity mentioned by Zhao Lijian, while on Weibo, it is the fifth and ninth most frequently mentioned entity respectively in the two time periods. In the second time period, during which the 2022 Beijing Winter Olympic Games took place and the Ukraine War broke out, on Weibo, Xinjiang is mentioned less than both of these two events, while on Twitter, it keeps the third place.

Zhao Lijian acts more like a broadcaster on Weibo. On Weibo, his comments compose the headlines of reposted content along with his opinion on the matter. He also reposts a lot from the Spokesperson’s Office account, whose posts usually start with “*Zhao Lijian responded to ...*” or “*Zhao Lijian said ...*”. This explains why Zhao Lijian himself is a frequently mentioned entity. In contrast, Zhao Lijian comments more directly on Twitter rather than just repeating the headline of the quoted Tweets and replied Tweets.

RQ2: What sentiments characterize Zhao’s posts on Twitter and Weibo? Do they exhibit differences across the two platforms?

Methods. We use pre-trained models which have been fine-tuned on sentiment tasks provided by Cardiff NLP [17] and PaddleNLP [15] to classify the sentiment on English text and Chinese text respectively. We manually sampled and annotated the results and found both models yield accuracy above 0.8.

Results. Zhao Lijian posts more negative text on both platforms. In time period 1, over half of the posts are negative on both platforms (62.52% and 50.52% on Weibo and Twitter respectively). In time period 2, the ratio of negative posts drops to 40.42% and 30.8%. The numbers are shown in Table II. Such a high ratio of negative posts on Twitter resonates with previous findings that Zhao Lijian posts in an aggressive way inconsistent with the traditional goal of public diplomacy to create a favorable international environment for diplomatic policies.

The ratio of negative posts on Weibo compared to Twitter in both periods. Zhao Lijian is even more aggressive on Weibo, criticizing Western Countries - especially the United States. There are claims pertaining to how Chinese citizens welcome the so-called “Wolf Warrior” diplomacy, so Zhao may need to behave more aggressively to align with the public opinion to consolidate the government’s legitimacy in the domestic platform [18].

Zhao Lijian has distinct ways of posting about *friends* and *enemies*. With keywords search, we looked into posts regarding the United States and Pakistan and found extremely high ratios of negative sentiment and positive sentiment respectively. The numbers of time period 2 are shown in Table III. The results of time period 1 are similar. Zhao Lijian constantly criticizes the United States for its intervention in China’s internal affairs while showing friendship and mutual support between China and Pakistan. The negative posts regarding

Pakistan are mainly condemning terrorism within the country. This finding is in keeping with previous research by Guo [6]. Our sentiment analysis provides more evidence for this claim, showing that this pattern is consistent on both platforms.

TABLE II
RATIO OF NEGATIVE AND NON-NEGATIVE POSTS ON WEIBO AND TWITTER

Platform	Time Period 1		Time Period 2	
	Non-negative	Negative	Non-negative	Negative
Weibo	37.48%	62.52%	59.58%	40.42%
Twitter	49.48%	50.52%	69.2%	30.8%

TABLE III
RATIO OF NEGATIVE AND NON-NEGATIVE PAKISTAN AND U.S. RELATED POSTS ON WEIBO AND TWITTER (TIME PERIOD 2)

Platform		Count	Non-negative	Negative
Weibo	Pakistan	85	78.82%	21.18%
	U.S.	631	20.5%	79.46%
Twitter	Pakistan	20	85%	15%
	U.S.	243	34.98%	65.02%

RQ3: What are the factors affecting people’s engagement with Zhao’s posts on Twitter and Weibo? Do they exhibit differences across the two platforms? Considering that Zhao Lijian posts frequently about the United States in a negative tone, we explore further whether these posts - charged with negative emotions and posts related to the United States - invoke more engagement.

Methods. On Weibo, we calculated the average number of favorites, forwards, and comments of negative and non-negative posts. On Twitter, we calculated the average number of retweets and favorites.

Results. On Weibo, we find users engage more with non-U.S. content and non-negative content. The metrics on Weibo are shown in Table IV and Table V. In time period 1, 7 out of 10 posts with the most favorites are positive. In time period 2, 9 out of 10 posts with the most favorites are positive. However, there is no consistent pattern across the two time periods on Twitter. Notably, on Weibo, in both time periods, the top 1 posts with the most favorites are positive and contain pictures of beautiful natural scenes. While on Twitter, one criticizes the West and the other criticizes Japan’s handling of the wastewater from the Fukushima nuclear disaster.

TABLE IV
ENGAGEMENT ON WEIBO IN TIME PERIOD 1

Metric	Non-negative	Negative	Non-U.S.	U.S.
favorite	9053	5152	7558	5174
forward	524	315	427	343
comment	509	313	444	298

TABLE V
ENGAGEMENT ON WEIBO IN TIME PERIOD 2

Metric	Non-negative	Negative	Non-U.S.	U.S.
favorite	4146	2600	3944	2397
forward	322	183	297	183
comment	229	198	227	189

V. CONCLUSION AND FUTURE WORK

In this paper, we examined Zhao Lijian's use of Weibo and Twitter with a focus on his content, with the help of pre-trained NLP models. We find similarities and differences in the content posted by Zhao Lijian on Weibo and Twitter. Xinjiang is given higher priority on Twitter than on Weibo while the United States is the biggest target on both platforms. We also find that Zhao Lijian posts a larger ratio of negative content on Weibo than on Twitter. However, on both platforms, he constantly posts negatively about the United States and positively about Pakistan. At last, we find that Weibo users engage more with non-U.S. content and positive content while there is no clear pattern of engagement on Twitter.

Future work includes analyzing the engagement in a more detailed way. We find that public opinion in China does not necessarily align with government opinion. We noticed the opposition comments under Zhao Lijian's posts on Weibo. However, since these comments may contain a lot of sarcasm and other rhetoric methods and are in Chinese, no pre-trained models can easily classify them. Our future efforts would aim to build reliable models to classify opinions of the comments and reveal public opinion.

ACKNOWLEDGMENT

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