

HOW DOES THE CHINESE GOVERNMENT USE SOCIAL MEDIA  
TO REACT TO SOCIAL CRISIS  
A CONTENT ANALYSIS

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DECEMBER 2014

# **HOW DOES THE CHINESE GOVERNMENT USE SOCIAL MEDIA TO REACT TO SOCIAL CRISIS**

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## **Abstract**

In order to examine the Chinese government's strategies and stances reflected on its social media account during a social crisis, this research uses a content analysis of 391 Weibo posts from four official government accounts. The researcher uses one-way ANOVA, Chi-square and independent-sample *t* test to compare the strategies and stance reflected in different phrases and between two types of government accounts.

The results reveal that the Chinese government tended to adopt an accommodative stance towards social crisis. Among four government accounts, the posts from government-controlled media accounts showed a less accommodative stance. Moreover, posts from government-controlled media accounts are more likely to try explaining the cause of crisis, while the posts government-agency accounts are making promises for the future like establishing policies to secure a better environment and clean the air. Finally discussion focuses on the speculations that might lead to the results.

## **Research Component**

It is hard to image that only 10 to 15 years ago, Chinese people only got information from traditional media like newspapers, TV, magazines and the radio. Since China has a highly centralized government system, the traditional media was mainly controlled by the national or state government. In my childhood memories, I only knew the national station CCTV (China Central Television) or SCTV (Sichuan Television), which was a local station. However, everything has changed.

As the internet and social media have grown, China has become the country with the most internet users. It not only changes the way people receive information, but also offers them an opportunity to actively seek for or even post information. Since 2008, social media has been booming in China. Millions of people started to use blogs, Weibo (Chinese Twitter) and Renren (Chinese Facebook).

Since majority of traditional media are still under the censorship of the Chinese government, social media have been a new platform for Chinese people to criticize government activities. As this situation goes further, the Chinese government has realized the power of social media. In recent years, hundreds of accounts have been created by the government agencies to post the newest information (government issues, political decisions, breaking news...) and to even accept comments.

Several studies have been conducted to analyze how citizens use social media to influence government activities. However, how does the government use this new tool during an extreme case such as a crisis? In order to explore how Chinese government agencies utilized social media during a particular social crisis, this study employed the

contingency theory to analyze the social media posts (Weibo posts) by several Chinese government accounts and government controlled news accounts.

## **Literature Review**

### **Crisis Response Strategies and Crisis Responsibility**

Coombs (1998) defined that “Crisis responsibility represents the degree to which stakeholders blame the organization for the crisis event” (p.180). There are three factors that would potentially affect the perception of crisis responsibility: crisis attribution, organizational performance and severity of the crisis (p.181).

Weiner introduced the Theory of Attribution in the 1980s. In his model, he pointed out the three causal dimensions of attribution, which are the locus of the behavior, the stability of the behavior and the controllability of the behavior. If we combine his model to a crisis situation, we can see that the locus of behavior indicates whether a crisis is caused by an internal or external factor, stability means whether the crisis is temporary or constantly happening and controllability shows if a crisis is within or without an organization’s control (Weiner, 1985).

The Theory of Attribution has been used in the crisis communication field for a long time, especially for post-crisis guidance. As people are curious about the cause of an event that is related to them (Weiner, 1985), it is natural for stakeholders to attribute responsibilities after a crisis. Then, the attributions people made after a crisis would in turn affect organizations’ reputations (Coombs & Holladay, 2005).

Coombs (1998) mentioned in his research that crisis communication strategies could be used to protect an organization’s image. Then he identified seven different strategies ranging from full apology (accommodative) to attack (defensive). Crisis responsibility and strategies are linked together. Benoit (1995) also concluded that if an

organization was seen as more responsible for a crisis, it was more effective to choose an accommodative strategy than defensive one to protect its image.

### **Internet Censorship in China**

During the past decade, the Internet has been a booming industry in China. According to a survey conducted by the China Internet Network Information Center (CNNIC), the number of Internet users in China has reached 253 million by July 2008, which surpassed the users in the U.S. and became the world's largest Internet market (CNNIC, 2010). In 2010, the number continued to grow to 420 million (Yu, Asur & Huberman, 2011).

Although China has the most Internet users around the world, the Internet penetration is still as low as 5.1% in rural areas. By contrast, in the metropolitan cities such as Shanghai, the Internet penetration rate is over 45% (CNNIC, 2010). Along with the growth of the Internet, social networks have become a major platform for millennials in China to get information and make connections to each other (Yu, Asur & Huberman, 2011).

One major part of China's Internet censorship is filtering. Internet filtering is the process by which users accessing the Internet from a particular network are blocked from visiting certain Web sites (MacKinnon 2009). "Censorship of this sort is by definition designed to be complete, in that it aims to prevent *all* access to such resources." (Bamman, O'Connor, & Smith, 2012, p. 2). There are various levels at which filtering can be done: the household; local business or residential networks; Internet service providers (ISPs); regional networks or at the national gateway level (Villeneuve, 2006).

In China, filtering is achieved at the gateway points through which information travels between the domestic Chinese Internet and the global Internet. By plugging “blacklisted” Web site addresses and keywords into the routers and software systems, the Chinese government is able to control the Internet traffic across Chinese domestic networks (Clayton, Murdoch & Watson, 2006).

MacKinnon (2009) identified several methods that the Chinese government has used to censor Internet content. The major methods are: the user is prevented to post at all; posts are “held for moderation”; posts are published in “private view,” but they are never visible to the public; posts are successfully published at first, but deleted or “unpublished” some time later; sensitive keywords or phrases are replaced with “\*\*\*”, but the posts are otherwise published; the content is successfully published but blocked to viewers attempting to read it from inside mainland China (p.6).

### **Social Media in China**

Right now the Chinese government has blocked some popular overseas social network sites like Facebook, Twitter and YouTube. However, several private-owned Chinese Internet companies have developed their own social network platforms, such as Weibo, Renren, and Q-Zone, which have the similar functions to the social network sites in United States. Chui (2012) found out that Chinese “Netizens” (people who form online communities) tend to spend more than 40 percent of their time online on social media, and this figure is continuing to grow rapidly.

A report released by Information Office of the State Council of the People’s Republic of China (2011) indicated that “The newly emerging online services, including blog, micro-blog, video sharing and social networking websites are developing rapidly in

China and provide greater convenience for Chinese citizens to communicate online” (p.27). More than 80 percent of Chinese social media users have multiple accounts on different platforms. Additionally, the platforms are more active than those of any other countries (Chui, 2012).

### *Micro-blog*

Micro-blog services are the emerging form of online communication. The most popular micro-blog system around the world is Twitter. There are numerous research studies about Twitter, but only few for Sina Weibo, though it is growing two times faster than Twitter (Guo, Li & Tu, 2011).

Similar to Twitter, a Sina Weibo account has a user profile that shows the basic information, profile picture, the number of followers and all posts the user has made. A Sina Weibo user can also follow any other users without seeking permission. On Weibo, if a user is following someone, he/she can receive all the messages from that user, and these messages are usually called tweets or posts (Cheng, Fu & Huang, 2013). Besides functioning like Twitter, Weibo combines the advantage of Twitter, Facebook and even Skype. It allows users to upload and share pictures, videos, music and books. It also provides services like instant message sharing, virtual meetings and open discussions (Wang & Zhou, 2013).

### **The Use of the Micro-blog in Government**

As social media have gained huge influence in people’s daily lives, a lot of government agencies or organizations have adopted it as a way to communicate with the general public. Wigand (2010) analyzed how United State’s government organizations

have adopted Twitter as a way to build relationship with U.S. citizens. He stated five reasons for a government organization to use Twitter:

(1) To extend the reach of existing of online messages such as news, speeches, web updates, and YouTube videos,

(2) To Build relationships with targeted audiences, stakeholders, and key influencers such as journalist and bloggers,

(3) To provide an informal “human” voice to foster engagement and comprehension of messages,

(4) To Enable audiences to interact easily with departments and officials, and

(5) To Provide ways for audience to subscribe to updates via RSS, email and SMS. (p. 565).

As both of these guides for using Twitter in government demonstrate, the uses of this simple and relatively inexpensive platform are proliferating as institutions adopt it.

Because of these advantages, the Chinese government organizations have also adopted Micro-blogs (especially Sine Weibo) in recent years. In 2009, Adweek published a survey that indicated that 66 percent of communication specialists and government decision makers considered opinions expressed on social media were more influential than ones on other media and were the most influential communication channel in modern China (Adweek, 2009). Micro-blog accounts with the name of Chinese cities have gained enormous popularity among Chinese citizens (Wang & Zhou, 2013). These accounts are typically launched, managed and owned by various governmental departments and organizations. They have attracted millions of followers and “promoted the overall image of cities with advertising and the promotion of full-scale city

information, including city news, scenery, foods and other sources” (Wang & Zhou, 2013, p.29).

McKinsey released a report in early 2012 that indicated that the number of government micro-blog accounts in China has reached 20,000. In October of 2012, the number of governmental micro-blog accounts changed to 50,561, increasing nearly 776.58 percent since 2011 (McKinsey, 2012). In 2012, the Chinese Xinhuanet also reported that there were more and more official government micro-blog accounts showing up to release new policies and information, and build cities’ images under the concept of “Micro-blog for all people” (2012).

This article also shows an example of Guangzhou, the capital city of Guangdong Province, which opened a new stage of “Microblog-Governance” (Xinhuanet, 2012). In their account (3.1 million followers by April 9, 2014), there is information of weather conditions, traffic regulations, major events and discussions about hot topics. Similarly, Hangzhou, the capital city of Zhejiang Province, opened an official micro-blog account (1.1 million followers by April 9, 2014), which highlighted the interaction between city government and its citizens to promote the image of the city (Xinhuanet, 2012). In 2013, the Chinese Ifeng website stated that Nanjing, the capital city of Jiangsu Province, had integrated micro blogs, microfilms and online mobile App games for city branding (Ifeng, 2013).

### **Micro-blog and Crisis**

Qu, Huang and Zhang (2011) performed a case study about how micro-blogging had been used in a crisis situation. They analyzed how Chinese citizens responded on Sina Weibo about the Yushu Earthquake in 2010. They found that during that natural

disaster, Sina Weibo was the most active place for Netizens to seek and share information, and to express their feelings and opinions. However, this crisis was a natural disaster that was caused by uncontrollable external factors. It was impossible to say who was responsible for it, so there were fewer comments that criticized the crisis itself.

Heverin and Zach (2010) also analyzed the roles that micro-blog sites played during a crisis. They chose a violent crisis that a suspect shot four police officers in the Seattle-Tacoma area of Washington in late November 2009. They found that citizens, news media, and other types of organizations were using Twitter as one of the major methods to share crisis-related information. The majority (79%) of the messages (tweets) they analyzed in the study were information-related. Moreover, when they looked through the unique authors of about 6,013 tweets, they found that a majority of the authors (91.5%) were citizens, followed by local and national media (p.2-3).

Besides being used by the affected public, micro-blogging has also been used by organizations involved in a crisis. Schultz, Utz, and Göritz (2011) concluded that crisis communication via Twitter would lead to less negative crisis reactions than blogs and newspaper articles. Moreover, when compared to blog users and non-social media users, Twitter users were more likely to share the messages.

However, there is always a question when using social media as a communication channel during a crisis – how to distinguish rumors from other reliable information? Social media sites such as Facebook, Twitter and Weibo do not automatically indicate the difference between reliable sources and rumors when they were posted.

The case of missing flight Malaysia Airline 370 is a good example. On March 8, 2014, Malaysia Airlines released a statement confirming that they had lost contact with

Flight 370. Since then, there were over 8.4 million posts on Sina Weibo that related to the topic “MH370.” As Malaysia Airlines released more statements about the condition of the flight, several conspiracy theories occurred. Some theories came from the relatives of the Flight 370 passengers and some were from Netizens on Sina Weibo. There were theories of cyber attacks, alien abductions and hijacking, and the hijacking theory was the dominant one.

Mendoza, Poblete and Castillo (2010) conducted research in which they identified two categories of tweets: confirmed news and false rumors. They analyzed how the two types of tweets were propagated on Twitter during the Chile earthquake in 2010. They found that Twitter community actually had the ability to detect rumors, because it could work like a collaborative filter of information. Twitter users tended to question tweets in the “false rumor” category more than ones in the “confirmed news” category.

### **Context of the Study**

The air pollution has been a critical issue for developing countries, especially in China and India. The World Health Organization recently released a report that indicated that air pollution killed seven million people each year. It also indicated that outdoor air pollution might cause ischaemic heart disease, stroke, chronic obstructive pulmonary disease, lung cancer and acute lower respiratory infections in children (2014). During the last few months, the Chinese government has faced the worst smog problem ever, which made the capital city Beijing an unpleasant place to visit. The same problem exists in New Delhi, India.

In the 2014 edition of the Environment Performance Index, China and India were both the last ranked countries with regard to air quality (CNN, 2014). According to an

article in Scientific American, “nearly the entire population of both countries is exposed to harmful particulate matter less than 2.5 micrometers in diameter, known as PM2.5, which can penetrate human lung and blood tissue and contribute to lung disease and premature death” (2014). Although this problem has attracted tons of media attention, the national air quality measurement capabilities remain weak in most countries. It is impossible to compare two countries or even two cities’ air pollution. It’s necessary for countries to work together and build an international standard index to monitor the air pollution level.

On February 20, the Beijing Government issued its emergency smog alert system, the first time since it was introduced last October. For more than five days, it showed repeatedly the second-highest warning level. ABC News reported that from February 20 to 25, the air pollution levels were measured above 450 on an air quality index, which was nine times the safe level for human beings (2014). On February 26, Beijing's official reading for PM 2.5 had reached 501 micrograms per cubic metre on, while the WHO's recommended safe limit is 25. WHO’s representative in China started to describe this issue as an “environmental crisis” (SBS, 2014).

This smog crisis has caused a huge discussion on Sina Weibo. There were more than 7.8 million Weibo posts that were related to the key word “smog” (雾霾) from February 20 to February 27. Although there were several factors that may cause smog, such as automobile exhausts, Chinese citizens were more likely to blame the government for heavy-industry such as power plants, chemical solvents, and even plastic popcorn packaging -around the city. This situation is more common on social media than on

traditional media, though some government controlled traditional media are trying hard to explain that there might be alternative reasons for the smog.

## **Theoretical Framework**

### **Crisis Management**

The theoretical foundation of my research is contingency theory in crisis management. Crisis is inevitable to all organizations. Crisis is a sense of threat, urgency, and destruction that provides high uncertainty to an organization (Seeger, Sellnow & Ulmer, 2003).

The contingency theory of accommodation, also known as “It depends” theory, is an alternative to the theory of excellence in public relations. It was proposed by Amanda Cancel, Glen Cameron, Lynne Sallot and Michel Mitrook in 1997. Unlike James Grunig’s theory of excellence, which is based on two-way symmetrical communication model in public relations, contingency theory is more about indicating “what is going to be the most effective method at a given time”(Cameron, Cancel, Sallot & Mitrook, 1997, p. 35). It represents a more accurate model of how public relations is practiced in the real world (Cameron, Cancel & Mitrook, 1999)

The contingency theory was followed by the dynamic nature of crisis. Crisis management has four stages in its life cycle – the proactive phase, the strategic phase, the reactive phase, and the recovery phase. The proactive phase is the one that identifies issues and key publics. The strategic phase stands for the time to make plans that could respond to future issues. The reactive phase is the time that crisis is happening. Finally, the recovery phase stands for the time after a crisis happened (Cameron, Wilcox, Reber & Shin, 2008).

The boundaries of the four phases are not strictly clear. However, it is still important to identify the crisis life cycle in order to get effective crisis management. In

each stage of a crisis, an organization might need to choose a different stance based on the given situation. Also, contingency theory recognizes that it is possible that there are multiple publics that an organization should address in a given time, since sometimes publics can be dynamic and difficult to reach. The stance taken to respond to each of them must be equally dynamic (Cameron et al., 1997).

The contingency theory is based on a continuum from pure accommodation to pure advocacy. When there is a crisis, an organization must choose its stance, which determines its strategies. An organization's stance is shaped by many complex factors. "It depends" as a system of managing crisis has been proven useful to monitor and control the course of crisis (Cameron et al., 1997).

Advocacy is one of the major functions for a public relations practitioner (Smith, 1972). J. Grunig (J. Grunig & L. Grunig, 1990) also made a similar observation. He wrote: "Many, if not most, practitioners consider themselves to be advocates for or defenders of their organizations and cite the advocacy system in law as an analogy" (p. 32). The advocate stance can be seen as denial, excuses, and so on.

On the other hand, being an accommodator is another core function of public relation practitioners. They serve the role of building and maintaining mutually dependent relationships between an organization and its public (Cutlip, Center & Broom, 1985). An accommodation stance could be referred as the words like dialogue, compromise, collaboration or cooperation. Cameron et al. (1997) then proposed, "Public relations practitioners must typically choose, either consciously or by default, a stance somewhere between pure advocacy and pure accommodation" (p.37).

In 1999, Cameron, Cancel and Mitrook conducted a qualitative study to test the

contingency theory. They interviewed 18 public relations practitioners to see if the continuum made sense to them. They also tested the validity of variables that would possibly affect how public relations practitioners and their respective organizations deal with a crisis. These 18 public relations practitioners were all middle- or upper-level managers in different organizations.

There are 86 variables that affect an organization's stance. The combination of factors determines how an organization responds to its publics. There are two types of variables: a predisposing variable, which indicates an organization original stance on the continuum; and a situational variable, which moves its stance along the continuum during a crisis (Cameron et al., 1997).

The most supported predisposing variables include corporation size, corporation culture, business exposure, individual characteristics, dominant coalition enlightenment and public relations access to dominant coalition. On the other hand, the urgency of situation, characteristics of the external public's claims or requests, characteristics of external public, potential or obvious threats, and potential costs or benefits for a corporation are the most supported situational variables (Cameron et al., 1999).

### **Crisis Communication in the Social Media Context**

Social media platforms, such as blogs, Facebook and Twitter are free for the expression of ideas and information. Using online platforms to convey crisis responses has become a new way for public relations specialists to reach their publics.

Social media allows individuals to become sources of information online "sharing opinions, insights, experiences and perspectives with others" (Marken, 2007, p. 10).

Twitter especially has been used for many crisis cases such as the 2010 Haiti earthquake

to share initial information. People who are directly affected by the crisis now have the firsthand information and willing to post it online immediately. Not only private individuals, but also news media and government agencies have adapted to social media environments and have started to share information online.

### **Contingency Theory as Applied to a Crisis Management Case in China**

There are cases shows that contingency theory has been used to analyze crises in China in recent years. For example, in 2007, Yan Jin, Augustine Pang and Glen Cameron performed a content analysis on how Singapore and Chinese resolved the SARS crisis. This is the one of few studies that examined crisis communication at a national level. In this study, they used the contingency theory of conflict management to analyze how the governments managed their public and the stances they took during the crisis.

This research compared two governments at three levels: 1) the strategies they used to manage the emotions of the public; 2) the ways they identified the key publics; and 3) how the two governments' stances moved along the continuum through out the crisis life cycle (Jin et al., 2007). During the research, they used articles from major newspapers of Singapore and China from March 18, 2003 to June 7, 2003.

The research results showed that the pattern of crisis strategies the Chinese government used fit within the contingency theory. The stance of the government varied based on different types of publics and the lifecycle of the crisis. This study guides my project. I also would like to see any changes in the social media context.

## **Research Question**

What crisis response strategies used by the Chinese government were in evidence in the micro-blog posts of four government official accounts regarding the smog crisis from February 20 to 28, 2014, in Beijing? In what ways did they differ, comparing the government owned media accounts and government agency accounts?

## **Methodology**

In order to investigate how the Chinese government responded to the Beijing's smog crisis that occurred in February 20 to 28, 2014 by participating in China's micro-blogging site (Weibo in Chinese), a quantitative content analysis will be conducted to examine the related posts from four Weibo accounts – People's Daily, CCTV News, Beijing Announcement (Information Office of Beijing Municipality Government) and The Central People's Government.

### *Traditional Content Analysis*

It is important to study communication content because it is believed to be effective on changing human behavior (Krippendorff, 1980). Content analysis is a scientific tool, which could be both quantitative and qualitative (Krippendorff, 2012). It is, by definition, "a research technique for the objective, systematic, and quantitative description of the manifest content of communication" (Berelson, 1952, p.18). The purposes of content analysis, as Wimmer and Dominick (2006) have concluded, are: describing communication content, testing hypotheses of message characteristics, comparing media content to the real world, assessing the image of societal groups, and establishing a starting point for studies of media effects (p.157-159).

This research fulfills mainly the second, fourth and fifth purposes. I coded the Weibo post content into different crisis response strategies, which show the message characteristics. Also, by analyzing the crisis response strategies, this study looked at the stances that Chinese government took during the crisis, which indicated the government's social image. Finally, social media and government crisis management are relatively new in China. Only in recent years has the Chinese government started to open Weibo

accounts to interact with its citizens. There is handful research in these areas. This study combines these two topics (social media and government crisis government), and sets the stage for future investigation.

This research follows Riffe et al.'s (2006) five-step procedure in quantitative content analysis. The first step is to formulate a research question or hypothesis and review previous related research; second, to perform the content sampling, which follows the procedure of survey sampling; third, to write a code book and identify analysis categories and units; fourth, to train coders and calculate inter-coder reliability; and fifth, analyze the coded data.

Although content analysis has been considered as an objective and systematic research method (Berelson, 1952), there are still several limitations (Guthrie, Petty, Yongvanich & Ricceri, 2004). The major limitation is the subjectivity involved in the coding process (Frost and Wilmshurst, 2000). Since I was the only one coder in this study, I needed to take great care in coding for issues of validation and reliability.

#### *Internet Content Analysis*

The Web-based content shows some unique characteristics when compared to traditional communication content. It changes constantly and represents real-time situation, which provided both challenges and opportunities in sampling and coding, at each step of the traditional content analysis (McMillan, 2000).

McMillan (2000) analyzed 19 studies that used content analyses on Web sites. She concluded that the dynamics of changing web content made the sampling procedure much harder than with a traditional content analysis. She also found that a common technique in Web content analysis is to use the search engine. This is exactly what I did

in my sampling process. The Weibo has its own search functions in each account. If I put several key words related to the smog crisis into the search bar, then it gave me all the posts since the account that contain one of the key words opened.

Although challenges exist for Web-based content analysis, it helps reduce the cost of data collection because of its availability. Presently researchers can access the data through electronic databases almost anywhere they want (Lin & Weare, 2000).

#### *Content Analysis in Crisis Management Studies*

A lot of studies also use content analysis to examine Web-based content, such as social media posts, online press releases and consumer comments. Choi and Lin (2009) conducted a content analysis of consumer online responses (comments) about a product recall crisis. In their study, they retrieved the comments from an online bulletin board and coded the comments into ten different emotional categories. Similarly, Cho and Hong (2009) used a quantitative content analysis to examine 239 corporate social responsibility stories and to categorize them into six different types. Unlike other studies, Cho and Hong's study got the stories from both traditional newspapers and websites.

Quantitative content analysis has been widely used in crisis management studies. Jin, Pang and Cameron (2007) performed a content analysis that compared stances and strategies taken by the Chinese and Singapore governments during the SARS crisis. They analyzed the articles from newspapers in two countries. The articles were collected in about four month's time, from the SARS hit to the eradication SARS free. Then, the researchers used the search engines in both newspapers' website and extracted the articles from online archives. My present investigation replicates the sampling procedure that used in this study, because online search engines are needed to find the relevant posts.

## **Sampling and Procedures**

This study retrieved original posts from four major government-controlled Sina Weibo accounts (approximately 400 posts). Since I analyzed the strategies and stances the Chinese government took, the responses of the posts were included, because the search engine on Sina Weibo is not programmed to retrieve relevant comments made by other members.

### *Data Collection*

The data was collect from Sina Weibo, a Twitter-like Chinese micro-blog website (Qu, Huang & Zhang, 2011). Sina Corporation launched it in August 2009 (China Daily, 2011). By December 2012, the number of registered users on Sina Weibo reached more than 400 million (Gao, 2013).

There are several other micro-blog services in China, which include Tencent Weibo (the owner of qq.com) and Sohu Weibo. The reason I choose Sina Weibo from all other services are: first, Sina Weibo is the most known micro-blog service with biggest user group; second, there are five more developed provinces (Beijing, Shanghai, Guangdong, Zhejiang, Jiangsu) that comprise about 52 percent of all Sina Weibo users, whereas Tencent Weibo is more likely used in second-tier or third-tier cities (Guo, Tu, Z. Li & L. Li, 2012); third, Sina Weibo provides a user identification system that requires users to provide real information to be a VIP.

This study collected the posts related to “smog” during February 20 to 28, 2014 on four government official Sina Weibo accounts. February 20, 2014 was the day when Beijing had severe smog that hit the recorded levels of [over 400](#) on the air pollution index, referring to the number of PM2.5 -- harmful particulates measuring 2.5 microns or

larger -- per cubic meter of air (CNN, 2014). Eight days later on February 28, the smog eased after a heavy rain.

The posts were retrieved from December 1, 2013 to May 24, 2014. Since a crisis is a continuous process that needs a great amount of time to develop, but also would affect citizen during the time after the crisis, the time frame of the posts has been divided to three parts: pre-crisis (December 1, 2013 to February 19, 2014, which are 12 weeks in total), during crisis (February 20 to 28, 2014) and post-crisis (March 1st to May 24, which are 12 weeks in total).

### *Coding*

This study coded the stance and response strategies used by the Chinese government during the smog crisis. Certain variables used by Jin et al. (2007) were chosen to analyze in this study.

### *Variables*

The variables will be coded in this study were:

1. The overall impression on the stance of the Chinese government (measured on a seven point Likert scale with 1 as “ Strong Advocacy” to 7 as “ Strong Accommodation”)
2. Crisis management strategies employed by Chinese government:
  - a. Attack
  - b. Denial
  - c. Excuse
  - d. Justification
  - e. Corrective action

- f. Ingratiation
- g. Cooperation
- h. Full Apology

The study conducted by Jin et al. (2007) combined Coomb's (1998) crisis communication strategies into the contingency theory proposed by Cancel, Cameron, Sallot and Mitrook (1997). Then, they proposed a list of specific definition of each strategy:

- a. Attack – confronting the party and actively advocating that it follows a certain course of action to help fight the crisis.
- b. Denial – state that the culpability does not rest with the party in question, or denying that the crisis is of any consequence
- c. Excuse – minimizing the party's responsibility for the crisis and/or shifting responsibility for the crisis to an external factor.
- d. Justification – the party explaining why it has to take a certain course of action.
- e. Corrective action – the party actively taking a course of action that is meant to address the problem in sight.
- f. Ingratiation – the party actively taking a course of action that is meant to make the other party approve of its actions, leading to a favorable impression.
- g. Cooperation – the party making overtures to reach out the other party with the goal of resolving the problem.

- h. Full Apology – the party taking full responsibility for the crisis and asking for forgiveness, with the promise of some form of compensation that comes with the apology (Jin, et al., p.35).

Other information to be coded:

1. The source of posts
2. The date of posts

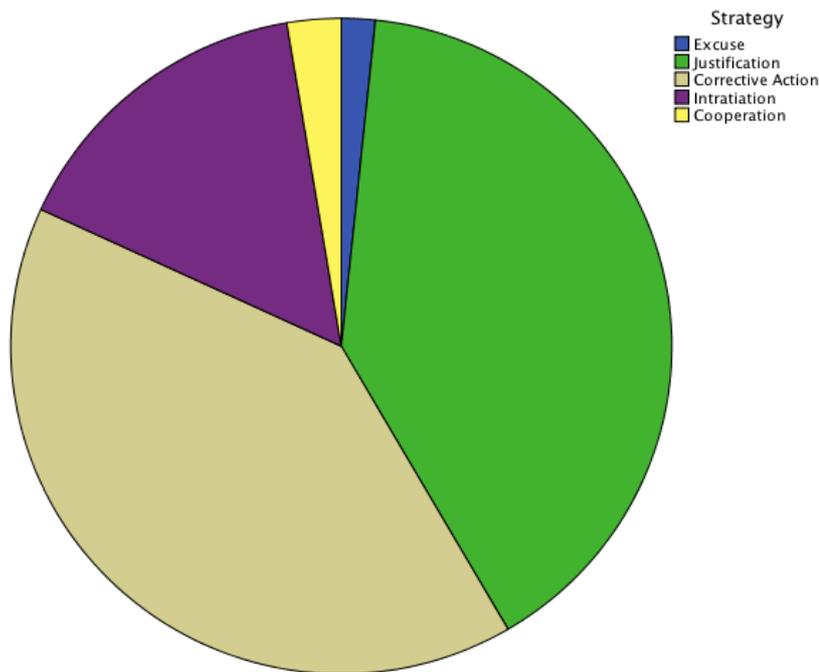
If there was a post reflected more than one strategy, I only chose the one that seemed more relevant.

## Results

### Data Interpretation

A total of 391 Weibo posts were chosen to analyze in this study. After filtering out the duplicate posts, 303 posts were valid and coded into the SPSS for further statistical analysis.

Among all 303 posts, five were coded as reflecting the “Excuse” strategy (1.7 percent), 121 reflecting the “Justification” strategy (39.9 percent), 122 reflecting the “Corrective Action” strategy (40.3 percent), 47 reflecting the “Ingratiation” strategy (15.5 percent), and eight reflecting the “Cooperation” strategy (2.6 percent). “Attack,” “Denial” and “Full Apology” strategies were not reflected in the posts.



*Figure 1 Percentage of different strategies reflected in the Weibo posts*

### **Posts during Three Different Phrases**

During the pre-crisis phrase, there were 142 posts related to “smog.” After being divided by 12 (12 weeks), the average number of posts per week was 11.8. During the crisis phrase, there were 49 posts coded. For the post-crisis phrase, 112 posts were related to “smog.” After being divided by 12, the average number of posts per week was 9.3.

The means of stance (level of accommodation) during three different time phrases were compared using a one-way ANOVA. No significant difference was found ( $F(2, 300) = 0.521, p > .05$ ). The level of accommodation the posts reflected during three different phrases did not differ significantly from each other. The level of accommodation during pre-crisis phrase had a mean score of 5.27 ( $sd = 1.11$ ). The level of accommodation during crisis phrase had a mean score of 5.22 ( $sd = 1.23$ ). Finally, the level of accommodation during post-crisis phrase had a mean score of 5.39 ( $sd = 1.17$ ).

A chi-square test of independence was calculated comparing the frequency of different strategies at three different phrases. No significant relationship was found ( $\chi^2(8) = 13.124, p > 0.05$ ). The strategies reflected in the posts were not dependent on the different time phrases.

### **Stance Reflected in Two Types of Government Weibo Accounts**

The mean score of the stance (level of accommodation) among four accounts was 5.3 ( $sd = 1.15$ ), which falls between “Little Accommodation” and “Accommodation”.

An independent-sample  $t$  test comparing the mean score of level of accommodation between government agency Weibo account and government controlled media Weibo account found a significant difference between the means of the two groups ( $t(301) = -6.522, p < .05$ ). The mean of level of recommendation reflected in the posts

from government controlled media group ( $m = 5.059$ ,  $sd = 1.17$ ) was significantly lower than reflected from government agency group.

sourcetype		N	Mean	Std. Deviation	Std. Error Mean
Stance	Media	220	5.0591	1.17086	.07894
	Government	83	5.9639	.77216	.08476

*Table 1 Mean score of stance between two types of accounts*

### **Stance Reflected in Four Government Weibo Accounts**

I computed a one-way ANOVA comparing the stance (level of accommodation) from four different Weibo accounts. A significant difference was found among the four accounts ( $F(3, 299) = 25.595$ ,  $p < .05$ ). Tukey's HSD was used to determine the nature of the difference among the four accounts. This analysis revealed that posts from CCTV News reflected lower level of recommendation ( $m = 4.75$ ,  $sd = 1.05$ ) than the People's Daily ( $m = 5.51$ ,  $sd = 1.19$ ), Beijing Announcement ( $m = 5.91$ ,  $sd = 0.78$ ) and The Central People's Government ( $m = 5.31$ ,  $sd = 1.15$ ). Moreover, the level of accommodation reflected in the People's Daily was not significantly different from the Beijing Announcement and The Central People's Government. Also, the level of accommodation reflected in the Beijing Announcement was not significantly different from The Central People's Government.

Stance	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					People's Daily	90		
CCTV News	130	4.7462	1.05148	.09222	4.5637	4.9286	3.00	7.00
Beijing Announcement	66	5.9091	.77910	.09590	5.7176	6.1006	4.00	7.00
The Central People's Government	17	6.1765	.72761	.17647	5.8024	6.5506	4.00	7.00
Total	303	5.3069	1.14865	.06599	5.1771	5.4368	3.00	7.00

*Table 2 Mean scores of stance among four different accounts*

### Strategies Reflecting in Two Types of Government Weibo Accounts

A chi-square test of independence was calculated comparing the frequency of different strategies between two types of government Weibo accounts. A significant interaction was found ( $\chi^2(4) = 31.866, p < 0.05$ ). The government-controlled media Weibo accounts were more likely to reflect the “Excuse” strategy (2.3 percent) than the government agency Weibo accounts (0 percent), more likely to reflect the “Justification” strategy (48.2 percent compared to 18.1 percent), less likely to reflect the “Corrective Action” strategy (36.4 percent compared to 50.6 percent), less likely to reflect “Ingratiation” the strategy (10.5 percent compared to 28.9 percent), and more likely to reflect the “Cooperation” strategy (2.7 percent compared to 2.4 percent).

Strategy	Type of Account	
	Government-controlled media Account	Government Agency Account
Excuse	2.3%	0.0%
Justification	48.2%	18.1%
Corrective Action	36.4%	50.6%
Ingratiation	10.5%	28.9%

Cooperation	2.7%	2.4%
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*Table 3 Percentage of strategies reflected in the two types of accounts*

**Strategies Reflecting in Two Types of Government Weibo Accounts**

A chi-square test of independence was calculated comparing the frequency of different strategies among four different Weibo accounts. A significant interaction was found ( $\chi^2(12) = 58.285, p < 0.05$ ). The percentages of strategies reflected in the four different accounts are listed below.

	Source			
Strategy	People's Daily	CCTV News	Beijing Announcement	The Central People's Government
Excuse	0%	3.8%	0%	0%
Justification	35.6%	56.9%	21.2%	5.9%
Corrective Action	42.2%	32.3%	51.5%	47.1%
Ingratiation	16.7%	6.2%	24.2%	47.1%
Cooperation	5.6%	0.8%	3.0%	0%

*Table 4 Percentage of strategies reflected in the four different accounts*

Only posts from CCTV news reflected the “Excuse” strategy, and more “Justification” strategy than in the other three accounts. Posts from the Beijing Announcement reflected more “Corrective Action” than the other three accounts. Posts from The Central People’s Government reflected more “Ingratiation” strategy than other three accounts. Finally, the People’s Daily reflected more “Cooperation” strategy than other three accounts.

## **Conclusion and Discussion**

By analyzing the Weibo posts from four government accounts, it could be concluded that social media have become an very important tools for governments to not only communicate with their citizens, but also promote reputations and good images regarding social crisis. The Chinese government is willing to accommodate its citizens and make promises for future actions on social media, instead of remaining silence like some tradition media forms would normally do.

This study revealed several significant findings. The first one is that the Chinese government tended to adopt an accommodative stance towards the social crisis of smog on social media (Weibo). Moreover, instead of showing attack or denial strategies, as suggested in some traditional media, it's more likely to reflect several accommodative strategies like justification or corrective action.

Why does the Chinese government seem like to try to be more accommodative on social media? There are several explanations for this situation. First, social media is an open platform for Chinese citizens. Anyone could register an account online without showing identification. Although it is not fully "open" since there is still government censorship such as deleting seditious comments or forcing to close personal accounts, it is still a quite effective place to spread ideas and promote interactions compared to traditional media.

Additionally, social media are less controllable than traditional media. Traditional media like newspapers have an editorial process that could be censored before a new article is released. Although some social media have automatic censorship systems that could detect sensitive words, and prevent users from sending the posts out, there are

always ways to get around it. For example, if the word “sex” were detected as a sensitive word, most of people would type it as “se2x” in order to get through the system; the deleting process is not automatic. The Chinese government actually hired a large amount of people delete posts, which is time consuming.

Moreover, China has a very special media environment that its citizens sometimes believe in information on social media more than that in traditional media, because of a long-time media censorship. Although the situation has gotten better in recent years, the scrutiny on traditional media still cannot be ignored, which has made social media even more “credible.” Based on this situation, the Chinese government actually made a smart move to choose a more accommodative stance and strategies on social media. Around five years ago, when there was no social media platform, the traditional media would stay silent on some sensitive topics, especially on crises.

However, on social media, it is not easy to stay in silence anymore. Even the government could control official media accounts, it is too hard to monitor millions of people’s social media activities in every seconds. Therefore, the Chinese government has used a “stealing thunder” strategy to show their stance and to promise some corrective actions before critiques from Chinese citizens.

The second significant finding is that when comparing two types of government accounts (government-controlled media accounts vs. government agency accounts), the posts from media accounts showed a less accommodative stance. Also, among four accounts, posts from CCTV News showed the lowest level of accommodation, which almost falls between “Neutral” and “Little Accommodation”.

There were several reasons that might explain this finding. First, we can consider

the nature of media. The media are supposed to be objective on news, by only providing facts with minimal opinions. Some posts from CTV News and the People's Daily mainly described the situation like "the emergency level of smog," temperature and how harmful the smog might be to human body.

The second reason might be the function of the government social media account in China. As I mentioned earlier, the Chinese government tends to use the social media to interact with its citizens and get comments on current policies. However, due to the Internet censorship, it might just be an appease strategy that gives Chinese citizens a way to express their disappointments and negative emotions (without seditious languages). By doing so, it might prevent physical actions intended to attack the government. If we take this point into consideration, it might explain why the government agency account would show a more accommodative stance: the existence of these accounts is to appease the citizens.

The third significant finding is that the posts from the government-controlled media accounts are more likely to provide explanations (justification strategy) for the smog crisis (of course the explanations are not directed to the government), while the posts from government-agency accounts make promises for the future, such as establishing policies to secure a better environment and clean the air. This finding could be also explained by my previous point that the government agency account would endeavor to accommodate its citizens to avoid physical or even cyber attacks on the government by citizens.

The second factor to explain this finding is the function of media. Although the media should be neutral on the content, I still believe one of its functions is to be an

advocate. The only question is an advocate for “whom.” Since the Chinese government controls CCTV News and the Peoples’ Daily, it is not hard to know their main function is to advocate for itself, not its citizens. Also, there is a very interesting phenomenon in China that the government is trying so hard to create the illusion that it doesn’t control some media, and wishes its citizen to believe it. Therefore, the government might think its citizens would believe more in the media accounts (controlled ones), which made non-government related excuses for the smog crisis. On the other hand, to interact with the controlled media accounts, the government agency accounts would make several promises in an attempt to appease the citizens, to tell them that the government is making great effort to solve the problem.

Although the Chinese government shows a very positive attitude towards dealing with social crises on social media, due to the continuous Internet censorship, the effectiveness of the interactive function of the government accounts is reduced. Moreover, it is highly possible that the Chinese government uses these accounts to mainly prevent the physical gathering and attack of government agencies.

This study has several limitations. First, it didn’t consider the specific type of crisis. The smog crisis this study chose had complex causes. Some people blamed the government for heavy industry, but others considered it a natural disaster. In future studies, the research could choose a human-error crisis that was caused directly by the government to see how it uses social media to show stances.

Second, this study didn’t look at the interaction between the government and citizens on social media, because I did not take comments from citizens into consideration. Interaction is actually a very important aspect when analyzing social

media use. However, due to the media censorship in China, it is difficult to get comments from both positive and negative sides. Most of the negative comments were deleted within a couple of minutes. For the future studies, it might be good to analyze the citizens' side to see how they interact with their government on social media, or to see if the government's stance might change based on the negative comments.

Third, this study only chose four accounts on a single social media platform, because of the time limitations. For future studies, the researchers might look into more accounts (both local and national) to see how different levels of government respond to the same social crisis. They can also analyze the media accounts that are not directly related to the Chinese government.

Finally, though Weibo is the most popular social media platform in China right now, there are other platforms that are worth studying, such as Tencent Blog and Renren. Future researchers should look into several social media platforms to find whether the government might show different stances within different platforms.

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