



Public Response to Government Information on Weibo: Friction, Contestation, and Crisis Communication During the 2018 Shouguang Flood in China

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Abstract

Sina Weibo, a popular social media platform in China, plays a crucial role in crisis communication. During the 2018 Shouguang flood, the public criticized the government's delayed, insufficient, and inaccurate information on Weibo, leading to tension between the public and the government. We interviewed 33 Weibo users to understand their experiences in challenging the government's flood-related information. Key areas of contention included the timing of information release, the portrayal of the crisis, and the government's role as the primary crisis manager. When the government's information fails to meet public expectations, it can lead to online discussions that undermine trust. This article delves into the territory of crisis communication by examining how public online debates evolve in a state-controlled online setting, specifically in China. We propose that diverse interpretations of crisis information serve as a tool to enhance collective crisis response, thereby reducing conflicts among stakeholders.

Keywords

Sina Weibo; Crisis Communication; Trust; Public Online Contestation; Risk Governance; Friction



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Общественная реакция на информацию правительства в Weibo: столкновение, дискуссия и кризисная коммуникация во время наводнения в Шоугуане в 2018 году в Китае

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Аннотация

Sina Weibo популярная социальная платформа в Китае; она играет важную роль в кризисной коммуникации. Во время наводнения в Шоугуане в 2018 году общественность критиковала позднюю, недостаточную и неточную государственную информацию в Weibo, что вызвало трение между общественностью и правительством. Мы опросили 33 пользователей Weibo об их опыте использования Weibo для оспаривания государственной информации о наводнении. Ключевые моменты спора включали в себя время публикации информации, описание кризисов и вопрос об ответственности правительства как основного управляющего кризисом. Когда государственная информация не удовлетворяет общественность, она может поднять этот вопрос в интернете, а это подрывает доверие. Эта статья вносит вклад в область кризисной коммуникации, исследуя, как общественные онлайн-споры разворачиваются в государственно регулируемой онлайн-среде, а именно, в Китае. Мы предлагаем, чтобы различные конструкции кризисной информации могли служить ресурсом для улучшения коллективного ответа на кризис и, таким образом, предотвращения трения между заинтересованными сторонами.

Ключевые слова

Sina Weibo; кризисная коммуникация; доверие; общественные онлайн-споры; управление рисками; трение



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1 Корреспондирующий автор



Introduction

Shouguang is my hometown. After several days of continuous rain in Shouguang, increased water suddenly caused a flood. I searched for flood-related information on Weibo. I saw much farmland was flooded and livestock drowned. But I found that the information given by the government was not consistent with what I knew. I started posting constantly, and I saw a lot of posts from Shouguang people. The topic of the Shouguang flood was promoted to hot search but was quickly removed. Still, I was touched that many people helped us spread the flood-related information and donated relief goods. Although the governmental users reported the flood on Weibo, the late report and vague description made me question whether the cause of the flood was not only a natural hazard but also a manufactured one.

This story was told by Weipin (a pseudonym of a participants in this study), whose family was affected by the 2018 Shouguang flood in Shandong province. According to Weipin, the Chinese government underreported the flood's impact on the city of Shouguang and provided insufficient crisis relief. Many Sina Weibo users posted or reposted flood-related information which did not echo that by the government user account – the Shandong government (@ 山东政府). In this massive online posting campaign, users contested the official version of crisis information by assembling their own informal version, as a means to persuade and push the local government to investigate the course of the flood and the extent of crisis response, as well as improve search and rescue efforts.

Social media has come to play an important role in crisis communication as natural hazards increase, since it enables participation by the public (individuals including celebrities and citizens). In contrast to the traditional one-to-many communications by media, the use of social media has expanded crisis response into a social system, with crisis information being disseminated within or between official institutional channels and those of members of the public (Palen et al., 2009). The government and the public can thus form a closer connection and cooperation, yielding benefits for crisis response (Medaglia & Zhu, 2017; Cheng 2020). In some cases, supported by first-hand witness accounts on social media, the public has been able to provide help more quickly and effectively than government agencies (Purohit et al., 2014).

The public can influence government behaviours, decision-making, strategies, and crisis response (Alexander, 2014). Citizen interactions on social media expand the flexibility and reach of the latter, and such networked platforms play a key role in empowering the government and the public to co-create public services for crisis communications (Chatfield & Reddick, 2018).

In this study, we bear in mind that differences in cross-cultural and political regimes and contexts can limit the applicability of many theories and practices (Tricker, 1988). Premised upon the particularities of the Chinese context, we will



take the 2018 Shouguang flood as a lens to better understand how the public contests the government information online. For our empirical case study, we use the term ‘Weibo-based crisis communication (WCC)’ to describe communication on crises conducted via the popular Chinese social media platform, Sina Weibo. With more than 500 million users to date, Weibo—whose design and functionality resemble Twitter’s—has become widely integrated into social media-based crisis communication in China, due to facilitating the rapid spread of information.

As opposed to democracies, the Chinese state has formulated and implemented a series of stringent regulations to censor social media (Gallagher & Miller, 2020). This is consistent with China’s status as one of the world’s most restrictive media environments, with one of the most sophisticated censorship regimes, particularly on the internet (Freedom House, 2019). Although the central government has allowed a certain degree of public online participation (Hsu, 2011), its tight control of social media allegedly works to reduce openness and participation online (Sullivan, 2013; Medaglia & Zhu, 2017).

Weibo has managed to partly break through this scenario, pushing users’ critical social discussion into political communication, serving to promote government decision-making while shaping Chinese society through the formation of public will (Chen & Jacobson, 2022). In demonstrating the process of public online contestation of the government narrative, we argue that crisis information is the core of WCC and triggers frictions between the government and the public. Dissatisfaction with government information can create friction, and lead to public contestation online, over critical points such as timing of information release and the description of crises by the government, alongside the government’s role as primary crisis manager. Such online contestation represents the resilience of the Chinese public, as a bold approach to expressing indignation, advocating for affected areas, and insisting on participating in crisis communication despite the strict censorship measures the government continues to enact.

We contemplate here, in two ways, how social media supplies ‘infrastructures’ for the practice of public contestation. First, we provide insights into crisis communication, demonstrating, from the public’s perspective, its friction with the government in WCC, to gauge the dynamics between the two main types of participants alongside the collective framing of risks, responsibilities, and ‘response-abilities’. Second, we contribute to the literature in the field by using WCC to explore how public online contestation unfolds in a state-moderated online environment. We suggest that divergent constructions of crisis information can become a resource to promote collective crisis response, improve cooperative risk governance, and avoid government-public frictions.

Although the social and political behaviour of the public on the Internet, and in particular on social media, has become a significant subject for many social science studies, this specific object of study (users of the Chinese blogging platform—Weibo), as well as Shouguang flood itself, has not previously attracted the attention of the relevant academic fields, which is an innovative research subject. Moreover,

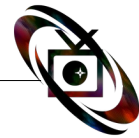


this study offers an original and unique dataset of interview data from closely relevant participants in online contestation in the 2018 Shouguang flood. By proposing the term 'online contestation in Weibo-based crisis communication', we demonstrate the fact that members of the public who were unable to form protests offline chose to engage in crisis communication online and amplify their voices for the affected areas and populations in a roundabout way, as well as to cause online contestation with state censorship, remains understudied scientifically, although this is prevalent in many countries, particularly in China. These aspects constitute the novelty of this study.

In an era of technological, man-made and climatic disasters, the ability to build flexible, trusting and cooperative relationships between States and members of society in times of crisis can save many lives and improve crisis response systems. In addition, we are witnessing the beginning of systematic encroachment on the free Internet by governments around the world, the introduction of increasingly stringent and comprehensive censorship, the expansion of power territories, and the invisible influence and suppression of public opinion. In this context, it is crucial to study the reactions and actions of members of society to hard-line censorship and to assess the long-term impact of these policies on society and the State itself.

Literature review

Social media has created new tools and resources and expedited social mobilisation in crisis communication, helping to turn the public into a force complementary to the government. In the western context, the degree of the public participation in government affairs online indicates the degree that democracy develops. Roberts (2004) defined public participation in a democratic society as processes in which the public directly shared decision-making power with the government. The government in this case accommodates public input in decision-making to motivate more inclusive democratic processes (Feldman & Khademian, 2007). While traditional media made it difficult to include the public from all backgrounds in public participation (Van den Berg et al., 2020), online infrastructures can be designed to facilitate it (Gillespie, 2010), inspiring a generation of civically-engaged netizens (Van den Berg, 2021). This has, of course, varied among contexts. In this study, what drives our investigation on the relationship between Chinese government and the public online participation is how such relationship is associated to the open and free construction of online space. We are interested in exploring to what extent social media censorship in authoritarian regimes like China complicates public online participation and how this might affect WCC. We also discuss and use the concept of trust to examine how the relationship between the government and the public during the crisis happens. This section borrows insights from literature on the censored Chinese social media environment and networked empowerment, construction of trust, and friction.



Chinese social media: a state-moderated environment

The development of online public participation in China is more complex than in the west. An interplay of contradictory forces is observed in China, due to its continual censorship of social media towards controlling public opinion. As a replacement to foreign social media, Weibo has built a new, relatively open network providing favourable conditions for public online participation in China, and has prompted academic disputes. Scholars have expressed doubts regarding the relationship between the government, online users, and platforms from two sides.

First, the government control on Chinese internet and information flow is the key reason that the public cannot fully participate in the discussion of public affairs online. Such control curbs the depth and width of that public participation online. Kaplan and Haenlein (2010) focused on governmental intervention, claiming that this inhibited public online participation since the government could detect public opinion from users' comments on its Weibo accounts and censor them (Schlaeger & Jiang, 2014). Rauchfleisch and Schäfer (2015) argued that diverse categorisations of openness, longevity, and participation demonstrated Weibo users' attempts to validate their discussions online. An empirical study by Medaglia and Zhu (2017) indicated that social media interaction between the government and the public was insufficient for Weibo to be recognised as a deliberative sphere for the Chinese public. Some researchers noted that consuming entertainment news was one of the main motivations to use Weibo, while they rarely involved politics (Benney & Xu, 2018).

Weibo users have been known to apply self-censorship prior to posting or commenting online, to avoid touching on taboo topics (Gueorguiev et al., 2017). Meanwhile, the Chinese government seems to have adopted an ingenious strategy to affirm its authority, by becoming more active on social media platforms and joining the online conversation as a new way to establish and maintain a favourable voice for the regime (Sullivan, 2013; Wang, 2018). Government censorship in China has also targeted the speech and discussions of influential users to prevent them from achieving a certain degree of virality or influence (Gallagher & Miller, 2020).

Second, optimistic scholars have pointed to increased public participation on Weibo. The internet was originally meant to provide an independent space to make individuals better informed and better engaged in political communication; in the ensuing dispute to shape online narratives, Weibo has commonly been taken as a case study in researching public online participation, since it has become a 'new battlefield for the state and social groups to compete for power and interests' (Zheng & Wu, 2006, p. 533). Sullivan (2012) argued that Weibo had the potential to facilitate public participation in discussing social issues due to the massive number of Chinese netizens, their unusually sociable, active personalities, and their distrust of government sources having helped Weibo users become a controversial force.



Increased social media use enables more members of the public to access information and constrains the ability of authoritarian governments to act without oversight (Qin et al., 2017). Moreover, Tong and Zuo (2014) demonstrated that when public opinion was strong enough, it could influence public policy and ensure that genuine public needs were being met.

Netizens' supervision of the government could be feasible on Weibo. Noesselt (2014) presented Weibo as a 'catalyst for social and political transformation' in terms of Chinese society's supervision of authorities (Xiao, 2011, p. 60). As a new mode of communication, social media has given the public an instrument to monitor the bureaucracy and draw attention to administrative insufficiencies with limited power, which represents a reconfiguration of state-society relations without a transformation of the overall political system (He & Warren, 2011). Hence, Weibo users are becoming a united force, gaining sufficient power towards ensuring effective governmental response to crises and affecting national politics and policy-related practices (Nip & Fu, 2016). While such public participation rarely happened in the traditional media era, a tendency has emerged in the digital era regarding greater public awareness of the struggle for power and efforts to demand government accountability via online interactions.

But despite becoming a tangible force for social oversight of government actions, Weibo users must still contend with state control and intervention both in the form of censorship and support of Weibo's commercial operations, facing limitations in self-expression. Thus, we maintain that the social media space is 'state-moderated' in China.

The construction of trust, and friction in a networked environment

Aforementioned, the relationship between Chinese government and the public online participation reflects power dynamic, which means the government has not always played a role as an unchallengeable authority. Chinese government also seeks out ways to promote its trustful image in front of the public during the crisis communication. A broad definition of trust concerns the belief that its holder will solve problems (Gambetta, 1988). A more specific definition is the 'willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party' (Mayer et al., 1995, p. 712). Poortinga and Pidgeon (2003) depicted trust as an important precursor to risk perception and acceptance in crises and thus as key to crisis communication. The provision and consumption of crisis information can directly manifest into trust-building between the public and the government in social media-based crisis communication.

Chinese government has developed various strategies to build the trust with the public online. In investigating government control and the elaborately planned release of Severe Acute Respiratory Syndrome (SARS) news coverage in China, Beaudoin (2007) found that a range of governmental information sources could



powerfully affect public perception of crises, developing greater trust among the public. Based on this dynamic, the regime provides crisis information while the public consumes it, and it is reasonable to expect the former to report on crises carefully, since it has a substantial social impact—especially in China, where the government is accused of withholding information to guard its image against controversy.

However, while some crises are attributed to natural causes, inadequate preparation or insufficient supervision may exacerbate them, which may lead to avoidable casualties, triggering heated exchanges between the public and the government, threatening trust, and generating frictions. As relevant points, Cunningham et al. (2018, p. 142) characterised friction as a situation ‘where the value-added that is anticipated is not realised by one or all the parties’; and Popa et al. (2020) portrayed friction as not an interpersonal clash but as a discrepancy between two or more value-creation processes that compete for limited resources. In other words, friction occurs when one party fails to carry out the desired set goals or responsibilities, or when multiple parties compete for resources and power throughout an event.

Xinhua (2016) reported that in a 2015 explosion in the city of Tianjin (The explosions occurred at a container storage station in the Binhai New Area of Tianjin, China), 165 people were killed and 798 injured, and economic losses reached £779 million. Ten hours later, however, Tianjin TV Station broadcasted South Korean dramas instead of reporting on the explosion. Although Tianjin Dongjiang Port Rui Hai International Logistics Co., Ltd, the company responsible for the explosion, had violated local urban planning regulations, it had not been exposed until the incident, which made people question the relationship between Ruihai and the local government. The Tianjin administration did not explicitly answer the public’s questions, leading to accusations that it had evaded its responsibilities and concealed information. Friction occurred because the government failed to responsibly play its role as primary crisis manager. Here, frictions can be seen as a test of the trust. As the government failed to respond the information demands of the public, the trust in-between has turned into frictions, which arouse the attention of government. Subsequent public attention forced the government to release the course of the explosion and the public demanded that the central government hold relevant departments and officials accountable. While tension is inevitable between the government, which promises security, and the public, the growing use of social media means that the public is no longer a passive recipient to crisis information. It is now possible for members of the public to prompt their administration to respond or reveal information in that way. It takes a networked form on social media, as in the Tianjin explosion, where the Weibo-using public prompted the governmental response.

From above, we noticed that although Chinese public expresses themselves in an arduous environment, it cannot prevent them to form collective power. Collective online participation shows the resilience and creativity of the public and



their (networked) empowerment. Empowerment is ‘a capacity of individuals, groups and/or communities to take control of their circumstances, exercise power and achieve their own goals, and the process by which, they can help themselves and others to maximise the quality of their lives’ (Adam, 2008, p. 5). Empowerment reflects how the public enjoys autonomy and self-determination to represent and pursue their interests spontaneously: simply put, it is a process of becoming stronger and more confident. According to Tyfield (2018), as a group of massive, dynamic, increasingly educated, cosmopolitan and prosperous, and indeed digitally adept, the Chinese population has developed a taste for autonomy it is keen to defend even as the governmental regime becomes increasingly determined to centralise control and reassert oversight.

Thus, the Chinese public can promote policy changes through effective and collective self-awareness (i.e. understanding the collective power to act) and capacity-building (Johnson, 2013). The wide application of social media reduces technical barriers to entry. Netizens generate autonomy, increasing consensus on the mutually motivating relationship between the public and social media. However, Yang (2003) argued that simple dualism was insufficient to capture the contradictions and complexity of online participation in Chinese social issues. The rapidly changing and evolving forms of public online participation and self-mobilisation are challenging to categorise precisely, as political or depoliticised, aggressive, or consensual.

Research questions

To understand how the public participates in WCC amid state-moderated crisis communication, and whether trust exists between the government and the public, we need to understand the emergence of friction between the government and the public by looking at a specific case.

We propose three research questions (RQs) to investigate the process of friction between the government and the public, how this friction was promoted, and what critical points of friction there were.

RQ 1. In WCC, how was this friction between the government and the public constructed?

RQ 2. What critical points caused this friction?

RQ 3. How did this friction affect the government’s reaction on it and public participation in WCC?

Methods

A controversial case: the 2018 Shouguang flood

This study is based on the controversial case of the 2018 Shouguang flood, since it clearly illustrates frictions between the government and public in WCC and particularly public online contestation, as indicated earlier in the text.



Between 19 and 21 August 2018, a massive flood hit Shouguang, a county-level city within Weifang and Shandong province, famous for its fruit and vegetable produce. Leaving 13 deaths, three missing persons, and £1.05 billion in damages in its wake, it was the worst flood in Shouguang since 1974.

During the flood, narratives diverged significantly between the government and the public (especially victims and their families and friends), leading to a heated debate on the authenticity and trustworthiness of distinct versions of crisis information on Weibo. Government user accounts were perceived as official crisis information providers, while individual users affected directly or indirectly by the flood assumed the role of informal crisis information providers. As flood-related posts spread, onlookers joined in the online campaign.

Data collection

The first author conducted interviews with 33 Weibo users between October 2018 and March 2020. All respondents were selected based on their participation in WCC related to the 2018 Shouguang flood, providing their thoughts, opinions, and reflections based on their experiences.

We recruited the interviewees through three channels: 23 through the Weibo private messaging functionality, by searching crisis-related posts and contacting the posters; six by snowball sampling; and four from both authors' personal networks. Since the subjects were from different cities in China, and due to limitations under the COVID-19 pandemic, the first author conducted semi-structured interviews via online audiovisual applications unrelated to Weibo, to protect the participants' privacy. Due to the limited time and contributors, findings for this study came from 25 respondents as a limited number of candidates accepted our invitation to participate in the interviews. Even though the sample size is limited, our data still present an image of how online contestation from the view of the public was carried out in the 2018 Shouguang flood from the sampled respondents and the data they contributed. In future research, we will expand the sample size and enrich the number and type of interviewees as much as possible in order to further discuss relevant research questions and phenomena. All interviews were conducted in Chinese, transcribed, and translated by the authors.

We explore the users' participation with Weibo during the 2018 Shouguang flood, by asking 'Can you please tell me your experience of using Weibo during the flood?'. The following questions include, but are not limited to: (1) Why did you use Weibo to express concern about this flood? (2) How did you access crisis information on Weibo, from what types of Weibo users, and why? (3) Have you noticed any regulation of content when you use Weibo? (4) Do/will you pay attention to the role and work of the government in responding to crises?

Sampled interview data

Table 1 provides basic information about 25 respondents mentioned in this study and summarises their stated purposes for online participation and roles during the flood.



Of the individual users, 17 were women and 16 men; thus, the gender ratio of respondents was quite balanced. The interviewees ranged from 19 to 55 years old, but the vast majority were in their 20s. They came from many walks of life, including students, new media editors, civil servants, entrepreneurs, actors, soldiers, and police officers. However, we have to note that most of our respondents are well-educated, and most careers of our respondents are related to new industries: IT, blogging, design, financial consulting, event planning, etc. It means that the overall characteristics of respondents are educated, well-off, Westernised, and younger generation. Thus, although the age and occupation are diverse, it can be representative of the current Weibo users instead of the diversity of structure of the population in China, which is a limitation of the respondents and sampled data that should be noticed in the future study. The diversity of the sample points to participation in WCC by both those directly affected by the flood and those concerned about the flood and its societal effects.

Participant (pseudonym)	Age	Gender	Occupation	Reasons for online participation	Role
Yi	27	Female	New Media Editor	Concern	Onlooker
Penna	26	Male	Student	Concern	Onlooker
Stone	24	Female	Student	Concern	Onlooker
Weipin	25	Female	Student	Personal exposure	Informal information provider
Binqi	26	Female	Lawyer Assistant	Hometown	Informal information provider
Clara	21	Female	Fashion Brand PR	Concern	Onlooker
Ming	19	Female	Student	Personal exposure	Informal information provider
Yuhan	21	Male	Actor	Personal exposure	Informal information provider
Tian	23	Female	Student	Concern	Onlooker
Xiaotian	27	Male	Social Media Worker	Concern	Onlooker
Hui	48	Female	Journalist	Concern	Onlooker
Baoluo	42	Male	The private sector employee	Concern	Onlooker
Nai	30	Female	Event Manager	Concern	Onlooker
Cong	25	Male	Student	Hometown	Informal information provider
Jun	24	Female	New media editor	Concern	Onlooker
Zhenbang	24	Male	Medical laboratory staff	Concern	Onlooker



Weiba	23	Female	Tourism Planner	Hometown	Informal information provider
Yami	26	Female	Financial industry staff	Hometown	Informal information provider
Chang	23	Female	Computer Engineer	Concern	Onlooker
Gao	28	Male	Building designer	Concern	Onlooker
Jairui	32	Male	Self-media producer	Personal exposure	Informal information provider
Shicheng	24	Female	Financial planner	Concern	Onlooker
Che	37	Male	Advertising staff	Concern	Onlooker
Ziju	23	Male	Self-Media focus on Environment	Hometown	Informal information provider
He	52	Male	Earthquake researcher	Concern	Onlooker

Table 1. Basic information for study respondents

Coding procedure

To better analyse the interview data, we did manual coding of 25 interview data by additionally recruiting two Chinese research assistants (the first author was also participating in the coding) since the language of transcripts of the interview data is Chinese. Therefore, each post can be coded at least three times to improve the credibility. The Cohen's kappa coefficient = 0.837, a high and stable degree. The coding was conducted by using NVivo 12.

After completing the entry of respondents' personal information, we generate nodes inductively by doing pilot coding study of five randomly selected interview transcripts. Since we focus on the online contestation of the 2018 Shouguang flood, the coding scheme includes the following nodes:

- (1) The role of each respondent in the flood,
- (2) The reasons why the respondents used Weibo in the flood,
- (3) The actions of each respondent on Weibo,
- (4) Crisis information they posted on Weibo during the flood,
- (5) Respondents' review, thoughts, and comments on the governmental response,
- (6) The attitude of each respondent on the governmental response during the flood,
- (7) The future plan of using Weibo of each respondent after the flood.



By using the node sheet, we next used crosstab function of NVivo 12 to explore the relationship between our respondents and different nodes to better generate the image of online contestation and friction points between the government and the public in the 2018 Shouguang flood on Weibo.

Findings

In a state-moderated online environment, crises, coupled with human factors, can prompt the public to contest government information, particularly in allocating blame. To answer **RQ 1**, we examine the friction surrounding the 2018 Shouguang flood by looking at public online contestation of the government information of the flood identifying friction points and illustrating how this friction has impacted public online participation. The presented names of our responders are pseudonyms to preserve their privacy and anonymity.

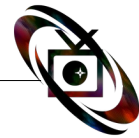
How did the public contest government information on Weibo?

Weibo enabled users to post about the flood from closed quarters or to follow the flood from afar. To draw the attention of the government and other Weibo users, informal crisis information providers emerged—including the users identified in this study as ‘Weipin’, ‘Binqi’, ‘Ming’, ‘Yuhan’, ‘Cong’, ‘Weiba’, ‘Yami’, ‘Jairui’, and ‘Ziju’—and posted about the flood, since Shouguang was their hometown and some of them were directly affected. Considering its huge user base, the respondents believed that Weibo would enable the information to spread to a wide-ranging audience quickly. They posted textual descriptions, photos, and short video clips, and used geotags to verify the authenticity of their posts.

Many respondents expressed trust in the importance of Weibo in online contestation in the 2018 Shouguang flood, presenting that some members of young generation in China have become a group of massive, dynamic, increasingly educated, cosmopolitan and prosperous, and indeed digitally adept (Tyfield, 2018), ‘Binqi’ posted on behalf of her parents, who had never used Weibo. ‘Weipin’, a Shouguang native, searched for ‘Shouguang flood’ and posted on Weibo accordingly. ‘Yuhan’, as an actor, believed that Weibo would facilitate rapid dissemination if his followers reposted the crisis information he supplied, since some of his followers were also actors with many followers. Onlookers ‘Yi’, ‘Penna’, ‘Stone’, ‘Clara’, ‘Jun’, ‘Zhenbang’, ‘Shicheng’, and ‘Tian’ considered Weibo a source of the latest flood information. Finally, since ‘Yi’ and ‘Jun’ were social media editors and ‘Jairui’ and ‘Ziju’ were ‘self-media’ producers, they relied on Weibo to access the latest news, especially its ‘hot searches’ (a function like ‘trending’ on Twitter).

‘Yi’ explained how she actively retrieved flood information:

I heard about the flood from my friends. Then I searched for the flood on Weibo. I use Weibo to follow news because I can get real-time information from multiple sources. During the Shouguang flood, I saw many posts describing the dangerous situations in Shouguang sent by people from flood-stricken areas. I also saw some



videos posted by other users providing descriptive content of the flood, such as interviews with local farmers.

However, amid the online contestation, informal crisis information providers and onlookers frequently faced censorship by the government and Weibo itself, which promotes the friction between the government and the public in such a state-moderated online environment. This is an obvious impediment to building trust between the two parties since the government has issued a straightforward attack and blunt repression. Weibo deleted posts from the informal information providers 'Binqi', 'Weipin', 'Yuhan', 'Weiba', 'Yami', and 'Jairui'. Other users reported being unable to find 'Shouguang flood' under 'hot searches', causing them to question whether the government was suppressing public opinion (i.e. 'Chang', 'Gao', and 'He'). Both the flood-related posters and onlookers then began to actively contest the official narrative, constantly posting and reposting informal information to push 'Shouguang flood' up to 'hot searches'. 'Ming' called on her friends 'Yami' and 'Cong' to repost, and 'Binqi' continued to post, including photos and videos, even after her posts had been deleted.

Onlookers such as 'Yi', 'Penna', 'Stone', 'Clara', 'Chang', 'Che' and 'Xiaotian' reposted flood-related content, although they had no local connections. Many outside users learned about the flood and joined in the collective online campaign. This demonstrates the dynamism of users in online contestation although in a censored platform.

What crisis information was contested (points of friction)?

The result of coding shows that the official information which the public contested online in this case centred on three aspects: the causes of the flood, the descriptions of the flood, and the government's provision of crisis relief (the government's responsibility as primary crisis manager).

On 20 August 2018, China Central Television (CCTV) released its official report on the flood. Reporting from the upper Mi River, the journalist declared that the flood was 'not serious' because it had not affected villages downstream, and the local government had dispatched rescue teams to the affected areas (CCTV, 2018). During the first flood control and relief news conference on 23 August, the Weifang government vaguely attributed the flood to heavy rainfall:

Under the influence of Typhoon Rumbia, heavy rain swept Weifang. Some cities and towns have been flooded. The heavy rainfall led to a rapid rise in the water level at three reservoirs. To prevent the dam from collapsing and for the safety of nearly one million people downstream, the municipal government released the floodwater downstream. However, Shouguang was still seriously flooded (BBC, 2018).

No more details were released in Shouguang, and the public came to vehemently contest flood-related news from CCTV. The informal crisis information providers initially used Weibo to vent their anger at its journalist, who was criticised for having misled the public into believing that the situation in Shouguang was 'not serious' and that it had received adequate resources for rescue.



Informal information posters 'Ming', 'Binqi', 'Ziju', 'Yami', 'Cong', and 'Weiba' provided a version of crisis information vastly different from the official press release. Most of our study respondents, especially those exposed to the flood or whose families or friends had been affected by it, attributed it to a complicated combination of human error and natural causes.

'Ming', a student, lived in a small town near Shouguang. As her town lay on the far side of Shouguang, away from the Mi River, it was not heavily damaged by the flood. However, she read the government news and noticed that it was different from what she had seen and what her relatives had told her. She recalled: 'The reporter said that the upstream flood had no impact on the downstream, we Shouguang people were outraged because the damage was really serious!'

Although 'Cong' was away from Shouguang during the flood, he contributed by drawing attention on Weibo, just like 'Binqi'. Dissatisfied with the CCTV report, he posted: 'The CCTV misled the public by reporting that the upstream reservoir flood did not cause serious damages to the downstream areas. Due to the absence of rescue forces, villagers suffered heavy losses.' 'Cong' explained how he learned about the flood from family and friends living in Shouguang:

Although I am not in Shouguang now, my parents and friends still live there. They told me that it rained heavily for several days before the flood, which caused the upstream reservoir to overflow. It forced the local authority to discharge flood-water from the reservoir, which flooded several villages on both sides of the river ... The flood swept away all crops of my parents' farmland that were about to be harvested.

Was the cause of the flood an act of nature, a human-made crisis, or both? We can probably not get a definitive answer. The devastation the flood caused to Shouguang and the local people was quite evident, however, according to the accounts by the informal crisis information providers.

The public on Weibo also contested whether the government had sent adequate relief to the flooded areas. The Weifang government claimed to have sent a relief team to Shouguang and the Shandong party secretary had arrived there in the evening of 22 August, four days after the flood.

Informal information providers accused the Shandong and central authorities of inaction. 'Binqi', 'Yuhan', and 'Jairui' posted that local firefighters and the police force only reached the affected area on the second day, which was far from sufficient. Other users, such as 'Ming', 'Weiba', and 'Yami', used the '@' function to draw the attention of government departments and state media outlets, pleading with them to dispatch relief. However, they received no response from government user accounts. Other informal information providers also shared their first-hand experiences of the rescue situation. 'Ming' said:

There were rescue teams in some of the worst-hit areas. However, I saw posts from many users with geotags in Shouguang saying that the affected areas were 'cordoned off' and were not allowed to contact the outside world. The rescue does not seem to go well either.



As contestation developed online, the hashtag #ShouguangSelfRescue (寿光自救) started to trend on Weibo, according to ‘Binqi’ and ‘Weiba’. Using Weibo, residents spontaneously self-organised to rescue people trapped due to the flood and deliver relief supplies to affected villages. Governmental rescue teams only arrived a few days later.

The disputes on Weibo showcased divergence and diversity, as the various stakeholders assumed distinct social positions and responsibilities. Most government user accounts on the platform were silent over the previous four days preceding the press conference. Following the news conference mentioned earlier, both government user accounts and traditional media outlets published crisis information on Weibo.

Shouguang natives and informal crisis information providers in general occupied diverse positions as they took part in the online contestation. ‘Weipin’, a Shouguang native, said that ‘because this is my hometown, I definitely have to pay attention to it when something like this happens.’ Based on narratives from their friends and family members, some other informal information providers who did not live in Shouguang posted what they believed to be true. For such posts, familial, friendship, and affective ties played an important role in authenticating and validating the crisis information.

At the same time, it was hard for onlookers to judge the veracity of crisis information. ‘Stone’ defended the government, arguing that it was essential for the authorities to anticipate the public’s reaction and consider whether any given information bits could trigger panic or anger. This Weibo user further explained that the government narrative was necessarily constructed to maintain social stability and mitigate negative social impacts arising from the flood.

As a journalist with over 20 years’ experience, ‘Hui’ also defended the government:

Sometimes, the government releases information more comprehensively to ensure the authenticity, accuracy, and authority of the information and consider social and even international influences. If the process of publishing information is more cautious, it may appear that information release is not timely, late, hidden. The public’s interest in crisis communication is usually from the personal point of view, especially when [their] personal life and property [are] facing problems.

Conversely, onlookers ‘Yi’, ‘Penna’, ‘Clara’, ‘Tian’, ‘Xiaotian’, ‘Baoluo’, and ‘Nai’ indicated that they trusted information from informal providers over the government in most cases, because they believed that the latter might have intended to cover up negligence. Other participants remained cautious in their assessment, due to their fear of misinformation.

In the disaster’s aftermath, onlookers acted upon the narratives they believed. One week after the flood, ‘Tian’ accessed the related crisis information via the hashtag #ShouguangFlood. This user donated supplies and later reflected that ‘I did not think about it too much, and maybe I was just guided by narratives from people claiming to be victims on Weibo.’



Contestation and the future practice of WCC

Public online contestation of government-provided crisis information can influence future public participation in WCC.

Unlike traditional media, Weibo provides the public a widely accessible channel for self-expression, offering diverse means of communication and high levels of interactivity. This enables netizens to become an information source on crises and facilitates the extensive spread of crisis information in general, with friction being likely to arise if the government's version of events fails to satisfy the public. Weibo user 'Nai' specified three elements likely to spark friction: (1) the government conceals information, intentionally or unintentionally, and does not disclose negative information; (2) the government fails to respond in a timely manner to questions from the masses, which leaves room for guesses and doubts on the part of the public; or (3) the public misinterprets government information, having previously consumed rumours.

'Xiaotian', 'Hui', and 'Jun' expressed their belief that the government might conceal information to protect its own image. This is one of the reasons why some members of the public do not trust the Government. Consequently, rescue efforts might be delayed, and victims might release first-hand information on Weibo, resulting in online contestation. 'Penna' added that the slow process of official information release could be a factor; it takes time for the local-level administrations to report on the crisis to the central government, and Weibo users filling in gaps at this time may prompt public dissatisfaction with the government's perceived tardiness.

The impact of this friction-laden relationship upon public participation in WCC is complex. It does inhibit public participation to a certain extent, as user 'Xiaotian' indicated:

'In online contestation, the government's repression may be counterproductive, making people braver. We must have an answer from the government. But it may disappoint people and [cause them to] stop using Weibo, to avoid being punished.'

'Xiaotian' further affirmed that he would act cautiously amid such frictions:

I probably would not repost crisis information from either side because I would not know what the facts are, and I need more information sources and evidence to judge. If my friend or relative... has suffered a crisis, I will ask them about their experience. If the government says something very different, I will join the Weibo army in contesting to make the crisis [appear] on hot search.

Thus, the online action of Weibo users like 'Xiaotian' is flexible since they will adjust their action by judging the situation of the moment; 'Penna', 'Hui', and 'Shicheng' gave similar answers.

Such friction may reduce the public's trust in the government and thus also participation. The friction during the flood crisis decreased the enthusiasm of users 'Weipin', 'Binqi', 'Stone', and 'Nai' for crisis communication, and they may no longer repost government information, and even stop engaging in WCC altogether. 'Baoluo'



noted that the points of friction diluted the ability and actions of the government and the public in crisis response, which may ultimately scupper an adequate response. ‘Hui’ stated that reduced trust in the government due to online contestation would lead to poor command and mobilisation of, and communication with, the public, inhibiting search and rescue. The tensions that build up in crises place tasks and pressures upon both the government and the public exceeding those of straightforward crisis response.

Discussion and conclusion

When government information and crisis response dissatisfy the public, friction appears. For the case of the Shouguang flood, we illustrated critical points of friction and online contestation by analysing interviews with 33 respondents who had used Weibo within the crisis’s context. Although the Chinese government has continued to censor social media, it has neither eliminated the public’s adaptability nor prevented them from developing autonomy in Weibo-based crisis communication (WCC).

Focusing on the Chinese context, we argue that the popular social media platform Sina Weibo has become a powerful channel for netizens to monitor the government’s crisis response. This paper enhances crisis communication research by identifying points of friction between the government and the public, and how these impacts public participation in WCC.

The friction points in WCC under state-moderated online environment

The friction in the 2018 Shouguang flood is provoked by the government’s failure to fulfil its stated goals or responsibilities regarding crisis response triggered a contestation between the government and the public for crisis response resources, power, and discourse throughout the flood. Amid such friction, some members of the public have become informal information providers or onlookers contesting the government narrative. Although this pertains to the practice of networked empowerment, it also impacts on the following online participation of the public on Weibo: the public gains and increases awareness and becomes stronger and sufficiently confident to participate civically on Weibo, urging the government to act. However, some member of the public will be onlookers, keep silent on Weibo and only post what they have seen with their own eyes or heard from relatives and friends due to the regulation and censorship of the government in this online contestation. It is not only a process, but also a result. We highlighted a few points of friction as part of the process.

First, the timing of information release and temporalities of witnessing mediation in the unfolding crisis may differ considerably among stakeholders. For government agencies, the speed of distribution of informal crisis information is hard to control and may counteract their necessarily slower fact-checking and censorship measures. But amid the great urgency to report and publish on crises, the reasons why those in power do not provide adequate response are complex.



For onlookers, the censorship and tangible disappearance of posts are profoundly unsettling and foreground divergent expectations surrounding crisis response.

The second point of friction identified is the description of crises. Friction can easily arise when government information is at odds with what the public has witnessed. As authorities think carefully about what and how they post, they may conceal some types of information. Now, however, the public can share informal crisis information to tell the masses what they know, causing friction to occur more frequently. Onlookers need to rely on their own judgment to choose which side to stand on, which requires skills to distinguish situations rather than blindly following the crowd.

The third point is the scale of responsibility. The government is responsible for crisis coping, and the drive for innovation and growth in regional productivity influenced the engineering of the dams implicated in the 2018 floods. Thus, state engineering of complex socio-technical systems increased risk exposure. While they stood to benefit from these socio-technical systems, the local community experienced greater risks and expected rapid crisis response. Local citizens' responsibilities which may have contributed to the crisis, such as settlements and agricultural use along the riverbanks, were not discussed on Weibo.

The results in this study inspired us to consider two more substantive points regarding frictions between the government and the public. First, differently from crises which are difficult to prevent, such as earthquakes, people tend to expect floods to be more controllable via dam construction, setup of flood warning systems, and resident evacuations. The nature of floods may thus be one of the points making friction between the government and the public in WCC. Second, Weibo and WCC appear to have raised the public's expectations of receiving information instantaneously and supervising government work of crisis response, as part of the digital era, leading to their accusing the government of not responding fast and accurate enough. The public would not have expected this 10 years ago, when they had to wait for news reports from traditional state media.

Networked empowerment between the government and the public in online contestation

Online contestation demonstrates the essential change of government online participation provoked by the networked protest on Weibo and ongoing social supervision of the government's crisis response in WCC. We can see that the government has mitigated the extent of the unchanging blockade and repression of public participation and opinion. From the public's point of view, the government's administration is figuratively embodied in deleting posts and blocking news. This resonates with Gallagher and Miller's (2020) research that the Chinese government will purposefully censor the posts of influential users to prevent public opinion from being guided by their viral spread or influence, expanding the potential for public challenges to authority. But our results demonstrate that although the government did blocks and repression, it adjusted the most unpopular



measures after online protests, widely disseminating information and sending rescue teams to alleviate Shouguang, as well as conducting relevant briefings in the aftermath. In contrast to the tough measures and attitudes of the past, the government has started to respond to the public's questions and concerns after this online contestation, weakening the possibility of an online explosion of public opinion brought about by the protest and pacifying the masses. Such a change can be seen as an ingenious strategy of the government, namely, being more active on Weibo and to establish and maintain a favourable voice and responsible image for the regime (Wang, 2018, Sullivan, 2012). This change could be caused by the raising scale and scope of public online participation which can strive for more attention and assistance to the crisis at hand, motivating the government to limit error and deploy high-quality crisis response. We argue that such collective contestation speaks to how public awareness in China has been awakened and raised through online participation.

Sullivan (2012) states that Weibo users have become a controversial force to participate in discussions of social issues; however, under a rigorous state-moderated online environment, the risks of openly challenging state power should be clear to most members of the public, from a variety of sources, which prevent the complete freedom of users to participate in setting social agenda. Thinking carefully before posting and even self-censoring could be a self-protective strategy of netizens, presenting that the governmental intervention inhibited public online participation (Kaplan and Haenlein, 2010).

Some changes in online participation have been conducted by some specific members of the public during and after online contestation. Informal informants such as 'Binqi', who has remained active on Weibo even after having posts removed, are still in the minority, in arguing, fighting, and advocating for their own interests. Partly agreeing with Nip and Fu's argument that we can see that to some extent, some members of Weibo users are becoming a united force to fight for what they concerned, affecting governmental reactions to specific social issues. However, after protesting online, they expressed their dissatisfaction and disappointment with the government and Weibo platforms for blocking crisis information and suppressing public opinion by not forwarding government information or no longer participating in the WCC. Many others, concerned about potential government censorship, choose to remain silent or leave Weibo altogether, partly because no action will avoid censure as a way around censorship restrictions, and partly, perhaps because the crisis at hand is not closely associated with them, and it is customary for Chinese people to stay away from matters that do not concern them directly.

It should also be noted that some groups participate in the online contestation and express their feelings of anger, their activism was purely situational, and once the issue that stirred them was resolved, the motivation for their opposition to the state also disappeared. Therefore, they will continue to use Weibo to engage in other WCC and maintain a neutral attitude towards the state and Weibo plat-



form. While tending to drive the public away from Weibo, decrease their power and passion, and limit their WCC participation on one hand, friction tends to expand the government's voice, power, and WCC participation on the other, which can trigger deeper friction between these two crisis stakeholder groups.

Trust is significant but hard to build in WCC

Although Tyfield (2018) argues that the current Chinese people are a vibrant, increasingly educated, cosmopolitan, prosperous, and indeed digitally savvy group, the results of this study illustrate that the steady presence of centralised governmental control and reiterated oversight has also made the path to online participation for the Chinese people less than smooth. The ensuing result is that building trust between the two sides is also difficult. On the one hand, it is so because of the ever-expanding power of the government and the ever-improving terms and frameworks of censorship; on the other hand, a public that retreats under censorship, who, in a moment of dilemma between the consequences of censorship on their personal work and life and their contestation for social issues, will mostly choose to remain silent and stay away, with a reduced incentive to participate online, and may be resistant to establishing a closer connection with the government.

We suggest that the government and the public can avoid frictions in future WCC by building mutual trust, a process which would require more effort on the government's part. From the government's perspective, it is crucial to consider how better to construct the discourse of crisis information in WCC, to improve the speed and the scale of releasing crisis information, how to interact with the public, and how to bypass friction with the public in controversial crises, particularly adjust the degree and rationality of censorship and regulation of social media to avoid direct conflict with the public since new forms of communication technology are bound to become commonplace in due course. By being active, responsible crisis manager keeping transparency of information can motivate the public to drop the guard and build trust on the government in WCC.

Meanwhile, the public should improve their ability to screen and discriminate among online information and sources on Weibo. Members of the public are often not experts and may be gullible, unwittingly bringing rumours and misinformation to WCC. The traditional editing mode (i.e. the editors review, control, and edit news coverage before releasing) enables the public to obtain the necessary information to form their own judgments when they participate in political affairs. However, in the social media era, such an author role suitable for modern society can only be formed through learning.

Limitations of this study and directions of future research

Limitations in the present study point to important directions for future research. First, the sample comprised individuals, which does not necessarily reflect the perspectives of others, such as older, lower-income, and less educated population in China, which limits us to explore how did these groups assess and response



to government actions in crises, how and whether they would engage in crisis communication and contestation, both online and offline, and to what extent do social networks influence their opinions and actions in crises. This study also does not reflect such as government user accounts. As these users have many followers and possess influential, symbolic status on Weibo, their views are often based on their social roles. Crisis communication researchers could explore further complex friction, reactions, and online participation from diverse types of population with different characteristics and also the government's perspective, to enrich the data and reduce the risk of bias or quality loss from the over-representation of any given background and thus better understand influences on online participation and decisions of different types of population in WCC in China.

The second limitation lies in our selection of a single Chinese social media platform, namely Weibo, for our case study. We chose the platform as a means to gauge friction between the government and the public because Weibo is widely accessible, creating an open channel for crisis communication. Future studies could helpfully examine the characteristics of other platforms (e.g. WeChat and Tik Tok), how frictions between two parties arise on them, and whether the present findings are applicable across different social media platforms. The expansion of studies on social media platforms is bound to provide comprehensive insights, considering that each social network has unique features and functionalities, which may provide further opportunities for social-media-based crisis communication in China in the future.

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References | Список литературы

- Alexander, D. E. (2014). Social media in disaster risk reduction and crisis management. *Science and Engineering Ethics*, 20, 717–733. <https://doi.org/10.1007/s11948-013-9502-z>
- Beaudoin, C. E. (2007). SARS news coverage and its determinants in China and the US. *International Communication Gazette*, 69(6), 509–524. <https://doi.org/10.1177/1748048507082839>
- Benney, J., & Xu, J. (2018). The decline of Sina Weibo: A technological, political and market analysis. In K. Eills, M. Kent, & J. Xu (Eds.), *Chinese Social Media: Social, Cultural and Political Implications* (pp. 221–235). Routledge. <https://doi.org/10.4324/9781315160214-21>
- Chatfield, A. T., & Reddick, C. G. (2018). All hands-on deck to tweet# sandy: Networked governance of citizen coproduction in turbulent times. *Government Information Quarterly*, 35(2), 259–272. <https://doi.org/10.1016/j.giq.2017.09.004>



- Cheng, Y. (2020). The social-mediated crisis communication research: Revisiting dialogue between organizations and publics in crises of China. *Public Relations Review*, 46(1), 101769. <https://doi.org/10.1016/j.pubrev.2019.04.003>
- China Country Report. (2019). Freedom House. <https://freedomhouse.org/report/freedom-world/2019/china>
- Cunningham, J. A., Menter, M., & O’Kane, C. (2018). Value Creation in the Quadruple Helix: A Micro Level Conceptual Model of Principal Investigators as Value Creators. *R&D Management*, 48(1), 136–147. <https://doi.org/10.1111/radm.12310>
- Feldman, M. S., & Khademanian, A. M. (2007). The Role of the Public Manager in Inclusion: Creating Communities of Participation. *Governance*, 20, 305–324. <https://doi.org/10.1111/j.1468-0491.2007.00358.x>
- Floods hit Shouguang, Shandong province, China’s “hometown of vegetables”. The public questioned the man-made factor (洪灾冲击中国“蔬菜之乡”山东寿光 公众质疑人祸因素). (2018). BBC. <https://www.bbc.com/zhongwen/simp/chinese-news-45327428> (In Chinese).
- Gallagher, M., & Miller, B. (2020). Who not what: The logic of China’s information control strategy. *China Quarterly*, 1–26. <https://doi.org/10.1017/S0305741021000345>
- Gambetta, D. (1988). Can we trust trust? In D. Gambetta (Ed.), *Trust: Making and Breaking Cooperative Relations* (pp. 213–237). Blackwell.
- Gueorguiev, D., Shao, L., & Crabtree, C. (2017). *Blurring the Lines: Uncertainty and Self-Censorship in China*. <https://doi.org/10.2139/ssrn.3075481>
- Hsu, C. (2011). Even further beyond civil society: The rise of Internet-oriented Chinese NGOs. *Journal of Civil Society*, 7(1), 123–127. <https://doi.org/10.1080/17448689.2011.553468>
- Johnson, T. (2013). The politics of waste incineration in Beijing: The limits of a top-down approach? *Journal of Environmental Policy and Planning*, 15(1), 109–128. <https://doi.org/10.1080/1523908X.2012.752183>
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53, 59–68. <https://doi.org/10.1016/j.bushor.2009.09.003>
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *The Academy of Management Review*, 20(3), 709–734. <https://doi.org/10.2307/258792>
- Medaglia, R., & Zhu, D. (2017). Public deliberation on government-managed social media: A study on Weibo users in China. *Government Information Quarterly*, 34(3), 533–544. <https://doi.org/10.1016/j.giq.2017.05.003>
- Nip, J. Y., & Fu, K. W. (2016). Challenging official propaganda? Public opinion leaders on Sina Weibo. *The China Quarterly*, 225, 122–144. <https://doi.org/10.1017/S0305741015001654>
- Noesselt, N. (2014). Microblogs and the adaptation of the Chinese party-state’s governance strategy. *Governance*, 27(3), 449–468. <https://doi.org/10.1111/gove.12045>
- Palen, L., Vieweg, S., Liu, S., & Hughes, A. (2009). Crisis in a networked world: Features of computer mediated communication. *Social Science Computing Review*, 27(4), 467–480. <https://doi.org/10.1177/0894439309332302>
- Popa, E. O., Blok, V., & Wesselink, R. (2020). A processual approach to friction in quadruple helix collaborations. *Science and Public Policy*, 47(6), 876–889. <https://doi.org/10.1093/scipol/scaa054>



- Purohit, H., Castillo, C., Diaz, F., Sheth, A., & Meier, P. (2014). Emergency-relief coordination on social media: Automatically matching resource requests and offers. *First Monday*, 19. <https://doi.org/10.5210/fm.v19i1.4848>
- Qin, B., Strömberg, D., & Wu, Y. (2017). Why Does China Allow Freer Social Media? Protests versus Surveillance and Propaganda. *Journal of Economic Perspectives*, 31(1), 117–140. <https://doi.org/10.1257/jep.31.1.117>
- Rauchfleisch, A., & Schäfer, M. S. (2015). Multiple public spheres of Weibo: A typology of forms and potentials of online public spheres in China. *Information, Communication & Society*, 18(2), 139–155. <https://doi.org/10.1080/1369118X.2014.940364>
- Roberts, N. (2004). Public deliberation in an age of direct citizen participation. *The American Review of Public Administration*, 34(4), 315–353. <https://doi.org/10.1177/0275074004269288>
- Schlaeger, J., & Jiang, M. (2014). Official microblogging and social management by local governments in China. *China Information*, 28(2), 189–213. <https://doi.org/10.1177/0920203X14533901>
- Sullivan, J. (2013). China's Weibo: Is faster different? *New Media and Society*, 16(1), 24–37. <https://doi.org/10.1177/1461444812472966>
- Tong, J., & Zuo, L. (2014). Weibo communication and government legitimacy in China: A computer-assisted analysis of Weibo messages on two 'mass incidents'. *Information, Communication & Society*, 17(1), 66–85. <https://doi.org/10.1080/1369118X.2013.839730>
- Tricker, R. (1988). Information resource management—A cross-cultural perspective. *Information and Management*, 15(1), 37–46. [https://doi.org/10.1016/0378-7206\(88\)90028-6](https://doi.org/10.1016/0378-7206(88)90028-6)
- Tyfield, D. (2018). *Liberalism 2.0 and the rise of China: Global crisis, innovation and urban mobility* (Routledge advances in sociology). Routledge. <https://doi.org/10.4324/9781315735917>
- Van den Berg, A. (2021). Participation in Online Platforms: Examining Variations in Intention to Participate across Citizens from Diverse Sociodemographic Groups. *Perspectives on Public Management and Governance*, 4(3), 259–276. <https://doi.org/10.1093/ppmgov/gvab013>
- Van den Berg, A., Giest, S. N., Groeneveld, S. M., & Kraaij, W. (2020). Inclusivity in online platforms: Recruitment strategies for improving participation of diverse sociodemographic groups. *Public Administration Review*, 80(6), 989–1000. <https://doi.org/10.1111/puar.13215>
- Wang, Q. (2018). Does the Chinese government engage in online public debates? A case study of political communications around the building of an oil refinery in Kunming, China. *Global Media and China*, 3(3), 158–176. <https://doi.org/10.1177/2059436418804274>
- Xiao, Q. (2011). The battle for the Chinese internet. *Journal of Democracy*, 22(2), 47–61. <https://doi.org/10.1353/jod.2011.0020>
- Xinhua. (2016). *Investigation report on the “8-12” dangerous goods warehouse accident at Tianjin Port released* (天津港“8·12”瑞海公司危险品仓库特别重大火灾爆炸事故调查报告公布). http://www.xinhuanet.com/politics/2016-02/05/c_1118005206.htm (In Chinese).
- Yang, G. (2003). The Internet and Civil Society in China: A Preliminary Assessment. *Journal of Contemporary China*, 12(36), 453–475. <https://doi.org/10.1080/10670560305471>
- Zheng, Y., & Wu, G. (2005). Information technology, public space, and collective action in China. *Comparative Political Studies*, 38(5), 507–536. <https://doi.org/10.1177/0010414004273505>