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Online firestorms in social media: Comparative research between China Weibo and USA Twitter

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ABSTRACT

This study explores unique differences between China Weibo and the United States (US) Twitter in terms of how users carry out online firestorms. This exploration is carried out through a quantitative content analysis of top trending words and associated top tweets over a six-month period on the social media platforms. Our findings suggest that the threshold for considering online reaction to be an online firestorm is significantly higher in China than in the US. The study also suggests that in carrying out online firestorms, US users are much more apt to use mockery and political or social opinion expression against targets than their Chinese counterparts; they are also more apt to actively mobilize collective actions against such targets. Chinese users rarely target governments or politics, though they actively pick out corporations and media/entertainment-related organizations. In the US, on the other hand, it is in fact the government and politics that users target extensively. What is more common on US Twitter than on China Weibo are online firestorms inflicting reputational damage on the ability-related dimension of a target (i.e., ability online firestorms). And what is more common on China Weibo than on US Twitter are firestorms that inflict damage on the social responsibility or ethics-related dimension of the target (i.e., Social Responsibility online firestorms).

1. Introduction

In April 2017, United Airlines was involved in a public relations disaster that hurt them financially and marred their reputation (Wile, 2017). It began with the posting of a disturbing video onto Twitter; the video displayed a physical confrontation between airport security officers and an Asian-American passenger on the Express Flight 3411. When people saw the screaming passenger being violently dragged off the plane, they were outraged (Victor & Stevens, 2017). In less than a day, the video footage was shared more than 87,000 times and had more than 6.8 million views (Chicago Tribune, 2017). The public made a concerted effort to post and share the incident on social media. People expressed their anger on Twitter using hashtags that often included the company's name or boycott-related terms (e.g., #BoycottUnited). As a result, the incident received widespread attention and for several days was a trending topic on Twitter (Wile, 2017). The video also sparked anger in China, where accusations of racism were added to the controversy, and led United Airlines to quickly become the focus of online condemnation

and boycotts (Bachman & Lin, 2017). Viewed more than 200 million times on Weibo, the Chinese equivalent of Twitter, the video (with the hashtag #UnitedForcesPassengerOffPlane) was the top trending topic (PRI, 2017).

Researchers have referred to such focused online criticism—the “sudden discharge of large quantities of messages containing negative word-of-mouth and complaint behavior”—as an “online firestorm” (Pfeffer, Zorbach, & Carley, 2014, p. 118). Online firestorms—facilitated by mainstream media—gather public attention and can develop into a serious reputational crisis (Einwiller, Viererbl, & Himmelreich, 2017) for a company, as it did for United. Recent scholarly attention on online firestorms has investigated their negative impact on reputations (e.g., Delgado-Ballester, López-López, & Palazón, 2019), management aspects (e.g., Pfeffer et al., 2014), and characteristics of news coverage on online firestorms (Einwiller et al., 2017). However, there have been few studies investigating the cultural aspects of online firestorms. Crisis scholars have raised concerns over a lack of cultural insights into crisis management and called for more culturally and

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contextually sensitive perspectives in crisis communication research (e. g., Avery, Lariscy, Kim, & Hocke, 2010). Given that online firestorms pose reputational threats to organizations and individuals (Pfeffer et al., 2014), this paper attempts to fill this void by answering such calls.

In this paper, we explore the characteristics and nature of online firestorms, a relatively new phenomenon. To gain more knowledge of the phenomenon in the US and China (CN), a research team conducted an extensive content analysis of the two countries' most popular microblogging sites—Twitter and Weibo. Top trending keywords provided by these social media platforms are part of their system cues that share the aggregates of individual users' communication behaviors on varying social events and issues (Minocher, 2019). When users post their opinions on a given event or issue with certain keywords or hashtags attached, they are contributing to collective accumulations of a certain social claim or opinion with which the keywords or hashtags are linked (Papacharissi, 2015). This is the process of individual communication engagement behaviors turning into more systematic and connected social behaviors (Minocher, 2019). This process gives rise to more frequent online firestorms. Thus we analyzed top trending keywords provided by Twitter and Weibo as part of their system-generated cues for the phenomenon of online firestorm in addition to associated top tweets. We analyzed more than 7000 top trending keywords on each platform over a six-month span and the top five tweets featured with each top trending keyword. In this manner, we attempted to gain more understanding on the potential targets and the crisis type of online criticism, as well as similarities and differences between the two countries with respect to such criticism.

With this research, we contribute to the discussion about the landscape of online firestorms such as what types of organizations or individuals become the targets of public condemnation, as well as the scope of such targets, the focus of condemnation, and which social issues are prioritized (Einwiller et al., 2017; Pfeffer et al., 2014). We also shed light on the cultural differences in online firestorms from diverse countries (Avery et al., 2010). Regarding the online firestorms that occur in the US and China, we find in almost every aspect significant cultural differences. These include the scope of the target (government/politics vs. business), the social problems that are prioritized (racism vs. corruption), and the focus of attribution (individuals vs. group/organizations). Next, we outline theoretical backgrounds and frameworks to propose specific research questions and hypotheses.

2. Literature review

2.1. Social media and online firestorm

Social media has certainly been a breeding ground for this relatively new phenomenon of online firestorms due to several of its unique characteristics. Technological affordance and networked communication infrastructure of social media have facilitated information dissemination and sharing among decentralized individuals (Bennett & Segerberg, 2012). Social media has become a main guiding reference of public opinion climates on various social events or issues; it achieves this by providing system-generated consensus information cues such as top trending keywords and most-liked or -shared postings (Dvir-Gvirsman, 2019; Kim, Rim, & Sung, 2019). These system-generated consensus cues of social media ensure high public visibility, contribute to fast-forming public opinion (Dvir-Gvirsman, 2019; Kim et al., 2019), and certainly help expedite the birth of online firestorms (Pfeffer et al., 2014). While social media provides users with an abundance of information and system-generated heuristic cues, it also leads to selective exposure of information (Messing & Westwood, 2014). Because of a process of friend selection, users who share similar views are more likely to be connected on social media and, through a process of social influence, they tend to become more alike in opinions (Albarracin & Shavitt, 2018). The filtered information through selective exposure reassures and validates users' existing opinions or moral concerns. These reassured like-minded

opinions are more likely to be used as a guiding reference to estimate the general opinion climate (Dvir-Gvirsman, Garrett, & Tsfati, 2018). By overestimating the amount of like-minded opinion on a given issue—all based on filtered information and system-generated heuristic cues—people may form a biased estimation of public opinion climate (Dvir-Gvirsman et al., 2018; Johnen, Jungblut, & Ziegele, 2018). These biased estimations make users more likely to voice their opinions and express indignation over a given issue on social media. As a result, the public is more likely to see a given issue as a crisis (Johnen et al., 2018).

According to the spiral of silence theory (Noelle-Neumann, 1974), people are more likely to voice their opinion publicly when their opinion is well aligned with prevailing opinion climates. In a similar vein, social influence of conformity theory (Turner, 1991) suggests that when people try to determine what behavior is appropriate in a certain situation, they refer to the behavior of others, and endeavor to conform with the majority. Thus, when people are exposed to system-generated consensus cues and selective information related to seemingly problematic events on social media, they use such cues as a guiding reference of the general opinion climate and may try to conform with the majority (Dvir-Gvirsman et al., 2018). In this process, people tend to form a biased statistical sense against the problematic events (Dvir-Gvirsman et al., 2018; Ji & Kim, 2020). When people observe (through system-generated cues filtered by selective exposure) a greater number of posts that are even more negative, they tend to overestimate the adverse impacts of the events (Ji & Kim, 2020; Johnen et al., 2018). Hence, they are more likely to voice similar negative opinions about it on social media. This explains how people join social media to express negativity toward a seemingly problematic event. This process gives rise to online firestorms.

Moreover, due to the structural or functional limitations of some social media platforms (i.e., word limits), people tend to post shorter and emotionally charged content to attract more attention (Stieglitz & Dang-Xuan, 2013). Lacking contextual clues, users are likely to interpret the information based on their presuppositions, leading online discussions on these microblogging sites to be one-sided and lacking a diversity of perspectives (Dvir-Gvirsman et al., 2018). Besides, compared to face to face communication, the anonymity of social media permits people to care less about the social consequences of online aggressive behaviors, which are often manifested in outcries of indignation (Zimmerman & Ybarra, 2016). All of these characteristics contribute to the new phenomenon of online firestorms.

An online firestorm has been defined as “the sudden discharge of large quantities of negative word-of-mouth and complaint behavior against a person, company, or group in social media networks” (Pfeffer et al., 2014, p. 118). Building on the categorization of moral panics, prior research has identified in online firestorms several distinctive characteristics (Johnen et al., 2018). These include the following: (1) specificity in topic, concern, or claim, (2) high hostility, (3) high disproportionality (or exaggerated concerns), (4) high consensus with low diversity in opinions, and (5) volatility (quick emergence and subsidence). Since online firestorms are highly visible and generally associated with user indignation, they are detrimental to the reputation of targeted persons, organizations, or groups (Herhausen, Ludwig, Grewal, Wulf, & Schoegel, 2019; Pfeffer et al., 2014). To those being targeted, online firestorms can be either a para-crisis or a full-blown crisis.

In fact, the para-crisis is a concept closely related to online firestorms. Functioning like a prodrome of an actual crisis, a para-crisis, according to Coombs and Holladay (2012) is “a publicly visible crisis threat that charges an organization with irresponsible or unethical behavior” (p. 409). The authors emphasized that a para-crisis often manifests during the period of crisis prevention, and often with organizations that behave irresponsibly or unethically. An online firestorm is similar to the concept of para-crisis, though the latter has several distinctive aspects. A para-crisis is characterized by the observable nature of public discussions covering the para-crisis event, assisted by Internet-mediated communication. However, while the Internet-mediated communication is an essential part of the online

firestorm, it is not for the para-crisis. Second, online firestorms by their nature call for a sudden accumulation and declination of negative online responses from the public while the para-crisis does not (Coombs & Holladay, 2012; Pfeffer et al., 2014). Third, in its formative stage, a para-crisis emerges before a real or full-blown crisis, often associated with the pre-crisis stage such as crisis prevention (Coombs & Holladay, 2012). An online firestorm, however, has a more flexible position, and could happen in pre-crisis, during-crisis, or post-crisis stages. Thus, online firestorm can be associated with a para-crisis in the pre-crisis, a full-blown crisis in the during-crisis, or a lingering crisis in the post-crisis stages.

Some of the extant studies have investigated the phenomenon from a macro-level, focusing on how negative WOM can lead to online firestorms and their detrimental effects on a brand's evaluation and reputation (e.g., Delgado-Ballester et al., 2019). Some focused on cross-media dynamics of online firestorms and investigated the relationship between mainstream media and online firestorm discussions (Einwiller et al., 2017). An "echoverse" effect between the contents of the two media platforms was identified (Hewett, Rand, Rust, & van Heerde, 2016), but it is hard to conclude whether online firestorms lead to mainstream media coverage or the other way around as each case may differ. Other studies have adopted a practical perspective and paid more attention to the detection, prevention, and mitigation of online firestorms (Herhausen et al., 2019; Pfeffer et al., 2014), arguing that online firestorms could be mitigated by counter-positive WOM from loyal followers. Online firestorms are further advanced by another thread of studies adopting micro perspectives (Johnen et al., 2018; Rost, Stahel, & Frey, 2016). These studies examined the incentives for individuals to participate in online firestorms, and social cognition, emotion arousal and especially moral norms violation are substantially discussed as motivation factors of individual participation (Johnen et al., 2018; Rost et al., 2016). In an exploratory attempt to investigate the landscape of online firestorms, we ask the following questions.

RQ1. (a) What are the general characteristics of top trending keywords associated with online firestorms, and (b) are there any differences between the US Twitter and CN Weibo?

RQ2. (a) What are the main social concerns/moral issues that are discussed in online firestorms, and (b) are there any differences between the US Twitter and CN Weibo?

2.2. Classification of online firestorm type

What has been scarcely studied is how online firestorm types are classified (e.g., Einwiller et al., 2017). Given that online firestorms evolve around varying types of crises and social/political issues, one might find insights into its classification by examining prior crisis communication research (Coombs, 2007; Kim, 2014; Sohn & Lariscy, 2015). A dominant stream of crisis research based on situational crisis communication theory (SCCT) classified crisis into three types—victim, accidental, and preventable crises (Coombs, 2007). This classification is based on varying degrees of public attributions of crisis responsibility to the target (accused) in each crisis type. In a victim crisis type, the target is the victim of the crisis and thus bears, in the eyes of the public, the lowest levels of crisis responsibility. Examples of victim crisis type are natural disasters or rumors. The second type, accidental crises are when crises occur due to the unintentional actions of a target, who thus bears a moderate level crisis responsibility attribution. An example of this type is a technical failure. The last type, preventable crises, occur because of human-error incidents or organizational misdeeds. These have the highest levels of crisis responsibility attributed by the public and lead to the most severe reputational threat (Coombs, 2007).

Another stream of crisis research has employed a CA-CSR crisis typology to classify varying crisis types based on the corporate attributes directly inflicted by a crisis (Kim, 2014; Sohn & Lariscy, 2015). The CA-CSR crisis typology originates from a CA-CSR associations

framework in corporate reputation literature (Brown & Dacin, 1997; Kim, 2011; Kim & Rader, 2010). Corporate associations, which are consumers' memory-based psychological associations, evaluations, and beliefs about a company, have two dimensions—corporate ability (CA) and corporate social responsibility (CSR) associations (Kim, 2011). CA associations relate to a company's competence and capability in the product/service domain; CSR associations relate to a company's commitment to ethics, societal good, and well-being (Kim, 2011). Adopting this typology, the CA-CSR crisis type is classified depending on the company's corporate reputational dimension being threatened or damaged by the crisis. Thus, a CA crisis refers to an adverse event that threatens a company's CA reputational dimension, i.e., its ability to provide high quality products and services. A CSR crisis indicates a negative event that threatens a company's CSR reputational dimension, i.e., its legitimacy as a responsible citizen (Kim, 2014; Sohn & Lariscy, 2015).

Although the CA-CSR crisis typology concerns only corporate crises, this Ability-Social responsibility typology can be easily extended to other types of organizations or a person/group depending on the target's attributes or reputational dimension affected by a crisis. If the target's ability-related attributes and reputation are afflicted by an online firestorm, then it can be classified as an ability-online firestorm. When the target's social responsibility- or ethics-related attributes and reputation are afflicted by the online firestorm, it can be categorized as a Social Responsibility-online firestorm. A recent study that examined online firestorms reported in German-language print media classified them, depending on triggering stimulants, into four categories: 1) perceived incompetence (i.e., job-related), (2) perceived market misconduct, (3) perceived moral conduct (e.g., racism, employee rights), and (4) perceived violation of honor or reputation (Einwiller et al., 2017). Perceived incompetence and market misconduct can be categorized as an Ability-online firestorm; perceived moral misconduct can be categorized as a Social responsibility-online firestorm. Perceived violation of honor or reputation, however, should be categorized more specifically, as this classification does not permit discernment of which reputation dimension has been afflicted; it can be categorized as either an Ability or Responsibility online firestorm. This study thus argues that the application of SCCT-based crisis type (Coombs, 2007) and Ability-Responsibility-based crisis typology (Kim, 2014; Sohn & Lariscy, 2015) provide useful insights into classification of this new phenomenon. Since little previous knowledge exists for this, the study raises the following research questions.

RQ3. Among Ability and Social Responsibility online firestorms, (a) which type of online firestorm is more prevalent on US Twitter and CN Weibo, and (b) can differences between types be discerned in the two platforms?

RQ4. Among SCCT crisis type (i.e., victim, accident, and preventable), (a) which type of online firestorm is more prevalent on US Twitter and CN Weibo, (b) can differences between types be discerned in the two platforms?

2.3. Cultural factors and Chinese internet censorship

Cultural psychologists have long suggested that the extent of cultural differences between North Americans and East Asians is profound (Chiu, Morris, Hong, & Menon, 2000; Menon, Morris, Chiu, & Hong, 1999). Differences in ways of thinking and attribution process among people from the US and China could be applicable to examine culturally bound characteristics of online firestorms. Cultural psychology research claims that East Asians possess a strong tendency to engage in holistic and contextualized reasoning and external attributions based on situational attributes (Choi, Nisbett, & Norenzayan, 1999). In contrast, North Americans have a tendency to engage in analytic and focal object-focused reasoning and dispositional or focal object-focused attributions (Menon et al., 1999). Due to the differences in ways of

thinking, East Asians focus more on systematic contexts such as social institutions or the relationships between a focal object (i.e., individuals) and its surrounding environment. Americans, in contrast, focus more on a focal object and consider an individual as a free, autonomous, and goal-directed agent (Chiu et al., 2000; Menon et al., 1999). In terms of the locus of attribution, since East Asians focus more on social institutions such as a community, group, organizations as social agents rather than individuals, they tend to attribute one's behavior to social agents' responsibilities (Morris & Peng, 1994). North Americans, though, tend to attribute one's behavior to one's own dispositional problems rather than the problems of social agents, external environments, or situational constraints (Menon et al., 1999; Morris & Peng, 1994). Thus, in times of online firestorms, Americans may attribute a target object's wrongdoings to the object's dispositional problems rather than a group or surrounding situation. Chinese may attribute those same wrongdoings more to social actors for crisis responsibility (e.g., an organization's responsibility rather than an individual).

Several studies have provided the empirical evidence of this cultural influence on people's causal attributions. Menon et al. (1999) showed that East Asians focus more on collective-level agents such as groups and organizations than North Americans when explaining a negative outcome caused by an individual's action. Similarly, Chiu et al. (2000) examined the locus of attributions of American and Hong Kong students and found that for negative outcomes Americans blamed the individual more, and Hong Kong students blamed the group more. Thus, this study proposes the following hypothesis related to the focal object targeted by online firestorms.

H1. Individuals are more often targeted by online firestorms on US Twitter than CN Weibo, whereas organizations are more often targeted on CN Weibo than US Twitter.

Some differences between the two countries may also be related to Internet censorship and freedom of speech. The U.S. provides the most robust protections for free speech online (Yu, 2018). In contrast, the Chinese government strictly censors online content that represents, reinforces, or spurs social mobilization (King, Pan, & Roberts, 2014). The Chinese Internet law clearly prohibits content harming the unity of the nation, and this allows the Chinese government to limit free speech for the purposes of ideological, political, and national security (Authors, in press; Einwiller & Kim, 2020; Yu, 2018). By implementing dominance over Internet service providers, the Chinese government gains the power of censoring online content (Pan, 2017). In addition, Chinese online platform organizations such as Weibo or Baidu (the Chinese equivalent of America's Google) proactively block content related to government administration or politics using artificial intelligence machine learning and filtering techniques as they consider any politically sensitive posts harmful (Einwiller & Kim, 2020). Although China heavily censors political or government-related online content, social media has also empowered Chinese publics to make their voices heard, through consumer online activism, in the domain of businesses (Yang, 2014). Thus, this study proposes the following difference between the two countries.

H2. CN Weibo is home to fewer online firestorms involving government administrations and politics than is US Twitter.

3. Method

3.1. Sample and coding procedure

We collected the Top 20 daily trending keywords both from Twitter

and Weibo for the six-month period from March to August 2019. Each platform provides, on a daily basis, a list of the top trending keywords. This resulted in a total of 7240 top trending keywords¹ (3620 top trending words for each platform). From the raw data, we removed the trending words that were not relevant to online firestorms. For example, trending words such as #PrideMonth were among the Top 20 daily trending words but were excluded since they were not associated with any negative online discussions of a target. In addition, we examined the top five tweets of users featured with each top trending keyword to understand the nature of online firestorms. This resulted in a total of 989 online firestorm-related trending keywords (Twitter = 498; Weibo = 491 cases) and 4945 tweets (Twitter = 2490; Weibo = 2455).

The coding procedure had two main parts— (1) the analysis of the trending keyword itself and (2) the analysis of the top tweets associated with the trending keyword to understand each online firestorm's underlying discussions or issues. To secure systematic categorization and coding of the data, we developed a codebook based on previous literature on online firestorm, online activism, and crisis research (e.g., Coombs, 2007; Einwiller et al., 2017; Johnen et al., 2018; Kim, 2014; Minocher, 2019), and the codebook was extended based on the data when the data suggested additional categories (see Appendix A for our coding sheet). We followed the procedure of quantitative content analysis suggested by Neuendorf (2002). The coding results were tested for intercoder-reliability (Krippendorff, 2004). At least two coders who were fluent in the primary language of the country coded approximately 20% of the top trending keywords and their associated top tweets for the tests of intercoder reliability. The intercoder-reliability tests were satisfactory for all items, ranging from .80 to 1.00 for both countries' data (Krippendorff, 2004), and the remainder of the sample was coded.

For the basic characteristics of each top trending keyword, we coded volume, that is, Tweet/Weibo posting count: both platforms provided how many times online users mentioned and shared each keyword on the platforms as part of their system cues. In addition, we listed the dates they appeared. To capture the nature of the top keyword itself, the coders assessed the presence of mockery, political expression, social expression, call for actions, specific targets mentioned in the keyword drawing on the previous literature (Johnen et al., 2018; Minocher, 2019). Presence of mockery was coded when there was evident in the word ridicule of a person or an organization (e.g., #TrumpIsARat). Presence of a public call to action was coded when collective action was encouraged within the trending word (e.g., #BoycottWalmart). The presence of opinion expression on political issues (e.g., #EndGunViolenceNOW) as well as on social issues (e.g., #SayNoToRacism) was also coded. The target of the online firestorm was coded by assessing the specific names mentioned in the keyword as the main target of the online firestorm: (1) Organization, (2) Individuals, (3) Region (i.e., location, country). Then, following previous research on online firestorms (e.g., Einwiller et al., 2017), the three main targets were examined and coded into more specific categories (i.e., corporation, government administration, politics, non-profit, media, foreign nation). For corporations, we additionally coded whether the corporations being targeted in the trending keywords were domestic or foreign.

To understand in greater detail the online firestorm targets, possible social issues/moral concerns, and crisis types associated with the online firestorm, coders examined the top five tweets associated with the trending word in addition to examining the trending word itself. The target areas were assessed for their presence based on the literature: Online firestorms in Business arena (corporate-related), Government administration/policy, Politics, Non-profits, Media/entertainment, and Public emergency/safety area. For the Business arena target, we also

¹ For Twitter, the top daily ranking trending keywords lists were purchased from Github.com, while a web crawler programmed by the researchers using Python was used to collect the data for the Weibo's top daily trending keywords list.

coded whether involved corporations were domestic or foreign. Social issues or moral concerns associated with the online firestorm were assessed and all issues/concerns that seemed relevant to the online firestorm were coded as present. Looking at the relevant social/moral issues identified in the literature (e.g., Einwiller et al., 2017), researchers assessed the following 16: (1) Illegal activities, (2) Freedom of speech, (3) Sexual harassment/crime, (4) Consumer information leakage, (5) Environmental, (6) Public safety/health, (7) Child abuse/neglect, (8) Racism, (9) Immigration, (10) Gender, (11) Employee rights, (12) LGBT rights, (13) Animal rights, (14) Political contribution, (15) International relations, and (16) Media credibility.

The classifications of online firestorm were assessed applying SCCT's crisis type (Coombs, 2007) as well as the Ability-Responsibility typology (Brown & Dacin, 1997; Kim, 2011). When the in-crisis party was also a victim of the event, it was coded victim type; when the negative event was seen as largely uncontrollable by the in-crisis party, it was coded accidental; when the in-crisis party knowingly engaged in actions that led to the negative event, it was coded preventable. When the online firestorm seemed to inflict reputational damages in the target's ability-related attributes (i.e., expertise/competence, price for product/service when the target was corporations, quality of performance, management, and mistreatment of stakeholders), it was assessed as an ability-online firestorm. When the online firestorm seemed to inflict reputational damages in the target's social responsibility and ethics-related attributes (i.e., socially responsible in environmental commitment, caring for community, social diversity commitment, ethical responsibility), it was assessed as a social responsibility-online firestorm.

4. Results

RQ1 asked about the general characteristics of trending keywords and possible differences between the US Twitter and CN Weibo. Each top trending keyword in our sample was retweeted or shared on average 1,424,293 times with other users (volume max: 9,363,729, min: 9,999, SD = 1,531,161.38). To be considered top trending, however, keywords on Weibo had to be mentioned significantly more than keywords on Twitter ($t(573.84) = -53.96, p < .001$). For Twitter, the trending keywords were mentioned on average 109,077 times (volume max = 3,514,514, min = 9,999, SD = 308,502.17). On Weibo, the trending keywords were retweeted on average 2,768,260 (volume max = 9,363,729, min = 1,291,412, SD = 1,043,801.16) which is approximately 20 times more than Twitter. This indicates that in order to rank the top 20 keywords on the platforms, the frequency of the keywords being shared by online users (i.e., volume) have to be much larger on Weibo than on Twitter. When examining the semantics of the trending words, the results revealed that the trending keywords of Twitter showed significantly more points of views or judgments compared to the trending words of CN Weibo. For example, mockery was observed significantly more among the trending keywords on US Twitter ($\chi^2(1, N = 989) = 35.488, p < .001$) than on China Weibo.

While 9.04 % of trending words on Twitter ($N = 45$) conveyed mockery, only 0.81 % on Weibo ($N = 4$) conveyed it (see Fig. 1).

Trending keywords on Twitter also contained significantly more words that called for public actions ($\chi^2(1, N = 989) = 62.594, p < .001$). While 13.05 % of trending words on Twitter ($N = 65$) called for collective actions encouraging protests or social movements (i.e., #untwitter8chan), less than 1 % (0.41 %, $N = 2$) on Weibo did. Similarly, trending keywords on Twitter contained more keywords that expressed opinions on political ($\chi^2(1, N = 989) = 43.087, p < .001$) and social issues ($\chi^2(1, N = 989) = 24.192, p < .001$). Whereas 15.46 % ($N = 77$) of trending words on Twitter concerned political issues (e.g., #AOC-Resign) and 6.83 % ($N = 34$) of social issues (e.g., #WakeUpToRacism), only 3.26 % ($N = 16$) and 1.02 % ($N = 4$) of trending words on China did so.

RQ2 asked about the main social issues discussed in online firestorms on the two platforms. The top five social issues discussed in online firestorms on Twitter were Racism (e.g., Kaepernick's protest against racial inequality; $N = 88, 17.7\%$), Political Stance (e.g., Mueller investigation; $N = 71, 14.3\%$), Illegal Activities (e.g., college admissions scandal; $N = 64, 12.9\%$), Public Safety (e.g., food safety; $N = 40, 8.0\%$), and Discrimination (e.g., protests against ICE raids; $N = 31, 6.2\%$). Illegal activities (e.g., corruption/bribe, teenager kidnapping, $N = 163, 33.2\%$) and Political stance (e.g., China-US trade war, against HK protest, $N = 89, 18.1\%$) were also the most discussed on China Weibo. They were followed by Public safety ($N = 76, 15.5\%$), Sexual Harassment/Sex crime (e.g., rape, $N = 57, 11.6\%$), and Child Abuse ($N = 39, 7.9\%$) (Fig. 2).

Chi-square tests were performed to detect possible differences in issues between the two platforms. Ratios were significantly different on ten issues. On Twitter, for example, the most frequent firestorm issue was racism ($N = 88, 17.7\%$), while it was scarcely mentioned on Weibo ($N = 1, 0.20\%$, $\chi^2(1) = 92.11, p < .001$). Other issues discussed more prevalently on Twitter included LGBT rights, Gender issues, Freedom of speech, Discrimination, and International relations (see Table 1). Issues discussed more prevalently on Weibo were Illegal Activities, Sex Crimes, Child Abuse, and Public Safety. At the same time, there were no significant differences in issues on media credibility, animal rights, worker rights, environment, privacy, and political contributions.

H1 posited that individuals are more often targeted by online firestorms in the US than in China, whereas organizations are more often targeted in China than in the US. The target in the trending keyword was either an organization (i.e., profit, non-profit, governmental), an individual (i.e., politician, celebrity, CEO), a region (i.e., country, city), or not applicable (words that do not contain a specific target object such as #massshooting, #EndGunViolenceNOW, #CancelStudentDebt). There were significant differences between the US and Chinese platforms in terms of all four categories. The most frequent targets on Twitter, comprising more than half ($N = 250, 50.20\%$) were individuals. Individuals were also a frequent target on China Weibo ($N = 213, 43.38\%$) but to a notably lesser extent than U.S. Twitter, $\chi^2(1, N = 989) = 4.619, p < .05$. On Weibo, organizations ($N = 167, 34.01\%$) were, according to the trending keywords, frequent targets, but this was significantly less

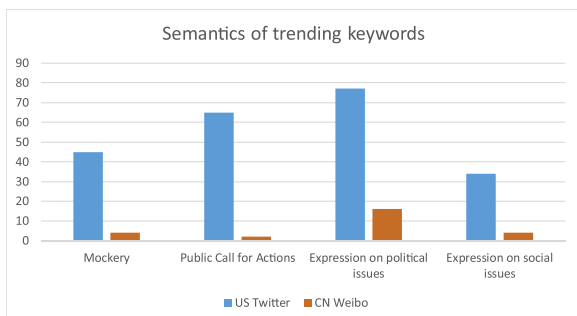


Fig. 1. Semantics of Top Trending Keywords on US Twitter and China Weibo.

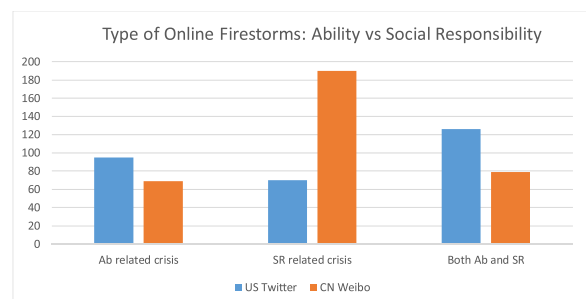


Fig. 2. Ability versus Social Responsibility Online Firestorm Types.

Table 1
Social Issues Discussed in Online Firestorms (Descending Order based on US Twitter).

	US Twitter	CN Weibo	χ^2 value
Racism	88 (17.67 %)	1(0.20 %)	92.11***
Political Stance	71 (14.26 %)	89(18.13 %)	2.73
Illegal activities	64 (12.85 %)	163(33.20 %)	57.88***
Public Safety	40 (8.03 %)	76(15.48 %)	13.24***
Discrimination	31 (6.22 %)	12(2.44 %)	8.50**
Sexism/Gender Issues	22 (4.42 %)	6(1.22 %)	9.18**
International Relations	19 (3.82 %)	7(1.43 %)	5.52*
Sexual Harassment/Sex Crime	13 (2.61 %)	57(11.61 %)	30.44***
Environment	10 (2.01 %)	5(1.02 %)	1.62
LGBTQ Rights	10 (2.01 %)	0(0.00 %)	9.96**
Media Credibility	10 (2.01 %)	10(2.04 %)	
Freedom of Speech	9 (1.81 %)	0(0.00 %)	8.96**
Child Abuse	9 (1.81 %)	39(7.94 %)	20.16***
Employee/ Worker rights	8 (1.61 %)	13(2.65 %)	1.29
Privacy	3 (0.60 %)	8(1.63 %)	2.37
Animal Rights	3 (0.60 %)	2(0.41 %)	0.19

common on Twitter ($N = 80, 16.06 \%$), $\chi^2(1, N = 989) = 42.505, p < .001$. Thus, H1 was supported.

H2 posited that government administrations and politics would be much less targeted in online firestorms on Weibo than Twitter. Analyses supported H2. On US Twitter, most online firestorms emerged from discussions on government administration/policy ($N = 288, 58.66 \%$) and/or politics ($N = 330, 66.27 \%$). These two topics, though, were discussed significantly less on CN Weibo (Govt. Administration: $N = 198, 20.02 \%$, $\chi^2(1, N = 989) = 30.31, p < .001$; Politics: $N = 89, 18.13 \%$, $\chi^2(1, N = 989) = 234.64, p < .001$; see Table 2). On CN Weibo, online firestorms were directed mostly at the business arena ($N = 238, 48.47 \%$), followed by the arenas of media and entertainment ($N = 200, 40.73 \%$). Aside from Public Emergency, the identified topics differed significantly between the two platforms (see Table 2). In addition, among the business areas online firestorms targeted (Weibo: $N = 238$; Twitter: $N = 72$), the majority of the targeted business areas were local-origin on both platforms (Weibo: $N = 137, 57.6 \%$; Twitter: $N = 63, 87.5 \%$). However, foreign companies were significantly more targeted on Weibo ($N = 96, 40.3 \%$) than they were on Twitter ($N = 9, 12.5 \%$), $\chi^2(3,$

Table 2
Subjects of Online Firestorms and Trending keywords.

	US Twitter	CN Weibo	Chi-square	p
Targeted areas of online firestorms				
Business Arena (Corporate)	72(14.46 %)	238(48.47 %)	132.925	.000
Gov Admin/ Policy	288(58.66 %)	198(20.02 %)	30.314	.000
Politics	330(66.27 %)	89(18.13 %)	234.644	.000
Non-Profit	21(4.22 %)	48(9.78 %)	11.773	.031
Media/Entertainment	90(18.07 %)	200(40.73 %)	61.261	.000
Public Emergency	53(10.64 %)	72(14.66 %)	3.621	.057
Total	498(100 %)	491(100 %)		
Targets specifically mentioned in the trending keyword				
	US Twitter	CN Weibo	Chi-square	p
Corporation	51(10.24 %)	143(29.12 %)	55.91	.000
Gov Administration	97(19.48 %)	37(7.54 %)	30.103	.000
Politics	156(31.33 %)	21(4.28 %)	123.1	.000
Non-profit	10(2.01 %)	22(4.48 %)	4.828	.031
Media/Entertainment	51(10.24 %)	177(36.05 %)	92.831	.000
Foreign region or nation	38(7.63 %)	83(16.90 %)	19.802	.000
Total	498(100 %)	491(100 %)		

$N = 310) = 21.84, p < .000$.

This result was also obtained when researchers compared the specific targets mentioned in the trending keywords. Chi-square results indicated that the targets mentioned in the trending words differed significantly between the US and Chinese platforms (see Table 2). On Twitter, similar to the previous results, the two most mentioned targets were politics-related ($N = 156, 31.33 \%$) and government administration ($N = 97, 19.48 \%$); on Weibo, those areas were much less targeted (Politics: $N = 21, 4.28 \%$, $\chi^2(1, N = 989) = 123.10, p < .001$; Govt. Administration: $N = 37, 7.54 \%$, $\chi^2(1, N = 989) = 30.10, p < .001$). The two most frequently mentioned targets on Weibo were media and entertainment areas ($N = 177, 36.05 \%$) and corporations ($N = 143, 29.12 \%$, see Table 2). Among the target corporations being specifically mentioned in the trending keywords (Weibo: $N = 143$, Twitter: $N = 51$), the majority of the targeted corporations were local/domestic on both platforms (Weibo: $N = 79, 55.2 \%$; Twitter: $N = 45, 88.2 \%$). However, foreign-origin corporations were significantly more targeted on Weibo ($N = 61, 42.7 \%$) than they were on Twitter ($N = 6, 11.8 \%$), $\chi^2(2, N = 310) = 17.86, p < .000$.

RQ3 examined the Ability and Responsibility online firestorms on Twitter and Weibo. Weibo had more online firestorms that were identified as Social Responsibility-related ($N = 269, 54.8 \%$) than Twitter ($N = 196, 39.4 \%$), $\chi^2(1, N = 989) = 23.63, p < .001$; Twitter had more online firestorms that were Ability-related ($N = 221, 44.4 \%$) than Weibo ($N = 148, 30.1 \%$), $\chi^2(1, N = 989) = 21.42, p < .001$. On both platforms, the majority of the Ability online firestorms (Twitter: $N = 214, 96.8 \%$; Weibo: $N = 137, 92.6 \%$) resulted from expectation violations related to quality/performance; these mostly concerned bad quality and performances by the target. And most Social Responsibility online firestorms were ethics-related (Twitter: $N = 124, 63.3 \%$; Weibo: $N = 261, 97.0 \%$), but they were significantly more frequent on Weibo than on Twitter, $\chi^2(1, N = 465) = 90.73, p < .001$. Notable differences were observed in issues on mistreatment of stakeholders among Ability-related online firestorms and Diversity issues among Social Responsibility-related online firestorms. Weibo users ($N = 61, 41.2 \%$) were significantly more interested in discussing online firestorms related to mistreatment of stakeholders than Twitter users ($N = 1, 0.5 \%$), $\chi^2(1, N = 369) = 105.37, p < .001$. Twitter users ($N = 68, 34.7 \%$), on the other hand, were much more interested in incidents regarding diversity than were Weibo users ($N = 2, 0.7 \%$), $\chi^2(1, N = 465) = 102.20, p < .001$.

RQ4 examined the SCCT crisis types among the online firestorms on Twitter and Weibo. The results indicated there were significant differences between the American and Chinese platforms $\chi^2(2, N = 989) = 98.24, p < .001$. In both countries, most of the crises were identified as preventable crises, though Twitter had more ($N = 356, 71.5 \%$) than Weibo ($N = 318, 64.8 \%$). Weibo had more victim-type crises discussed ($N = 128, 26.1 \%$) than did Twitter ($N = 65, 13.1 \%$). Accidental type crises were also discussed more on Weibo ($N = 37, 7.5 \%$) than on Twitter ($N = 5, 1.0 \%$) but did not occur frequently on either platform.

5. Discussion

This study suggests significant cultural differences between China and the U.S. in terms of how users engage in online firestorms on social media platforms through their communication behaviors. First, for an online firestorm in China to gain high public visibility and notoriety, users had to share and discuss a negative event or issue much more frequently than did users in the U.S. (20 times more). Even after considering the difference of active users on the two platforms (China Weibo: 430 million; US Twitter: 68 million, Ren, 2018), there is a significantly higher threshold to be considered an online firestorm on Weibo than on Twitter. This may suggest that Chinese users tend to be more active in discussing and sharing the trending keywords that contribute to collective accumulations of a certain criticism or claim to

which the trending keywords relate (Papacharissi, 2015). From this finding, we cannot simply conclude that Chinese are more prone to prevailing public opinion climates gained from social media's system cues (e.g., top trending keywords). However, it may suggest that Chinese users are likely to follow and join online firestorms by carrying out more active individual engagement behaviors and possibly being more receptive to social media's system cues (e.g., top trending keywords) that signal the collective accumulations of individual user engagement behaviors.

Second, U.S. users much more frequently engage in online firestorms by deploying mockery, expressing political or social opinions, and actively mobilizing collective actions against the targets of online firestorms than Chinese users. This implies that as U.S. users carry out online firestorms they tend to reveal more points of views, containing more judgements especially as they relate to political issues. This is not especially surprising considering the two countries' approaches to Internet communication, with the U.S. occupying the most liberal position on free speech and the authoritarian China occupying the most conservative, strictly censoring Internet expressions (Einwiller & Kim, 2020; Yu, 2018). In a similar vein, we confirm that, in their online firestorms, the Chinese users do not target Chinese government administrations or politicians/politics but rather extensively point out the names of businesses such as corporations or entertainment industry-related organizations and celebrities. U.S. users, in contrast, tend to be largely expressive about politics and target governments and administrations much more frequently than they do corporations or other types of organizations.

Third, Chinese users tend to target social institutions or surrounding environments such as corporations or regions much more than their U.S. counterparts. In discussing online criticism against them, U.S. users target, to a much greater extent, individuals such as representatives of governments and corporations. This particular finding is in line with previous cultural psychology research that suggests Americans focus more on a focal object rather than on external, environmental or situational attributes, thereby performing internal locus causality and dispositional attribution (i.e., a tendency to attribute to individuals' personal traits) for the targets of negative events (Choi et al., 1999). In contrast, Chinese users seem to perform situational locus causality attribution, as they more often target groups and social agents than do U.S. users. This is related to China's collectivistic culture. In such a culture, when assessing attributions of an individual's behavioral consequences, people focus more on social actors as essential agents. As a result, they tend to consider crisis causality more as the group's or organization's responsibility (Morris & Peng, 1994). This may lead Chinese users, when discussing negative events, to focus more on social actors than their U.S. counterparts are likely to.

Nonetheless, our finding suggest that Chinese users also target individuals relatively more than organizations or regions. In this regard, this study also supports an argument that although East Asians attribute more to social agents or situational attributes, that does not necessarily mean that they are less given to dispositional attribution, focusing less on a focal object than situational attribution (Choi et al., 1999). Many cultural psychologists claim that assessing dispositional traits for attribution is a relatively universal exercise among people across varying cultures (Choi et al., 1999; Morris & Peng, 1994). Thus while Chinese users tend to attribute more to social agents or situational aspects than their U.S. counterparts, they still perform dispositional attribution at a higher rate than situational attribution, though not as often as American users (Morris & Peng, 1994).

In a similar vein, when carrying out online firestorms, Chinese users tend to target, much more so than their American counterparts, foreign corporations. In both countries, though, the majority of business-related online firestorms concern domestic corporations rather than foreign ones. This particular finding may also be explained by the two countries' cultural differences regarding in-group and out-group distinctions. One possible explanation might be offered by prior research that has

suggested people in collectivistic countries tend to evaluate in-group members more generously than out-group members (e.g., Gómez, Kirkman, & Shapiro, 2000). Another explanation could be that Chinese people may hold greater expectations of foreign companies in terms of how they treat their employees and product quality (Turban, Lau, Ngo, Chow, & Si, 2001; Zhou & Hui, 2003). In addition, with recent advancement in the Chinese economy, an increase in national pride has been observed among the Chinese. Chinese people may thus increasingly expect foreign companies to meet Chinese norms and cultural standards (Froese, Sutherland, Lee, Liu, & Pan, 2019). Hence, foreign companies in China might now more frequently run afoul of expectations. Americans' expectations of foreign corporations may, in contrast, not be as high as they are for domestic ones given American companies' dominance in global markets (Ross, 2020). This offers important insight into practice. Foreign companies that operate in China should strive to not violate domestic publics' expectations through meeting Chinese norms and cultural standards as they may become easier targets for online firestorms.

Fourth, there is also a difference between the two countries in regard to the areas of online firestorm target objects. The largest target categories of online firestorms in China are the media and entertainment industries, followed by the business arena and foreign region or nation. In contrast, the largest proportion of U.S. online firestorms are directed at government administrations, followed by politics and media/corporations (media and corporations revealed the same proportion in our study). A predominance of government administrations and politics in the U.S. online firestorms may result from increased political polarization under the Trump administration (Dvir-Gvirzman et al., 2018; Tyson, 2018) and the mid-term elections in November 2019 (Lerer, 2019). Our data collection period was from March to August in 2019, so the U.S. elections might have been a factor in why government and politics were the main agendas. In China, increased online firestorms directed at foreign nations could be related to economic conflicts between the two countries as the Chinese public expressed indignation at the U.S. due to the fact that it was portrayed as peremptory in China (Bradsher, 2019). Our findings also differ from a recent study on German mainstream media coverage of online firestorms (Einwiller et al., 2017). In their study, the news most often covered online firestorms directed at the business arena, followed by those directed at politics and media. The discrepancies may come from journalistic news filtering based on social significance or relevance considering the fact that the authors analyzed the news media coverage of online firestorms rather than the phenomenon itself (Shoemaker & Cohen, 2006). As an alternative, the discrepancies may result from each country's situational factors, i.e., depending on what's happening at any given time period, the most dominant online firestorm category could vary. Either way, what we can conclude from our findings and the previous literature (Einwiller et al., 2017; Johnen et al., 2018) is that business arena, politics and government administration, and media-related issues are more likely to spur online firestorms in democratic countries like the U.S., whereas similar areas except politics-related are more likely to spur online firestorms in China. With regard to social issues, racism issues triggered online firestorms most often in the U.S., whereas in China, it was illegal activities such as social crimes and bribe/corruptions. Social problems or issues are socially constructed and related to what a given society values in a given time (Schneider, 1985). Thus, the two varying dominant social issues spurring most online firestorms certainly reflect, at this moment, what the contemporary U.S. and Chinese societies value and considered problematic (Schneider, 1985).

In addition, this study suggests that the Ability-Social Responsibility typology (Brown & Dacin, 1997; Kim, 2011, 2014) can be useful to classify online firestorms. It can help us discern which reputational attributes of a target violates stakeholder expectations and eventually spurs online firestorms. The application of this typology also reveals a difference between the two nations. Ability-related online firestorms are more common in the U.S. than in China, and social responsibility-related

online firestorms are more prevalent in China than the U.S. This implies that mishaps related to one’s ability, competence, and performance are more likely to trigger public outcry in America’s social media. In China, more online firestorms may be spurred by failures to meet social responsibility or ethical virtue-related expectations. This particular finding supports Sethi’s (2003) argument, to a certain extent, that corporate social responsibility (CSR) is a notion closely relevant to collectivistic values rather than individualistic values, and thus Asian countries tend to embrace and fit better with the notion of CSR. His claim hinges on the belief that CSR is about upholding public or community’s interests over individuals’ self-interests (Lee & Kim, 2010). Similarly, a comparative study investigating differences in news frames on CSR in the U.S. and Korea found that U.S. CSR news coverage tends to focus more on what or whether CSR activities can bring about a competitive edge to a company; Korean CSR news coverage tends to emphasize what benefits a company’s CSR can bring to society (Lee & Kim, 2010). Thus, in extending the CSR notion to other types of organizations and individual’s social responsibility or ethics-related attributes, users in China may care more for their expectation violations in a target’s social responsibility or ethics-dimension. This provides an interesting insight into crisis management practice. Crisis management practitioners could apply this particular finding—the varying vulnerability of the two online firestorms types (i.e., ability vs. social responsibility) in the two nations—to their crisis prevention efforts. In China, organizations and individuals should pay more attention to their ethics and social responsibility related attributes, trying to not violate stakeholder expectations in the responsibility-related reputational dimension. In the U.S., more focus could be given to ability-focused and performance-related mishaps. Accordingly, in planning crisis prevention, organizations operating in China should allocate more resources and budget to training its workers and preventing responsibility-related mishaps, while those in the U.S. should do the same to prevent ability- and performance-related mishaps.

Lastly, SCCT’s crisis type classification can also be applicable to online firestorms. We find that the most frequent online firestorms fall into preventable crises such as a target’s misdeed and mismanagement causing public outcry in both nations, followed by victim and accidental

type crises (Coombs, 2007). Victim-type online firestorms seem to be more frequent in China than in the U.S. as Chinese publics seem to carry out online firestorms from the perspectives of the victims in social crimes (e.g., cases of teenager kidnappings, Lim, 2019) or natural disasters (e.g., 2019 Sichuan earthquake; Zuo, 2019).

Although this study provides useful cultural implications, the content-analysis method is exploratory and limited to providing the general landscape of and cultural differences in the phenomenon of online firestorms. We encourage scholars to employ other methods such as surveys and experiments to understand this new phenomenon better, especially in terms of its underlying psychological mechanism of why and how people carry out online firestorms.

The study’s selection of a six-month period to collect data was arbitrary, based largely on researchers’ convenience. This may bring about potential situational factor intervention (e.g., U.S. mid-term elections). Thus, we recommend future research to collect data for a longer period to avoid chances of potential situational factor intervention. All in all, this study offers significant insight into how users in varying countries engage in online firestorms, extending the existing knowledge in cultural aspects of crisis communication. Users in the U.S. and China indeed differ in how they carry out online firestorms, demonstrating cultural differences in attribution focus (individuals vs. group/organizations), target scope (government/politics vs. business arena), and prioritized social problems (racism vs. corruption/bribe).

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A

Online Firestorm Code Book

Unit of Analysis = Each Trending Keyword and Top 5 Tweets that include the Trending Keyword

Trending word-related tweets thread can be drawn from the Twitter’s website using advanced search function (<https://twitter.com/search-advanced> [inputting the trending word to ‘this exact phrase’ and selecting the exact date]).

- A Trending word: _____ (write down trending word)
- B Trending word ID #: _____
- C Coder ID: 1= coder1, 2= coder 2, 3= coder 3, 4= coder 4
- D Platform: 1 = US Twitter 2 = CN Weibo
 - Basic Characteristics of the Trending Keyword Itself
- E Month: _____ (month the trending word appears)
- F Day: _____ (day the trending word appears)
- G Rank: _____ (rank in the trending lists)
- H Volume: _____ (Tweet/Weibo posting count)
- I Specifics about the Trending Keyword Itself

	Does the trending keyword include the following?	Yes = 1, No = 0
1	Presence of Mockery toward a person/org/society in the trending word	
2	Presence of Public Call for actions/Collective Actions (Protest)/Social movement/Boycotts (e.g., #BoycottMulan)	
3	Publics’ Political Expression of Opinion (e.g., #TrumpTerrorists)	
4	Publics’ Opinion Expression on Social Issues such as Immigrants, Racisim, (e.g., #WakeUpToRacism, #DefendCivilRights)	

J Proper Name (Proper Noun) mentioned in the trending words: _____

- 1 = Organizations (corporations: when product brand name should be considered as corporations, government, non-profit orgs, media)
- 2 = Individuals (Representatives of corps, government, politicians, non-profits, media)
- 3 = Region, nation, location name

K Specific Characteristics of the Proper Name (Proper Noun) mentioned: Is the name mentioned in the trending word related to the following?

	Specific Characteristics of the Proper Name mentioned in the Keyword	Yes = 1, No = 0
1	Corporation-related (profit-org)	
1-1	• Origin of corporation (1 = Local/domestic, 2 = Foreign)	
2	Government Administration-related	
3	Politics/Politician	
4	Non-profit orgs-related (include education institutions)	
5	Media orgs-related	
6	Foreign region or nation (outside of US or China)	

■ Characteristics for Online Firestorms related to the Trending Keyword (Refer to 5 Top Associated Tweets that include the trending word; Should be coded from the perspective of the Trending Keyword)

A Scopes of the online firestorms related to the trending word

	Scopes of the online firestorms related to the trending word	Yes = 1, No = 0
1	Business related	
1-1	• Origin of business (1 = Local, 2 = Foreign)	
2	Government Administration/Policy related	
3	Politics/Politician-related (e.g., presidential election, political contributions)	
4	Non-profit org related	
5	Media-related (newspaper, TV, entertainment, movie, etc)	
6	Public Emergency/Societal-level disaster/natural disaster	

M Social Issues/Moral Concerns

Social Issues/Moral Concerns-related	Yes = 1: No = 0
1=Illegal activities (e.g., illegal political campaign contributions, corruptions, bribe)	
2= Freedom of speech, freedom of expression	
3=Sexual Harassment/Sexual Crime	
4=Consumer Information leakage, data breach, violation of consumer privacy	
5=Environmental damage/issues (waste disposal, climate change, pollution)	
6=Public safety/public health-related issues (food safety)	
7=Child abuse/neglect	
8=Racism issues (discrimination against race)	
9=Discrimination against nationality	
10=Sexism/Gender issues (e.g., misogyny, misandry, gender discrimination/inequality)	
11=Employee/workers' rights	
12 = LGBT rights/homophobia	
13=Animal rights	
14=Political contributions/activities/stance	
15=International relations/affair related issues (e.g., US-China trade war)	
16=Media credibility, fake news-related social issues	

N Ability-Social Responsibility Typology

Type of crisis	Yes = 1: No = 0
Ability-Related Crisis: Ability-related crisis = An event that adversely affects the in-crisis party's reputation associated with expertise, competence, ability-related performance	
<ul style="list-style-type: none"> • in-crisis party's lack of expertise/ incompetence in doing job • unreasonable price of the organizational products/ services • Bad/faulty products/services or bad performance in doing job • Poor management of the organization, preferential treatment • Mistreatment of consumers related to products or services 	

(continued on next page)

(continued)

Type of crisis	Yes = 1: No = 0
<ul style="list-style-type: none"> • Mishap in the organizational industry leadership or tech innovations Responsibility/Ethics Crisis: SR Crisis: An event that poses a threat to reputation associated with norms and values cherished by society, and socially expected obligations	
<ul style="list-style-type: none"> • in-crisis party's environmental stewardship mishap • philanthropic contribution-related mishap • educational commitment-related mishap • social diversity related mishap • public-health-related commitment mishap • ethics/ moral-related mishap 	

O SCCT Crisis Type: _____ 1= Victim, 2=Accidental, 3=Preventable 4 = Not Applicable

1= Victim Crisis: little crisis responsibility; external factors cause damages; the in-crisis party is also a victim of the crisis; such as natural disaster (flood, earthquakes, wild fire), mass shooting (when the party involved in a crisis has no or little mistakes, i.e., things happened because of external factors).

2= Accidental Crisis: low levels of crisis responsibility; the crisis is seen as largely uncontrollable by the in-crisis party and unintentional; such as technical-error accidents, technical-error product harm (accidents happened by technical reasons, not human mismanagement or organizational mismanagement)

3= Preventable Crisis: high levels of crisis responsibility; the in-crisis party knowingly placed people at risk, took inappropriate actions or violated a law/regulation, willfully engaged in behaviors that led to the crisis; internal factors caused damages, such as human-error accidents, human-error product harm, organizational (or individual) misdeeds

4 = Not Applicable (cannot apply this classification)

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