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| **RESEARCH ARTICLE**

Positive Effects of Emotional Issues Under the Agenda Setting Theory: An Analysis of the Shanxi Rainstorm Event's Agenda Setting Process on Weibo

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| **ABSTRACT**

The popularity of Internet technology, coupled with the advancement of new media, enables individual emotions within the public to converge into collective emotions when shared on social media. The transmission of public opinion during public emergencies is increasingly characterized by intense emotions, limited information, and unclear facts. Without proper guidance, it has the potential to escalate social conflicts. As a result, the positive effects of emotional issues are frequently disregarded in a discriminatory manner. This paper conducts an empirical study on the agenda setting on Weibo of the Shanxi rainstorm event, specifically focusing on its atypical public sentiment compared to other natural disasters. The results of the study indicate that both public users and self-media exploit their superiority in terms of time and space to acquire first-hand information, thereby having more of a chance than others for their voices to be heard in the first- and second-level agenda-setting processes. This stimulates the positive effects of emotional issues, which, together with government agencies' Weibo accounts such as Shanxi Daily, contribute to resolving the public crisis of the Shanxi rainstorm event.

| **KEYWORDS**

Agenda setting; emotional issues; sentiment analysis; Shanxi rainstorm; Weibo

1. Introduction
1.1 Study Background
Agenda setting is of the essence in the field of communication studies, demonstrating the dramatic shift in media emphasis on agenda may influence audiences' perceptions of its significance. In the past, professional media outlets were considered the dominant—and even the only—setter of public agenda. However, the emergence of new media has increased the public's opportunity for their voices to be heard. The public's impact on agenda setting has been reinforced to some extent, posing a challenge to the traditional media's authority in this regard.

In recent years, the widespread use of the Internet, coupled with the improvement in public participation awareness, has assured ordinary people and self media of the rapid dissemination of an overwhelming majority of spot news concerning the coverage of public emergencies. Professional media, by contrast, face challenges in timely reporting due to limitations in time and space. In the era of new media, government agencies' Weibo accounts should actively make adjustments in congruence with the agenda set by the public when dealing with public emergencies. This approach can effectively leverage the influence of public opinion in crisis management.

A record-breaking rainstorm fell in Shanxi Province from October 2 to 7, 2021, causing a number of secondary disasters, including landslides, breaches of embankments, urban waterlogging, and stranded residents. This extreme weather event affected a total of 1,757,100 people in 11 cities and 76 counties, resulting in a direct economic loss of up to 5.029 billion yuan (Qiao & Fu, 2021). Due

to its unpredictable nature and significant harm to the safety of people's lives and property and historical sites, both the official media and the general public should have attached importance to the October 5 rainstorm, one of the major public emergencies in Shanxi Province in 2021. However, the attention paid to the Shanxi rainstorm in the early phases of the disaster was consistently lower than that paid to the July 20 Henan rainstorm, which received widespread coverage in the same year. In response to the disaster, the public expressed strong emotions with a rapid sharing of these emotions. Under the influence of this agenda-setting, emotional issues were given precedence, resulting in the official media outlets, such as Shanxi Daily, actively contributing to resolving the crisis. Consequently, the situation where no one paid attention to Shanxi was rectified, with a new consensus of tiding over the difficulties together with Shanxi.

1.2 Literature Review

Disaster events are distinguished by their abruptness, formidable destructive power, and far-reaching effects. Such events can readily give rise to the emergence of secondary disasters, such as the spread of rumors. In the research on the agenda setting of public opinion concerning disaster events, Wang focused on the "Shouguang Flood in Shandong", a natural disaster, and the "Wanzhou Bus Crash in Chongqing", a man-made calamity, to analyze the characteristics of attribute agenda setting in various types of media during different stages of public opinion dissemination using social networks. Based on the examination of agenda setting among Weibo accounts created by government agencies, official media, and business media, a conclusion is drawn that government agencies focus on establishing emotional connections with their audience through interactive posts. Official media outlets, by contrast, prioritize explanations and regulations through rational interaction. Business media outlets aim primarily to provide structured interpretations through information interaction.

Li et al. further categorized the content related to the rainstorm in Shanxi, discovering that the agenda was set objectively, with attributes varying from one to another. In the early stages of the event, a dearth of influential opinion leaders who could shape public opinion effectively caused the emotions of the public to become significant agenda items without specific impact. However, information about the Shanxi rainstorm spread across different channels as the event progressed. Government media outlets like Shanxi Daily were influenced by these issues and formed a joint force with public users to address the event. This further demonstrates the positive role emotional issues can play and highlights the importance of government media's involvement in such events.

With an in-depth understanding of this pattern, the agenda-setting power of public users and the positive impact of emotional issues, coupled with these three types of media outlets, assure the resolution of disaster events.

The formation of emotional issues is deeply rooted in the social sharing of emotions. Hong explored the correlation between the social sharing of emotions and emotional recovery, revealing that the social sharing of emotions is extensive and rapid, and it is influenced by factors such as the intensity of emotions and the audience with whom the sharing occurs. Additionally, Rimé indicated that individuals in an environment of emotional sharing are more prone to being influenced by emotions, and emotional sharing can trigger further sharing behaviors. In terms of specific emotional issues, Zhang et al. provided references for further categorizing different types of emotions. On this basis, this paper reveals that comments with strong emotional tendencies more easily elicit emotional sharing from readers in combination with the analysis of the entries collected. In the Shanxi rainstorm event, Weibo and other new media provided a platform and audience for sharing public emotions. During the sharing process, these new media intensified emotions and increased the power of the public users to set the agenda, thereby creating favorable conditions for the development of emotional issues.

Prior studies have connected constructive journalism with the public's power of discourse. In the Study on the Coverage of Disaster News by Local Media from the Viewpoint of Constructive Journalism, Wen contended that Shanxi Daily valued public sentiment, promptly shared official decisions on disaster relief, and highlighted the coverage of civic heroes. During the later phases of the Shanxi rainstorm, it actively pursued resolutions, thereby offering valuable references for subsequent coverage of disaster news by local media.

In the Research on Agenda Setting among Media in Disaster Events, Wang suggested that by examining the agenda setting among different types of entities in various disaster events, the government can enhance its ability for emergency management and exploit its superiority to the fullest in guiding public opinion. By analyzing the agenda-setting dynamics among entities and their correlations, as well as leveraging the advantages of emotional issues, it is feasible to facilitate collaboration between government media and public sentiment, proactive measures from disaster relief departments, and coordination between public opinion organizations and disaster relief organizations. These efforts can ultimately lead to improved disaster control and post-disaster reconstruction.

1.3 Objectives and Methods

Individual emotions evoked in real life, especially during a crisis, spread through social media like Weibo and WeChat and then coalesce into collective emotions. Moreover, these emotional issues are integrated into the agenda-setting process, holding immense importance in managing and resolving crises in the age of new media.

However, when the perception of the public towards an unforeseen event is swayed by emotional issues, it tends to be driven more by intense feelings rather than solid facts and reliable information. Improper guidance may hinder the resolution of crises and even escalate social conflicts. As a result, the positive role of emotional issues has been the Cinderella of the media world, and utilizing emotional issues to facilitate event resolution requires more effort and opportunities.

This paper formulates how the Shanxi rainstorm event was communicated to the public via Weibo and how it captured the public's attention. Additionally, it explores the characteristics of emotional issues in this event, offering valuable insights into potential emotional issues that may arise in future crises. Furthermore, it also focuses on the influence of emotional issues in agenda setting, thereby examining how the characteristics of emotional issues can be employed in the dissemination process of the new media era, in collaboration with official media, to facilitate the resolution of crises through public opinion.

Using web crawler technology, this paper collected original content on Weibo from October 4 to 8, 2021, focusing on the keyword "Shanxi rainstorm". From the 53,539 data collected, 4,618 were from government agencies, 3,164 from professional media outlets, 12,723 from self-media bloggers, and 33,034 from public users. These issues were then subject to the first- and second-level agenda-setting processes, exploring the role of emotional issues in agenda setting. Additionally, this paper also analyzes the changes in the correlation between the number of emotional issues and the number of disaster reports and investigates the correlation between emotional issues and event resolution.

2. Study on the Agenda Setting on Weibo of the Shanxi Rainstorm Event
2.1 Study on the First-Level Agenda Setting

■ Government Weibo   ■ Professional media   ■ Self-media   ■ Public users
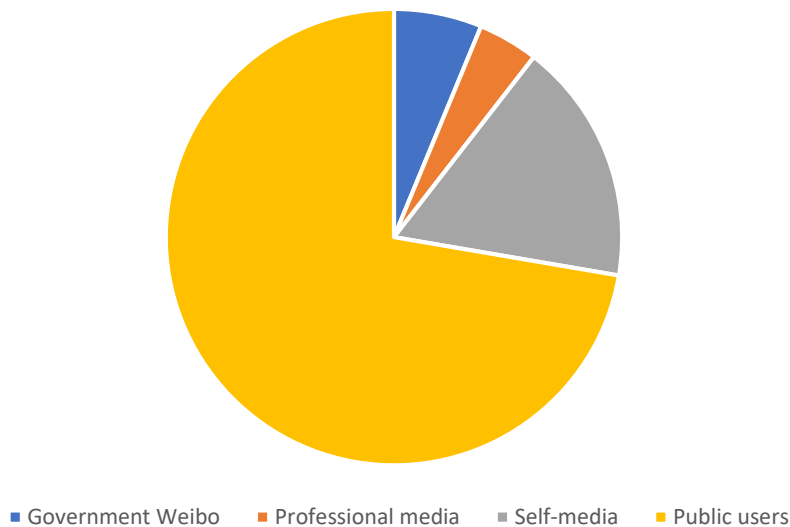
Figure 1. Taking "Rainstorm in Shanxi" as the keyword, the proportion of articles published by each entity

Based on the data findings, throughout the 15 days and 10 hours of the life cycle of this event's network public opinion, there were a total of 4,618 posts from government agencies on Weibo. Professional media outlets, by contrast, only contributed 3,164 posts on Weibo. However, the number of posts from self-media and public users reached as high as 45,757, making up 85% of the total number of Weibo posts and occupying the majority of the discourse structure. This deviates significantly from data on other public emergencies, particularly in terms of the entities that publish on Weibo (Wang, 2021). From this, it becomes evident that there was a significant difference among entities in the level of involvement in agenda setting on Weibo during the Shanxi rainstorm event. Social media users, as non-professional and unofficial media sources, exerted the most significant influence in having more of a chance for their voices to be heard in this event. Specifically, self-media and public users demonstrated strong abilities in agenda setting, while government agencies and professional media outlets only reflected the public agenda. They played a role during the middle and later phases of the event, following emotional issues dominated by the former. In other words, self-media and public users, bringing their advantages in terms of space and time to the fullest, effectively shared information

about the event with the public and local government media, thus taking control of the agenda setting for the event. As a result, they further emphasized the perception of the disaster's significance among the public, government, and disaster relief departments.

2.2 Study on the Second-Level Agenda Setting

This paper organizes the content concerning the Shanxi rainstorm according to the second-level agenda setting. These include "disaster", which covers content about pre-disaster warning, impact, and popularization of science; "aid", which includes information about disaster relief and social assistance; "sentiment", which focuses on the emotional issues; and "seek help" (Li & Liu, 2023). Table 1 shows the number of posts published by each entity under each topic during the life cycle of this event's network public opinion. The topic with the highest number of posts is considered the main focus for that entity.

Table 1. Number of posts published by each entity under each topic

	Government Weibo	Professional media	Self-media	Public users	Total
Disaster	781	696	1,549	3,650	6,676
Aid	1,995*	1,515*	1,958	996	6,464
Sentiment	46	36	3,115*	12,795*	15,992*
Seek help	198	363	1,097	5,122	6,780

Based on the provided data, it is clear that there was a clear agenda set in relation to the extreme rainstorm event in Shanxi. However, each entity had different areas of focus. The public emergency gained widespread attention through videos and images, and once it was shared on Weibo, each entity commented on the event based on their existing cognitive and interpretive frames. This led to a situation where there was a "monologue" of opinions. Emotional issues, which had a significant presence among the four, exploited its unique characteristics in rapidly spreading the event and exerting a positive impact.

This paper extensively examines the quantity of content related to emotional issues, disaster reporting, and aid, thereby demonstrating the correlation between these categories. The data obtained is presented in Tables 2 and 3.

Table 2. Correlation between emotional issues and disaster reporting

	T1	T2	T3	T4	T5
Notification by government on the disaster	134	282	168	197	110
Notification by professional media on the disaster	64	231	137	82	72
Emotional content of self-media	194	1,225	233	290	143
Emotional content for public users	1,362	7,982	1,373	1,553	525

Table 3. Correlation between emotional issues and aid briefings

	T1	T2	T3	T4	T5
Notification by government on the aid	24	689	718	564	299
Notification by professional media on aid	17	353	335	291	220
Emotional content of self-media	194	1,225	233	290	143
Emotional content for public users	1,362	7,982	1,373	1,553	525

Notes: T represents time; for example, T1 represents October 4, T2 represents October 5, and so on.

The provided figure, Figure 2, illustrates the correlation between the number of emotional issues in self-media and the number of disaster reports in professional media.
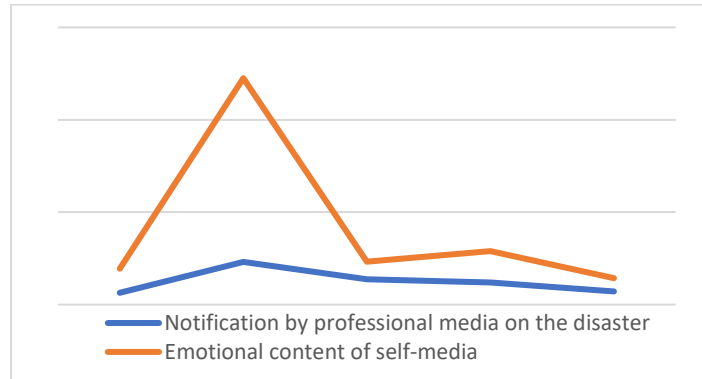
Figure 2. Correlation between the number of emotional issues and the number of disaster reports

It can be observed that the two lines in the figure exhibit a strong correlation. This suggests that emotional issues have a significant impact on second-level agenda setting and are extensively involved in the management of disasters.

3. Study on Emotional Issues on Weibo of the Shanxi Rainstorm Event
Social sharing of emotions commonly occurs in our daily lives, where individuals share an emotional experience using the language of social sharing with specific people, vividly describing the details of the experience. This process contributes to the formation and consolidation of memories related to significant events (Hong, 2008). In the world of today, the continuous advancement of media technology, coupled with more precise methods of expression, has highlighted the importance of emotional contagion in mass communication, exerting a substantial influence on the speed at which information spreads and the social response.

As such, this paper focuses on emotional issues to further categorize them. To illustrate how local government media facilitates the dissemination of emotional issues, it specifically examines Shanxi Daily as an example and demonstrates the positive role it played in the Shanxi rainstorm event.

3.1 Analysis of the Strong Diffusion and Mechanism of Emotional Issues
Emotional issues have a tendency to spread widely and quickly. In this event, the expression of emotions, as a second-level agenda setting, exploited this superiority in affecting the first-level agenda setting, causing the Shanxi rainstorm event to become a prominent topic for the public. When individuals are in an environment of emotion sharing, they are more easily influenced by emotional appeals. The act of emotion sharing triggers further sharing behaviors, leading to the dissemination of emotional information. The intensity of emotions is proportionate to the willingness to share (Christophe & Rimé, 1997), resulting in the transformation of individual emotions into collective emotions.

This paper focuses on the mechanism by which emotional issues concerning the first-level agenda setting of the Shanxi rainstorm spread to explore the strong diffusion of emotional issues. Zhang et al. considered "likes" and "comments" as forms of agreement (Zhang & Zhao, 2017). On this basis, this paper collected public users' comments on Shanxi Daily's official account under the topic of Shanxi Rainstorm to analyze the number of likes and comments garnered by comments expressing varying emotions. Among these emotions, positive ones were ranked in descending order of intensity as blessings, encouragement, and rational advice, while negative ones were ranked as mourning, questioning, and shock and confusion, from strongest to weakest. In the samples collected, the comments and likes categorized as blessings received a total number of 7,948, with the highest number of likes among all categories. However, the number of comments for rational advice came in second, indicating that expressing agreement with rational advice often requires a more detailed explanation rather than a simple one. Previous research has shown that comments with strong emotional tendencies easily trigger the sharing of emotions among readers (Qi, 2022).

Based on this, content eliciting positive emotions has a more substantial impact on the public's sharing behavior on Weibo than that with neutral emotions. Specifically, during this extreme rainstorm event, content related to blessings that evoked highly positive emotions significantly influenced the public's sharing of emotions on social media. The widespread dissemination of information about the Shanxi rainstorm in the first-level agenda attracted significant attention to the disaster through agenda setting.

3.2 Analysis of the Guidance and Mechanism of Emotional Issues
Emotional contagion, with its ability to influence behavior (Zhao & Liu, 2020), had a significant impact on the Shanxi rainstorm event by leveraging the prominent position of emotional issues in the second-level agenda setting. It directed the expression of

emotions towards Shanxi Daily, facilitating the exchange of thoughts and feelings between the public and the government, thereby ensuring the "quality" of public opinion that brought attention to the disaster.

During the process of promoting understanding of news events for all audiences, the similarity of emotions conveyed by the information directly influences their level of acceptance. Self-media and public users showed positive emotions or blessings, which aligned with the government's need to maintain stability and quickly comfort and resettle the affected populations. Emotionally, they provided support and encouragement through government agencies' Weibo accounts. Frederickson pointed out that obtaining informational resources from positive emotions can bring long-term benefits to individuals. Shanxi Daily also responded to the emotional needs of the people in the early stages of the rainstorm, stabilizing public opinion while addressing the disaster situation.

Shanxi Daily mainly focused on factual issues and reports on official governance measures. During the extreme rainstorm period, this media outlet timely reported and disseminated information from the Provincial Flood Control Headquarters, constantly responding to public demands, stabilizing public sentiment, and promoting problem-solving. For example, Shanxi Daily published multiple articles in its print media, such as Shanxi Province's Full Efforts to Prevent and Respond to Rainstorm During the National Day Holiday, the Provincial Flood Control and Drought Relief Headquarters Deploys Flood Control in the Shanxi Section of the Yellow River Basin, which documented the disaster prevention and control of the Provincial Flood Control Headquarters. The account of Shanxi Daily on TikTok and Weibo brought the advantages of new media in vividly and accurately communicating official decisions and emergency plans in the form of videos and images. They have mastered the means of rapidly disseminating government information through new media, respecting the public's habits of obtaining information. Among them, the short video on TikTok titled Visualizing the Magnitude of the Rainstorm in Shanxi effectively provided an overview of the extreme rainstorm event and the real-time meteorological warnings issued by the Provincial Meteorological Bureau in a cartoon. This, to some extent, eased public concerns and ensured the implementation of official measures based on public sentiment.

Furthermore, Shanxi Daily focused on capturing the public's attention and placed emphasis on covering civic heroes. For example, on October 7, it published an article titled A Touch of Warm Fluorescent Green, using photo news to depict the well-organized evacuation carried out by traffic police during the disaster. The account of Shanxi Daily on TikTok exploited the platform's music-oriented short videos to focus on the spontaneous disaster relief activities carried out by the masses. An emphasis was placed on reports concerning military-civilian cooperation, presenting the real sense of the frontline in flood control and highlighting the happiness and persuasiveness arising from the combination of warmth and speed. This image-shaping of civic heroes replaces the binary opposition in conventional narration, presenting a narrative shift that allows ordinary people to also strive for a sense of connection. It holds great significance in conveying strength and healing the soul.

4. Conclusion
Throughout the development of public sentiment in this extreme rainstorm event, public users and self-media exploited their spatial and temporal advantages to the fullest in obtaining first-hand information, exerting a significant impact on agenda setting. Although the accounts of government agencies and media outlets on Weibo were engaged throughout the event, both in terms of the number of posts and their influence, their contribution was relatively limited. This study confirms the positive role of emotional issues in the diffusion of topics, further promoting disaster management. Namely, emotional issues in a vast number significantly accelerate the speed and scope of event communication, thereby enabling events to be communicated to the public in a faster, more complete, and more genuine manner. This attracts attention from the Weibo accounts of local government agencies and the government, ultimately facilitating the prompt management of disasters and the resettlement of affected populations from a public opinion standpoint. Therefore, it is evident that emotional issues have more than just negative effects. The proactive coordination and intervention of local government media can enhance their positive effects and contribute positively to crisis management.

This paper focuses on the cooperation between public media and government media in this event, formulating the roles of each entity. Specifically, public users and self-media brought their superiority of space and time into full play to gain the power of the first-level agenda setting on Weibo. They effectively spread the news of the Shanxi extreme rainstorm from the perspective of "quantity". By capitalizing on the unique superiority of emotional issues in second-level agenda setting, targeted "calls for help" were sent to government media outlets such as Shanxi Daily to ensure the "quality" of public opinion. Shanxi Daily promptly responded, attentively heeding people's voices and actively intervening in crisis resolution. The combined efforts of both entities infused positive energy into the response to this rainstorm disaster. Moreover, especially for local government media, this event can serve as a source of inspiration, providing valuable references for similar circumstances in the future.

The prevention of any delays in the coverage of local government media is of primary importance. Following a disaster event, the public is eager to access official research assessments, gain a thorough understanding of the situation, and be informed about

rescue plans. This necessitates government media personnel to maintain information sensitivity, take proactive measures, be the first to uncover and disseminate information, and promptly and accurately release comprehensive, transparent, and factual news updates. However, from October 2 to 6, following the extreme rainstorm, the account of Shanxi Daily on various social platforms only released the official warning, with the majority of the coverage still focused on National Day celebrations. In the aftermath of the disaster, some content from this account still did not consider timeliness. For example, on October 7, multiple posts were made about the disaster situation from October 6 and earlier.

In times of disaster, the exploration and utilization of citizen journalism are also of great importance for government media. This includes making full use of the advantages offered by the public's access to information in terms of space and time. The content published by Shanxi Daily on various social platforms mainly consisted of news gathered on its own and reprints from other official media sources, with a focus on official announcements. However, there was a lack of first-hand, on-the-spot news reports (Wen, 2022). The involvement of the public and their first-hand information can effectively fill this gap. In fact, during a crisis, the public's first-person perspective and feelings can accelerate the spread of issues. Communicating this information effectively is crucial for resolving the crisis.

Conflicts of Interest: The authors declare no conflict of interest.
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