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Original Research Article**Information dissemination and public opinion guidance mechanism of social media communication in emergencies***Xintian Wang**Xi'an FanYi University, Xi 'an, Shaanxi Province, 710105, China*

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**Abstract:** In today's society, emergencies occur frequently, and social media plays an increasingly prominent role in information dissemination and public opinion guidance. This study deeply discusses the characteristics of information transmission of social media communication in emergencies, including fast transmission speed, wide range and multiple subjects. At the same time, it analyzes the mechanism of public opinion guidance, such as the interaction between official and civil forces, information screening and verification mechanism. It aims to reveal how social media can effectively disseminate information and guide public opinion to a positive direction in response to emergencies, so as to improve the ability and stability of society to cope with emergencies.

**Keywords:** Emergency; Social media; Information dissemination; Public opinion guidance; Public participation

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With the rapid development of society, security monitoring plays an increasingly important role in maintaining public safety. The image signal processing technology based on deep learning can significantly improve the intelligence level of the monitoring system, and realize the functions of target detection, behavior recognition and anomaly warning. At the same time, the speed of information dissemination in emergencies is extremely fast, and social media has become one of the main channels for the public to obtain information. How to ensure the authenticity and accuracy of information and avoid the spread of rumors through effective public opinion guidance mechanism has become an important topic of social governance. This study aims to explore the application value of deep learning technology in security monitoring, as well as the information dissemination rules and public opinion guidance strategies of social media in emergencies, so as to provide theoretical support and technical guarantee for building a safer and more stable social environment.

**1. Characteristics of social media information dissemination in emergencies****1.1. Fast and wide range**

In the event of an emergency, social media can quickly spread the news by virtue of its convenient means of communication. For example, in the event of earthquake, fire and other events, the people at the scene can immediately release news through Weibo, wechat and other platforms, and these news can be known by a large number of users almost instantaneously, and the transmission scope is no longer limited to the area around the incident, but can quickly spread throughout the country and even the world. This is the traditional media can not match the speed and breadth of communication.

**1.2. Diversification of communication subjects**

In the social media environment, anyone can be a communicator of information. In the traditional media era, only journalists, editors and other professionals dominate information dissemination. Ordinary people, social organizations, enterprises, etc., can release information in emergencies. For example, during the flood disaster, the affected people can share their disaster situation, rescue volunteers can publish the rescue progress,

and enterprises can also publish information such as donated materials. This kind of diversified communication subject makes the information source more abundant, but also easily causes the information clutter.

### **1.3. Information fragmentation**

Messages on social media tend to be short and fragmented. When users publish information about emergencies, they may simply describe a scene and a feeling they see, lacking comprehensiveness and systematism. For example, in the communication of a traffic accident, some users may only publish the tragic photos of the vehicle after the collision, without detailed information such as the specific time and place of the accident, which requires the audience to piece together the complete event information by themselves, increasing the difficulty of obtaining accurate information.

## **2. The subject of social media public opinion guidance and its role**

### **2.1. Leading role of official institutions**

Official institutions are authoritative and dominant in social media public opinion guidance. After an emergency occurs, government departments, professional rescue organizations and other official agencies release accurate information through social media in a timely manner, which can stabilize people's emotions. For example, when the health department releases official information such as the spread of the epidemic and prevention and control measures on Weibo during the outbreak of infectious diseases, the public will trust the information more and respond according to the official guidance. Official agencies can also use social media to dispel rumors and prevent false information from causing social panic<sup>[1]</sup>.

### **2.2. The bridging role of media organizations**

Traditional media and emerging network media organizations play a bridging role in social media public opinion guidance. On the one hand, they collect information on social media, sift out valuable content for in-depth reporting, and on the other hand, disseminate official information and professional interpretations to social media in a more accessible way. For example, news websites will interpret the emergency response policies issued by the government and publish them on social media platforms in the form of pictures and pictures, so that more people can understand the connotation of the policies and promote the communication and interaction between the authorities and the public.

### **2.3. Influence of opinion leaders**

Opinion leaders play an important role in social media public opinion guidance. These opinion leaders include well-known scholars, network V and so on. They have a large number of fans and followers, and their opinions and attitudes can influence the opinions of fans during emergencies. For example, a well-known scholar's analysis and suggestions on environmental emergencies on social media will guide his fans' attention direction and thinking Angle on the event. But opinion leaders also need to be responsible for what they say and avoid spreading misinformation or bad information.

## **3. The mechanism of social media information dissemination and public opinion guidance**

### **3.1. Information screening and verification mechanism**

In the sea of information on social media, information screening and verification mechanisms are

crucial. Social media platforms themselves will use a combination of algorithms and manual review to screen information about emergencies. For example, for information about popular events, the platform will prioritize verified official information and authoritative media reports. There are also fact-checking organizations in the private sector that check information on social media and call out misinformation if they find it. This information screening and verification mechanism is helpful to improve the accuracy of information and reduce the spread of rumors<sup>[2]</sup>.

### **3.2. Interaction and feedback mechanisms**

Social media provides a great platform for interaction and feedback. During emergencies, there can be interaction between official agencies, media organizations and the public. After official agencies release information, the public can raise questions and suggestions in the comment section, and the official agencies will respond according to the feedback of the public. This interaction and feedback mechanism allows officials to better understand the needs and concerns of the people and adjust their response strategies in a timely manner. Media organizations can also adjust the direction and focus of their reports based on public feedback, so as to make their reports more targeted and effective.

### **3.3. Topic setting and agenda guidance mechanism**

Topic setting is an important means of social media public opinion guidance. In emergencies, official agencies, media organizations and opinion leaders can guide public opinion by setting topics. For example, during the rescue of natural disasters, the official can set up positive topics such as “rescue heroes” and “mutual assistance of the affected people” to guide the public to pay attention to the positive energy side and avoid overly focusing on the tragedy of the disaster. Through topic setting, people’s attention can be attracted to a specific direction, so as to achieve the purpose of agenda guidance<sup>[3]</sup>.

## **4. Challenges and coping strategies faced by social media information dissemination and public opinion guidance**

### **4.1. Challenges faced**

The first is the spread of rumors. Due to the diversity of social media communication subjects and the rapidity of information transmission, rumors are easy to breed and spread. For example, in emergencies, rumors such as false casualty figures and cause analysis may spread rapidly, causing social panic. Second is the problem of information overload. A lot of information comes out on social media, and it is difficult for people to sift out useful information in a short time. Conflicts of interest between different subjects may also affect the effect of public opinion guidance, for example, enterprises may release some information with commercial purposes in emergencies for their own interests, interfering with the normal direction of public opinion<sup>[4]</sup>.

### **4.2. Coping strategies**

For the spread of rumors, it is necessary to strengthen the verification of information and refute rumors. Official agencies, media organizations and social media platforms should work together to clarify rumors as soon as they are discovered. For the problem of information overload, big data and artificial intelligence technology can be used to classify and screen information, and provide personalized information recommendations for the public. In view of the conflicts of interest of different entities, relevant laws and regulations and industry norms should be established and improved to restrain the behavior of all parties and ensure that public opinion guidance

develops in a positive and healthy direction. It is also necessary to improve people's media literacy, so that people can better distinguish the truth and value of information<sup>[5]</sup>.

## 5. Conclusion

Social media communication in emergencies has unique characteristics, subjects and mechanisms in terms of information dissemination and public opinion guidance. Although faced with many challenges, but through effective coping strategies, can give full play to its positive role. In the future, as technology continues to evolve, social media will play an even more important role in emergencies. We need to constantly improve the information dissemination and public opinion guidance mechanism, strengthen cooperation among all parties, and improve the media literacy of the people, so as to better respond to emergencies and maintain social stability and development. Official agencies should continuously improve their ability to release information and guide public opinion on social media, media organizations should better play a role as a bridge, opinion leaders should enhance their sense of social responsibility, and the public should actively participate in information dissemination and supervision of public opinion, so as to jointly build a healthy and orderly public opinion environment on social media.

## About the author

Wang Xintian (March 10, 2003 --) Male, native place: Xi 'an, Shaanxi Province, education: Bachelor's degree, professional title: none, research direction: Media information

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