Research on the Construction of Early Warning Index System of Network Public Opinion Emergency Based on Computer Simulation

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Abstract. Under the current social background of our country, the dissemination environment, dissemination background, audience characteristics, media environment and event types of network public opinion are constantly developing and changing, and the influencing factors will also have new changes. The early warning index system of network public opinion emergencies is an important part of the crisis management of network public opinion. The analysis of network public opinion is based on the complete and accurate grasp of network public opinion. The early warning of network public opinion emergencies is based on the full exploitation and utilization of network public opinion data. Through the analysis and judgment of public opinion, the early warning mechanism of network public opinion emergencies can be improved. Computer simulation is a fast and economical important research tool, and the effectiveness and accuracy of computer simulation depends on the performance of computer simulation software tools. Using computer simulation and simulation of the process of user concept in event propagation, dynamic evolution simulation of events is analyzed according to the results of user concept, and hot events are identified.

1. Introduction
As a product of the new era, while the public share information at any time and anywhere, some radical statements and false information are also spread through the Internet at a terrible speed and in a wide range of dissemination, which is likely to bring many negative impacts on social security and political stability and even social panic [1]. Internet public opinion is a collection of all people's perceptions, attitudes, emotions and behavioral tendencies of the event, which is transmitted through the Internet due to the stimulation of various events [2]. As a new mode of producing, disseminating and exchanging information, social media breaks the inherent functional boundaries between information creators and information receivers, and makes the process of information dissemination and creation and sharing more closely linked [3]. At present, there is no unified concept of public emergencies, but the general view is that public emergencies are sudden occurrences, with a wide range of influence will have a serious impact on the stability of national order [4]. The network has new sensation all the time. The reason why it becomes a lyric has already attracted the attention of some netizens. In addition, the role of the amplifier of the network, regardless of its positive or negative effects, the final result is strengthened. Under the stimulus of an emergency, the network is directed to achieve a certain goal. After a period of experience, the target-guided network
achieves its initial goal, and the refocusing of the network on a specific target will return to
the loose actor union that has nothing to do but meet the fun of the members' social interaction Body [5].

In cyberspace, some minority viewpoints which are not consistent with the mainstream viewpoints will also be concerned when they are published, and form a "spiral of anti-silence" mode of information expression, which is more due to the audience's reverse thinking [6]. The prominent harmfulness of network rumors is mainly manifested in the following aspects: when the government responds to the network doubts caused by network rumors, it often appears that it is unable to respond to them, which leads to a sense of distrust and thus reduces the credibility of the government [7]. The early warning of network public opinion emergencies is an important part and the first line of defense of the crisis management of network public opinion. Therefore, a scientific early warning index system of network public opinion emergencies is constructed to make timely judgments on the current situation and changes of network public opinion and to evaluate the possible development [8]. The computer simulation describes the research object and system according to certain qualification conditions and reasonable assumptions, and abstracts the mathematical analysis model of the research object [9]. Early warning to relevant departments by analyzing potential public opinion crisis. In the process of handling emergency warnings, in the face of network grievances of different levels of structure, through the processing of a large amount of information, network big data that is difficult to grasp, detailed classification. Therefore, this paper has carried out research on the computer simulation of the network public opinion emergency warning indicator system [10].

2. Materials And Methods

2.1 Construction of Early Warning System for Internet Public Opinion Crisis

The early warning mechanism and index system of network public opinion emergencies is a kind of self-organizing mechanism which can prevent and correct bad public opinion and its evolution and diffusion in time across the network space and realistic organizations, so as to achieve the healthy development of network public opinion. Based on the preliminary analysis of the network system, the reasonable hardware and software configuration environment needed by the research institute is designed, and the actual network with specific characteristics is established. Because of the netizens'network activities, the network space has gradually become the focus of social sensitive events and concerns. And with the evolution of the situation, the network will constantly gather the voices of netizens from different fields and strata, and eventually form a wide range of public opinion events. The online public opinion crisis warning index is shown in Table 1. The sensitivity of the people involved in the event theme is different. Generally speaking, the sensitivity changes with time. The higher the sensitivity, the greater the harm. The value of a variable is used to represent the behavior of a feature. The combination of certain elements forms the subsystem, and the subsystem may also contain subsystems, thus forming a hierarchical structure of the model. The structure of the model as a whole includes the relationship of interactions and the relationship of each other.

| Factor                  | Coefficient |
|-------------------------|-------------|
| Public Opinion          | 0.32        |
| Subject sensitivity     |             |
| Risk                        | Tendency of Internet Names | 0.25 |
|-----------------------------|----------------------------|------|
| Diffusion of Public Opinion | Change Rate of Public Opinion Search | 0.29 |
|                             | Change rate of public opinion release | 0.38 |
| Public opinion fever        | Public opinion search volume | 0.41 |
|                             | Publication of Public Opinion | 0.36 |

2.2 Computer simulation and public opinion network

The early warning of network public opinion should ultimately serve the decision-making of the relevant functional departments. Therefore, the indicators set should be indicators that can reflect the current development and evolution trend of network public opinion and other objective trends. Through a wide range of information capture, and then through data monitoring, early warning detection and other information collection methods to screen, so that the early warning collection system captured by the emergency information can form a large-scale, multi-level comprehensive system, for the follow-up targeted emergency early warning data security. Further increase the degree of alienation of public opinion and other indicators. It is very suitable to deal with the practical problems with complex internal mechanism, non-linearity and global characteristics when computer simulation is applied to the early warning of online rumor crisis. The users in the public opinion network are regarded as the moving elements in the belief space. They find the most suitable position according to their own experience and the process of social learning. Let an event get a total of n samples, corresponding to the sample attributes; if each sample is taken as a value, the event attributes set of attributes is generated according to the inverse attribute value generation algorithm. Under certain conditions, the two can transform each other, and the result of one event may be transformed into the cause of another. Causal connection is inherent in the objective thing itself. It exists outside the consciousness of the person and is not transferred by the will of the person.

In the realization of computer simulation, the validity and accuracy of simulation results depend on the establishment and configuration of the model, so the establishment of the model is the basis of computer simulation research. It is necessary to establish an emergency command and disposal system. When an alarm appears, the system starts a certain level of emergency state according to the setting of the plan, and handles the crisis of network public opinion scientifically and reasonably. There is only one negative bond in the closed loop of public opinion sensitivity, so it is a negative feedback structure. The increase of the spread of public opinion has aroused the increasing concern of the government. The government then strengthens its action by taking appropriate legal measures and formulating laws and regulations, thereby reducing the spread of public opinion. Triggering incidents provide an effective ignition point for the emotional and psychological vent of netizens, and the news value and topic characteristics of the incidents themselves also have an important impact on the popularity and sustainability of public opinion. Calculating the similarity and finding the
standardization closest to the comprehensive value of the event, the police level corresponding to the standard is the early warning level of the network sudden group event. The lyric network was divided into different opinion centers. By using the lyric network as the user's concept space, the user can be regarded as the molecule of the movement in the space, and the molecule is driven by different values and social views to find the position of the concept that best suits its own nature. Although increasing the hidden layer can improve the network accuracy and reduce the error, it also complicates the network and reduces the learning rate of the network.

3. Result Analysis and Discussion

3.1 Relevance Analysis of Influencing Factors in the Evolution of Network Public Opinion

On the Internet, netizens react differently to various events. Therefore, it is not scientific to regard the impact of various events and phenomena on netizens' words and behaviors as equally important. To analyze and evaluate the possible causes of the outbreak of events, and to clarify the primary and secondary. The analysis of public opinion emergencies is based on the authenticity and reliability of the information collected by the early warning collection system. Through the comprehensive evaluation of different aspects of the emergencies, we can get the assessment report of the severity of the emergencies, taking into account the process and results of their occurrence. In the initial stage of emergencies, because of the asymmetry of information and the lack of real information, the attitude of public opinion in the network is not obvious, and most netizens are in the process of finding real answers. And as time goes by, the event becomes more and more clear. Figure 1 shows the correlation analysis results of the structural incentives, network media mobility, and network media interaction. To achieve the purpose of feature selection, it can be widely applied to simulation improvement and selection. It is a relatively straightforward feature selection method to realize the variable selection while estimating the parameters, which can enhance the prediction accuracy of the simulation.

![Image of graph](image.png)

**Fig.1. Incentive correlation analysis**

3.2 Differentiation and Characteristics of Evolution Stages of Network Public Opinion in Public Emergencies

In the public opinion network, the Internet users are the main body to promote the spread of
events, and the network public opinion is a reflection of the political attitude of the Internet users. Previous studies have pointed out that the attitude of netizens towards emergencies is a transitional stage from perceptual to rational. The simulation configuration parameters are stored in the database or data file; when computer simulation is carried out, the simulation program extracts the parameters in the running process and generates the corresponding computer simulation; when the computer simulation process ends, the topology configuration still exists. Network public opinion is changeable, we should pay attention to modifying and improving the early warning system at any time to avoid delayed or excessive response due to design problems, and at the same time, we should regularly maintain early warning equipment and update early warning technology. Individuals know little about the event-related content and need to obtain a large amount of information in a short time. Therefore, they will form information needs and widely accept the information or opinions disseminated by others, so their cognitive behavior and emotional opinions will be affected to a certain extent. Due to the network media and social background that facilitate information dissemination, the news value of the triggering event itself and the type of event will ignite the attention of netizens. Different levels of alarms represent the corresponding urgency of an emergency, and with corresponding characterization, it represents the alert level of the network burst group event. The early warning countermeasure function is an auxiliary measure. By providing corresponding measures for decision makers, it provides management for decision-makers, reduces the possibility of mistakes, and guides decision makers to develop in an efficient and effective direction.

4. Conclusion
In this paper, the construction of early warning index system for network public opinion emergencies simulated by computer is studied. The root cause of emergencies network rumors lies in the unequal demand of public information and the speed of authoritative information release. As the main publisher of authoritative information, government and media are very important for the prevention and resolution of emergencies network rumors. When relevant reports about an event appear on the network, the system collects data, extracts the number of participants and user perceptions in the public opinion network, and establishes computer
simulation. Computer simulation enables users to arbitrarily select and modify the parameters and ranges of acquisition, sample at any node of the analog network, set threshold-based alarms, set detection routines, etc. Construct the legal framework system of network public opinion emergency management. We should carry out administration according to law and strive to standardize, institutionalize and legalize the early warning and emergency treatment of network public opinion emergencies. It can give full play to the advantages of computer simulation theory in dealing with multi-level conversion of event "qualitative-quantitative-qualitative", realizing the real-time, intelligent, simple and easy-to-understand information of network public opinion, facilitating the practical significance of practical application and exploring other scholars' research. Vision and ideas. Through effective data processing, the early warning decision is placed at the core position, and the public opinion warning information is released through various means; the execution of the public opinion early warning system is to provide information and solutions for the social management level through effective analysis and systematic evaluation. Formulate and provide a theoretical basis.

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