

A Review of the Literature on the Spread and Governance of Online Rumors in Chinese Social Media

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Abstract: In China, with the rapid development of Internet technology and social media, media technology has given Internet users more discourse power, which not only provides a platform for rumors to breed, but also becomes an amplifier for rumors to spread rapidly. At the same time, with the changing pattern of social media information dissemination, rumors are also spreading with new trends and producing many negative effects. This paper reviews rumor propagation on social media in China, firstly, introducing the current situation of rumor research in social media; secondly, introducing the characteristics, causes and effects of rumor propagation in social media; finally, summarizing and outlook on strategies and problems of rumor management in social media.

Keywords: Internet rumors, Dissemination, Governance.

1. Introduction

Social media is the communication, sharing and other activities between people through social media. In China, the more popular social media include QQ, Weibo, WeChat, and Jitterbug short videos. At present, the study of social media is becoming more and more popular in Chinese academia, but the specific concept of social media is still under discussion. Anthony Mayfield defines social media as "a new type of online media that gives users great space for participation, openness, communication, dialogue, community, and connectivity[1]. In addition, communication scholars Andre Kepler and Michael Heinlein define social media as "a series of web applications based on technologies and ideologies that allow users to produce their own content creation and communication.[2]

From the definitions of social media listed above, social media is mainly a kind of interpersonal relationship, where users are free to choose their own friendship circle, a very typical circle culture. This shows that the control of rumors can no longer be simply put on the level of information processing, but should be considered as a complex culture and controlled from a socio-cultural perspective.

In his book *Communication as Culture*, American communication scholar James Carey divides communication into two aspects: the transmission view and the ritual view of communication. The ritual view is Carey's transcendence of communication as a transmission view. His definition of information transmission goes beyond this characteristic of transmission of information and leads communication to a socio-cultural dimension[3]. Therefore, after the rumor spreads beyond the simple level of information transmission, it is difficult to stop the group emotional contagion under this ritualistic view, even if the authoritative information is made public and disproved in the first place. In particular, rumors spread in social media, both the disseminators and the recipients have their own psychological tendencies. For rumors spread in specific events, the audiences in social media instead form a group force with their own emotions, moral views, and position perceptions, and in the process of rumor spread, they are not concerned with the truth, but their own emotions and positions in group behavior and aggregate

behavior, etc.

2. Current Status of Domestic Research on Rumors in Social Media

Compared with developed countries in Europe and the United States, although China's social media started late, it is developing rapidly. According to the 50th Statistical Report on the Development of China's Internet, as of June 2022, the size of China's Internet users was 1.051 billion, and the Internet penetration rate reached 74.4%. Among them, the user scale of short videos in China has grown the most significantly, reaching 962 million, accounting for 91.5% of Internet users as a whole[4]. In China, the rising usage of social media, represented by WeChat, Weibo, and Jitterbug short videos, has provided more convenience for people to obtain and share information, but the spread of online rumors in social media has also become a special social phenomenon due to the lack of rumor recognition ability of users and the asymmetry of rumor response mechanism in the technical field.

Research on online rumors in social media in China is mainly focused on the fields of communication, intelligence, computer science and social psychology. However, compared to other countries in the world, the research on online rumors in China has been relatively slow, and the research on online rumors in China is a bit narrow compared to other countries in the world where the research has already formed a system. Even though more and more Chinese authorities and experts and scholars are paying attention to online rumors, and more and more research articles and reports on online rumors have been published to study them in depth in terms of content definition, communication characteristics, rumor classification, reasons of communication, communication mechanism and self-cleaning mechanism, most of them have a common problem that they are limited to theories but lack specific comparative analysis of communication channels and content analysis of rumors. Zhou Yuqiong, in his article "Not to eliminate Internet rumors fundamentally, but to improve the "immunity" of the whole society to Internet rumors - An academic investigation of "Internet rumors"', has suggested that "The empirical studies and theoretical explorations

conducted by academics are obviously insufficient in relation to the endless online rumors in contemporary Chinese society. Most of the existing rumor studies are based on the determination of rumors as "harmful information", analyzing their propagation patterns and social impacts around specific cases (mostly crisis events), and finally giving recommendations on how to "get rid of them before they are quickly dispelled". [5]

However, this lack of empirical research, which was limited to theoretical inquiry, has changed significantly since the outbreak of the New Guinea epidemic in 2020. Since the outbreak of the New Crown epidemic, there has been a proliferation of articles examining the spread of online rumors in the context of the epidemic on a case-by-case basis. Compared to the SARS era in 2003, social media has developed qualitatively in Chinese society, so that online rumors triggered by the occurrence of the New Crown epidemic have been pervasive on social media, even presenting social network public opinion in a period of time to reverse social governance issues[6]. At this point, Chinese academics have entered a new stage of research attention to online rumors.

3. Research on the Dissemination Mechanism of Rumors in Social Media

Based on a large number of rumor cases published by the official account of "Weibo Disinformation" and the official public number of "Rumor Filter", a former researcher summarized online rumors into the following types based on in-depth analysis: social rumors, policy and regulation rumors, scientific and general knowledge rumors, celebrity entertainment rumors, official and police related rumors, foreign related rumors, and rumors against social platforms themselves. The following types of rumors can be found: social rumors, policy and regulation rumors, general knowledge rumors, celebrity entertainment rumors, official and police rumors, foreign rumors, and rumors about the social media platform itself[7]. The above types are the most common ones in daily life and the ones that have the greatest impact on the public, and there are common patterns in their spread, causes and effects.

3.1. Characteristics of rumor spreading

3.1.1. Hard to distinguish true from false, confusing

The text of some Internet rumors is filled with a large number of figures and various pictures that do not seem to be related to the main idea of the article, various exclamation marks and tone words and adjectives, and the article layout is maverick and fancy to attract people's attention, and the final conclusion of such articles is very scary, but the process of proof is not given to specific experts and scholars. The usual tricks of these WeChat rumor makers will, to a certain extent, make the content of the text seem to be very reasonable, and the various data and theories interspersed during the period appear to be very convincing, so that the majority of Internet users "have to believe" in the face of this information.

3.1.2. Novelty and strong incitement

The titles of some Internet rumors are striking, mostly with words that are sensational or deliberately exaggerated and inflammatory. These headlines attract the attention of netizens in this way, evoke their empathy through malicious exaggeration, and encourage them to share and forward.

3.1.3. Rapid dissemination and great harm

The Internet connects Internet users all over the world, and rumors appearing in a certain place can be quickly spread to every Internet user by the flood of information on the Internet. Due to the openness of the Internet, anyone can have access to all kinds of information. In view of the different information differentiation abilities of each person, a considerable number of people will believe in false information on the Internet, and thus willingly act as the spreaders of Internet rumors. When Internet rumors spread from the Internet to the real society, some rumors can cause great damage to the politics, economy and culture of the real society, seriously endangering the stability of the society and posing a great threat to people's production and life.

3.1.4. Rendering feelings and exploiting people's psychology

Some Internet rumors take advantage of the sympathy psychology of the public, and the contents are mostly based on the rendering of emotions and the vulnerable groups, so as to reduce the public's doubts about their authenticity. The content of these rumors also includes specific scenarios, making it difficult to doubt their authenticity. The harm caused by the proliferation of such rumors is not only the serious waste of social resources, but also, sadly, the deception of the general public's emotions.

3.1.5. Diversified sources, difficult to check the source

Compared with traditional websites and forums where the source of information is reproduced or original, the source of Internet rumors is much more complicated. One important reason is that Internet users have the characteristic of anonymity, and even though the current state vigorously advocates the real-name system, there are still problems of leakage and fake IPs, which makes it difficult to dig out the source of some Internet rumors. In addition, Internet users are free to delete the information they have already posted on social media, which can also make it difficult to inquire about the source of online rumors.

3.1.6. Decentralized communication and long existence cycle

In social media, as long as one has a certain amount of followers, one can cash in on the traffic. Everyone may become the center of communication. This makes it possible for a large number of nodes to exist in the process of spreading rumors, and even if one of these nodes is blocked or withdraws, it will not affect the sustainability of the spread of rumors. In addition, in the process of spreading rumors, the handover of information between each node can be completed instantly. The one-click forwarding function of social media can spread rumors on the Internet radially, spreading to the whole Internet platform in a short period of time and producing a huge social impact.

3.2. Motivation of rumor spreading

Rumors in social media can be mainly attributed to the following five factors: first, the non-conventional communication mechanism is active, and authoritative information is missing and lagging; second, the trend of socialization of traditional media has reduced trust; third, the low threshold of social media and the lack of information gatekeepers; fourth, Internet users are influenced by social psychology such as network anonymity, group implication, group infection, and group pressure; fifth, the rapid development of social culture has led to various conflicts as a

catalyst. Fifth, the rapid development of social and cultural aspects has triggered various kinds of conflicts as a "catalyst".

3.2.1. Activation of extraordinary communication mechanism, lack of authoritative information and lagging behind

Social media often spreads distant words from certain public crisis events. When major emergencies occur in society, people are extremely uncertain inside and are always eager to know the progress of events and express their opinions. Due to the ease of use, high speed and efficiency of social media, it is easy for people to focus their attention on social media, spreading a lot of information and forming topics. After an emergency event, the network information explosion, people are in a collective unconscious state, it is easy to occur extraordinary social collection behavior. At this time, the normal social communication system is weakened and the extraordinary communication mechanism is active. People are in a state of numbness to the information released by newspapers, TV and other mass communication media, and are more likely to believe in some gossip instead.

3.2.2. The trend of socialization of traditional media and the decrease of trust

The rise and widespread use of social media has attracted a large number of traditional media users, especially most young users, to turn to the Internet and social media platforms. The whole social communication system has also become increasingly socialized, relationalized and networked along with the development of social media[8]. Social media provides a new communication platform for individual Internet users, who can express their views anytime and anywhere, and can express their opinions on social events and form certain topics. This circle culture exhibited by social media can easily mobilize members' emotions and bring them together, which not only expands the discourse of general audiences, but also provides traditional media with a new development platform and development path. At present, Chinese traditional media have also opened social accounts, from the source of selected topics, content production to information release have been profoundly influenced by social media, the processing of information tends to be more and more superficial, which makes the image of traditional media itself adversely affected, and the trust in the audience's mind has decreased.

3.2.3. Low threshold of social media and lack of information gatekeepers

In the era of prevalent social media, everyone can be a member of the network users and everyone is a disseminator of information. As long as users register their accounts, they can become a member of social media platforms, publishers and disseminators of information, express their opinions and have freedom in the largest sense. Due to the low threshold and ease of use, there are so many speculators that social media platforms make individuals submerged in the group and loosen the constraints on themselves. Rumor spreaders either want to gain attention and gain virtual satisfaction or defame each other for economic purposes and profit claims.

3.2.4. Social psychological roots of rumor formation in social media

When a major crisis event occurs in society, the social environment is very uncertain, and the uncertainty of the group can easily trigger aggregation behavior. In the aggregate behavior, the principle of anonymity makes individuals disappear in the crowd, and no one knows the

name and identity of the other party, so individuals are in a state of anonymity without social binding. The individual, under the domination of a "lawlessness" mentality, commits all sorts of acts that give vent to primitive instincts. In the collective unconscious state, once information is disseminated in the process of forming some kind of collective behavior, then it is not only in the simple sense of information transmission, at this time, the main influence by the factors behind the propagation of information, namely, the dissemination of emotions or positions[9]. This group implication and infection mechanism can easily make individuals lack rationality and provide space for rumors to spread.

3.2.5. Socio-cultural factors of rumor spreading in social media

The spread of rumors in social media is not only influenced by its objective factors and the psychological mechanism of the audience, but also has a close relationship with the social environment and socio-cultural factors we are currently living in in the new media era.

China is currently in a new period of rapid economic development, and various social conflicts are emerging and intertwined. The existence of a small problem in society can trigger undesirable provocations as well as malicious attacks. Especially in the face of some national catastrophic events, there are always complex negative emotions in the social groups, which are very likely to trigger irrational behavior of the groups. Once they are recognized by the majority of people in their group, this irrational and emotionally tainted information spreads and provides the ground for rumors to grow and flourish. The spread of Internet rumors is not just simple information transmission, but has formed a complex social phenomenon.

3.3. Impact of rumor spreading

3.3.1. Endangering social stability and increasing public panic

The proliferation of Internet rumors in the social media environment can cause social unrest and intensify people's panic. As long as cell phones are in hand, everyone can receive all kinds of information on the Internet and pay attention to all kinds of issues through mobile networks, while expressing their own opinions on various information and forwarding them again, or setting their own issues to make a certain information in society become the focus of attention again. With the help of various social media on the Internet, a huge number of Internet users are acting as reporters, expressing their opinions on social events all the time, and the Internet is filled with all kinds of information and opinions, creating a huge online opinion field. A direct consequence of this is the increasing blurring of the boundaries between the online and offline worlds, and the consequence of mixing the virtual and real worlds is that the online world can easily lead to contradictions in the real world[10]. Based on a hot social event in the real world, distorting the facts and uploading them to the Internet, such irresponsible remarks are very likely to trigger social unrest, mislead the public, provoke social conflicts and cause social panic.

3.3.2. Aggravate social contradictions and cause trust crisis

Some online rumors in the social media environment cater to the psychological needs of the public, and before the truth is confirmed by the authorities, these rumors can easily intensify social conflicts and cause a social trust crisis[11].

Especially in the case of public emergencies, people's psychological capacity is extremely fragile and vulnerable to the erosion of certain undesirable information. Internet rumor makers take advantage of people's psychological insecurity or repressed psychology to deliberately fabricate and spread inflammatory information to confuse people. With the help of modern online social media, these messages are directly displayed in front of the public, and uninformed netizens are easily encouraged by the inflammatory messages to develop into social mass incidents, which pose a great threat to social security and the safety of people's lives and properties.

In fact, a large number of network rumors are generated with the help of hot events that happen in society. Whenever there are disturbing events in society and the transparency of the events is relatively low, network rumors will be generated, which confuse the people and cover up the truth of the events, so that the uninformed people believe the truth, thus causing a huge social trust crisis and a huge impact on the orderly social order.

3.3.3. Disrupting social order and damaging national image

Most of the online rumors in the social media environment maliciously fabricate facts and prevail on the network with a gesture of creating something out of nothing, which seriously interferes with the order of cyberspace and the real social order, and even causes great negative impact on the image of the country in serious cases. [12]

The harm of Internet rumors to the society is quite universal, and the proliferation of Internet rumors will cause serious negative impact on the social order and the image of the country in any country. Driven by the notion of profit, deliberate fabrication of facts, malicious dissemination of false information, and spreading of false online information have become an industry. With the Internet as an efficient, convenient and anonymous information dissemination channel, this industry of creating and spreading online rumors has pervaded the entire Internet space.

4. Research on the Governance of Rumor Propagation in Social Media

Most of the studies on rumor management strategies in China also put forward online rumor management strategies from a macro perspective, including the improvement of laws and regulations, timely release of official authoritative information to dispel rumors, enhancement of media literacy of Internet users, and strengthening of online rumor identification technology. For example, Chao naipeng divided the control mechanism of Internet rumors into two categories[13]: hard control and soft control, where hard control includes technical control and legal control; soft control includes ethics, morality, beliefs and convictions, social opinion and public relations means. On the basis of sorting out the methods and measures of Internet rumor control in the United States and the United Kingdom, Xu pingput forward suggestions for Internet rumor control in China, namely, constructing a legal system and carrying out control according to law; advocating behavioral self-regulation and co-managing Internet problems; opening up Avenue information and stopping rumors from being public; establishing Internet ethics and maintaining Internet order; and developing Internet technology and relying on technological management[14]. Kong zeming and Zhen xiangyu believe that measures for prevention and governance

of online rumors in the social media era include: improving the government information release mechanism, strengthening the standardization of network technology, establishing sound network communication laws and regulations, and focusing on network media literacy education[15]. As for the strategy of WeChat rumor management, Pang haiyin proposes the following countermeasures: clarify the special nature of WeChat rumor management, prevent the "Tacitus trap", guarantee legal management, publish authoritative information in a timely manner, achieve twice the result with half the effort with technical management, and improve the media literacy of netizens[16]. To sum up, the management of Internet rumors can be started from the following aspects:

4.1. Strengthen the self-discipline of Internet users and improve media literacy

Enhancing the ability of ordinary Internet users to distinguish information on the Internet and developing good habits of consciously resisting Internet rumors cannot be achieved without the joint efforts of society and individuals. When Internet rumors are generated and widely spread, the elites in society should refute them consciously according to their knowledge and ability, so that the truth of Internet rumors can be made known to the public in time and more ordinary Internet users can be prevented from being cheated. As an ordinary Internet user, one should keep a clear head in the face of all kinds of information on the Internet and not to blindly believe any Internet rumors. This requires Internet users to make full use of their own knowledge reserves and life experience to deduce and infer information on the Internet and verify the truth or falsity of their information, so as to continuously improve their ability to identify information on the Internet.

4.2. Strengthen the sense of responsibility of media and call for industry restraint

Rumors stop at responsibility, so we should strengthen the role of new media "gatekeepers" and monitor false statements on their own platforms in real time. The social media, mainly microblogs and weibo, should increase the supervision of their own information, further expand the scale of disinformation work, and timely disinformation of rumors on the network, rather than simply blocking them. In addition, they should also cooperate with more authoritative media platforms, universities and research and education institutions to improve their ability to monitor and combat online rumors. In the Internet era, only if rumors are nipped in the bud, so that the network rumors lose the environment for further dissemination, then the network social ecology will naturally become clearer and clearer.

4.3. Enhance the government's control ability and improve the corresponding rumor recognition and disinformation mechanism

Rumors stop at the truth. The government should make important events transparent, timely and openly announced to the society, and enhance the ability to dispel rumors. Firstly, improve the authority and service of social media platforms and continuously improve the mechanism of disinformation on the platforms; secondly, speed up and improve the work of monitoring network public opinion and improve the work of monitoring and research and judgment of network public

opinion; finally, increase the efforts to combat network rumors, strictly punish the illegal acts of network rumor makers and further improve the mechanism of handling network emergencies.

4.4. Strengthen network legislation and raise the legal cost of network rumors

In the face of various problems in network development, it is imperative to strengthen network legislation. If we ignore all kinds of rumors and rumor-mongering behaviors on the network, an inevitable result is that more and more people will join the army of network rumor-mongering in order to satisfy their own selfish desires. Given the current situation of endless online rumors in today's online society, there is a need to establish and improve the laws and legislation of the online society to further regulate the behavior of online self-media for information dissemination. At the same time, online social media platforms are urged to strengthen self-discipline and formulate relevant industry laws and regulations for supervision to promote more mature, standardized and legal operation of social media platforms. In addition, legislation is also needed to further increase the legal price to be paid by individuals who spread rumors on the Internet.

5. Problems with Rumor Research in Chinese Social Media

5.1. Lack of rumor management research in a truly interdisciplinary sense

At present, the research on online rumors in China involves many disciplines such as journalism and communication, library and intelligence, sociology, psychology, computer science and technology, and law, etc. Each discipline focuses on a certain aspect of online rumors, for example, researchers in the field of journalism and communication mostly explore the transmission characteristics and modes of online rumors from a qualitative perspective, researchers in the field of computer science and technology mostly study the transmission models of online rumors from a quantitative perspective, and researchers in the field of sociology mostly explore the macro social influences on the formation of online rumors. Researchers in the field of computer science and technology have mostly investigated the transmission models of online rumors from a quantitative perspective, while researchers in the field of sociology have mostly explored the macro social influences and micro social-psychological factors in the formation of online rumors. Each discipline has its own research perspective and lacks interdisciplinary cooperation. For example, there are many theoretical studies on the governance of online rumors in various disciplines. Even though there are differences in disciplinary attributes, almost all of them return to the level of "netizens, society, and government", and there is a lack of cross-disciplinary research on rumor management. There is a lack of comprehensive suggestions or strategies proposed by cross-disciplinary research.

5.2. More qualitative studies, but no quantitative studies

The research methods used in the existing Chinese literature are mainly descriptive and qualitative, and most of them stay in theoretical discussions, such as the definition of the connotation and characteristics of rumors, the description

of the hazards of online rumors, and the countermeasures of online rumor management. In contrast, in comparison with other countries' online rumor studies, the research methods are mostly quantitative, presenting more quantitative research, whether it is the measurement of the influencing factors of online rumor generation and propagation, or the modeling of the dynamic process of online rumor propagation.

6. Conclusion

In recent years, social media, represented by microblogs, weibo, and shaky videos, have become the main forum for rumor propagation in China. Strengthening the research on the formation mechanism, communication behavior, communication motives, and communication models of social media rumors can better provide reference for the government to appropriately monitor and guide the current communication behavior of online rumors. Therefore, social media rumors will become an important direction for future research on online rumors, especially as social media technologies continue to be updated and iterated, the characterization and suppression strategies of online rumor propagation are also constantly changing.

However, the management of online rumors in the social media environment cannot be completed overnight, and the various preventive measures that may be taken may not be effective in the short term, but a clear understanding of the complexity of online rumors in the social media environment based on comprehensive analysis and consideration will undoubtedly provide some scientific explanations for the current proliferation of online rumors and make some prospective and positive measures to ultimately reduce the harm of online rumors. Some prospective and positive measures can be taken to reduce the harm of online rumors.

In conclusion, there is still a long way to go to manage online rumors in the social media environment, and only active responses can minimize their harm.

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References

- [1] Vahed Qazvinian, Dragomir R Radev, Emily Rosengren. Rumorhas it: identifying misinformation in microblogs[C]. Proceed-ings of the 2011 Conference on Empirical Methods in NaturalLanguage Processing, 2011.
- [2] Kwon S, Cha M, Jung K, et al.Prominent features of rumor propagation in online social media[C].Proceedings of the 13thIEEE International Conference on Data Mining, 2013.
- [3] James Carey. Communication as Culture [M], translated by Ding Wei, Beijing: Huaxia Publishing House, 2005.
- [4] The 50th Statistical Report on the Development Status of the Internet in China .<https://www.cnnic.cn/n4/2022/0914/c88-10226.html>
- [5] Zhou Yuqiong. Are Rumors Always a Flood? --Reflections Based on Literature Review and Empirical Research [J]. International Journalism. 2009.(8)
- [6] Zhou Maojun, Du Yongxin . Rumor propagation and collaborative management mechanism in major public emergencies--a study of rumor information during the New Crown pneumonia epidemic [J]. Media Watch.2020(9).

- [7] Liu Qi. Transmutation and Reconstruction of Public Opinion Gate-keeping Model in the Era of Big Data [J]. Media, 2017 (1).
- [8] Ren Yiqi. Research on the evolution mechanism of microblog rumors [D]. Master's thesis, Huazhong University of Science and Technology. 2012.12
- [9] Yang Lei. Research on Internet group communication in the new media environment [J]. Contemporary Communication, 2018 (1).
- [10] Yang Kang, Yang Chao, Zhu Qinghua . Public information of public health emergencies based on social media Demand and Crisis Governance Research [J]. Intelligence Theory and Practice, 2021, 44(3).
- [11] Ma xiaoping. Rumor Propagation and Government Governance in Social Media [J]. Social Governance, 2021
- [12] Yu, Shujing, Jing, Xuemin. Political Communication and Its Governance in China in the Era of Self-Media [J]. Social Science, 2020 (5).
- [13] Chao Nai-Peng. A study of rumor phenomenon in Huang Xian's network communication [J]. Theory and Exploration. 2004.
- [14] Xu P, Fu B. Research on the propagation mechanism and treatment path of Internet rumors [J]. Journal of Harbin Institute of Technology (Social Science Edition), 2020, 22(05)
- [15] ong Zeming, Zheng Hengyu. Exploring the dissemination mechanism of social media rumors [J]. Picking and Writing Editorial, 2017(03).
- [16] Pang Haiyin , Li Zhen . WeChat friend circle culture and media literacy [J]. Media, 2020,(17)