

Research on the Influencing Factors of Correcting False News Behavior

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Abstract. The global spread of false news has constituted a severe social trust crisis. Based on the literature review method, this paper systematically integrates empirical research and theoretical achievements to analyze the influence mechanism of public correction behaviors (comment refutation, reposting (rumor refutation), reporting, etc.). The study finds that correction behaviors are influenced by three interactive dimensions: individual internal drives (media literacy, moral responsibility), information content characteristics (stakeholder relevance, emotional appeal), and external environmental support (platform design, community atmosphere). Typical cases show that health-related rumors (such as "vaccines cause infertility") rely on professional group intervention, while social event rumors (such as malignant crime rumors) depend on regional social networks for spontaneous clarification. Constructing an "individual-platform-society" collaborative governance system through literacy improvement (media education), technological empowerment (rumor database construction), and institutional incentives (public welfare points) can effectively reduce the public's rumor correction costs, providing path support for the construction of a "clear cyberspace".

Keywords: false news, correction behavior, media literacy, collaborative governance, cognitive dissonance.

1. Introduction

In contemporary society where information explosion and digital technology are deeply integrated, the proliferation of false news has become a global governance challenge. From the viral spread of false news to commercial fraud, academic misconduct and other behaviors, false information not only erodes the foundation of social trust, but may also lead to economic risks, public safety crises and ethical disorders. Although legal supervision and technical governance means continue to upgrade, there is still a significant gap between individuals' willingness and actual actions to actively correct false news. False news not only disrupts public order but also causes multi-dimensional direct harm to individuals. More alarmingly, the popularization of artificial intelligence technology in recent years has made false news present the trend of "indistinguishable from the real", such as the phenomenon of "fake anchors" that forge news studio scenes, making it difficult for ordinary people to distinguish the authenticity of information, and even causing psychological panic or wrong

decisions due to believing rumors. The large-scale diffusion of false news has become a systematic risk in the information society.

False news spreads in a fission manner through social media. From the food safety rumor of "plastic seaweed" to the health misleading of "vaccines cause infertility", and then to regional social event rumors, the social panic and trust crisis caused by them have become global governance problems [1,2]. In this context, the public's spontaneous correction behaviors (such as commenting and refuting, reposting rumor refutation information) have become the first line of defense to curb the spread of rumors. The explosive application of generative artificial intelligence (AIGC) technology has made the production of false news present an "industrialized" feature. The "double-edged sword" effect of technology is highlighted - AI not only reduces the threshold for forgery and improves the fidelity of content, but also realizes precise push through social robots, forming a closed-loop chain of "lie manufacturing-spreading-cashiering". At the micro level, it induces public irrational behaviors (such as salt grabbing and medicine hoarding) by catering to curiosity psychology and cognitive biases, disturbing social order; at the macro level, it (dissolves) the authority of institutional media and triggers the crisis of "truth desert". The more far-reaching impact is that when AI-forged pictures and videos are difficult to be identified by the naked eye or tools, the boundary between reality and fiction is completely blurred, and the public falls into "universal doubt", doubting both real information and (credulously believing) fabricated narratives, so the foundation of social consensus construction is shaken. China's "Clear Network Action" series of special rectifications are just the institutionalized practice of public participation in governance. Taking the network environment rectification during the Spring Festival in 2025 as an example, the action clearly requires compacting platform responsibilities, control algorithm recommendation, and encourage the public to report "fabricating false information" behaviors, especially to curb rumors in the form of AI fictional social topics and (pretending) "returning hometown (stories)". By systematically combining the research achievements in recent years, this paper aims to reveal the multi-level action mechanism of correction behaviors and provide theoretical support for public participation in information governance.

2. Theoretical foundation and conceptual definition

Relevant scholars point out that false news refers to information that has not been verified by authoritative sources and has a misleading or inflammatory nature, covering types such as health rumors, disaster rumors, and social event rumors. Typical cases include the "Japanese nuclear radiation salt grabbing incident" in 2011 and the rumor of "child traffickers stealing organs in a kindergarten somewhere" in 2023. Its core characteristics include the falsity of content and the misleading nature of communication. According to the harmfulness, it can be divided into three categories. The first is panic-type rumors (such as the "Cambodia blood slave case" causing diplomatic disputes); the second is interest-driven fake news (such as "Qin Lang losing homework in Paris" to gain traffic); the third is caring-type rumors (such as the rumor that "potassium ferrocyanide in salt causes cancer" spreading by taking advantage of kindness).

Regarding the correction behavior of false news, correction behavior refers to the active intervention behavior of individuals to refute, clarify or report false news through media channels. The main forms include pointing out information errors in social media comments (comment refutation), actively sharing official or credible source rumor refutation information (reposting), and marking problematic content through platform functions (reporting false content). For example, during the spread of the "plastic seaweed" rumor in 2022, some users uploaded videos of seaweed production to short video platforms by shooting, refuting the rumor in a visual way, which belongs

to a typical correction behavior. Relevant scholars believe that individual behavior may be driven by the internal motivation of "promoting the well-being of others" [3]. In the context of false news, the correction behavior of some users originates from social responsibility, that is, the altruistic psychology of "not wanting others to be deceived".

The cognitive dissonance theory proposed by relevant scholars points out that when an individual holds two contradictory cognitions (such as "knowing that the rumor is wrong but keeping silent"), he will have psychological discomfort and try to restore balance through behavioral adjustment [4]. A 2023 experimental study showed that among users who witnessed the spread of rumors, 73% of them showed anxiety after "informed silence" for more than 30 minutes, and then relieved cognitive dissonance by reposting rumor refutation information [5].

3. Classified discussion on influencing factors

3.1. Individual internal driving factors

Individual knowledge reserve and media literacy are individual internal driving factors. Groups with higher media literacy (especially information screening and critical thinking ability) and professional knowledge (such as medicine and science) (such as teachers and doctors) are more likely to identify rumors and have the confidence and ability to correct them. A 2022 survey of 1,000 social media users showed that professionals such as teachers and doctors have a 42% higher rumor identification accuracy rate than ordinary users, and their correction behavior incidence rate is 2.3 times that of the latter [6]. Such groups can quickly judge the reliability of information sources (such as distinguishing between authoritative journals and self-media accounts) by virtue of professional knowledge (such as medical and communication backgrounds) and enhance the credibility of rumor refutation through professional expressions (such as data charts and literature references).

Moral responsibility and value orientation will affect people's cognition, and strong social morality drives some users to regard rumor refutation as a civic duty. Psychological studies have shown that individuals with a "public affairs participation tendency" are more likely to incorporate correction behaviors into their "self-concept" and form a stable behavior pattern [7]. Individuals with high moral identity regard rumor refutation as a civic duty. Questionnaires by relevant scholars show that 78% of "active rumor refuters" believe that "resisting rumors is a social responsibility", and their behavior patterns conform to the "public domain participation theory" [2,8]. A typical case is that during the Wuhan epidemic, a community volunteer spontaneously sorted out the "Rumor Identification Manual" and spread it in the owner group, and his behavior motivation originated from the moral mission of "protecting community trust".

3.2. Information content characteristics factors

The scope and severity of public interests involved in false information of stakeholder relevance (Perceived Impact) are key trigger points. When rumors involve public safety (such as epidemics, food safety and natural disasters), the public's willingness to correct is significantly improved. During the Zhengzhou rainstorm in 2021, after the false video of "survivor's self-report in Jingguang Tunnel" was spread, there were more than 50,000 corrective comments within 1 hour, and most users left messages saying that they "were worried that panic would affect the rescue order" [9]. Such rumors are directly related to the public's life and property safety, triggering the "collective protection" psychology, and prompting more people to break through the "silent cost" to participate in rumor refutation.

Emotional appeal (Emotional Appeal) makes the content that triggers strong negative emotions (especially anger, fear and moral indignation) can significantly improve the information communication power, and at the same time, it is easier to trigger the "urgent rumor refutation" reaction. The intensity of negative emotions caused by rumors directly affects the immediacy of correction behavior. An analysis of the rumor of "child traffickers stealing organs" in 2020 showed that because the rumor contained elements such as "children being abducted" and "bloody scenes", 78% of users had angry emotions when they first contacted it, and 45% of them would immediately repost the police's rumor refutation information [10]. Emotion psychology believes that high-intensity negative emotions (such as anger and fear) will activate the individual's "emergency response system", prompting them to relieve emotional pressure through actions (such as correcting rumors) [11].

3.3. External environmental support

The technical tools and process design provided by the platform directly affect the convenience and effectiveness of users' correction. Clear and easy-to-use reporting entrances (such as Weibo's "untrue information" reporting option), the function of reposting rumor refutation content with one click, and the timely feedback mechanism for report processing (such as processing result notification) can significantly reduce the threshold and perceived cost of users' correction behavior.

The "opinion leaders" (such as science bloggers and industry KOLs) in the community take the lead in refuting rumors, which can form a "behavior imitation" effect. A 2023 follow-up study on WeChat communities found that when the group owner (opinion leader) reposted rumor refutation information, the incidence rate of group members' correction behavior increased by 3 times, especially in acquaintance social circles (such as classmate groups, community groups), this "demonstration-following" mechanism was more significant [12]. Social identity theory points out that individuals tend to imitate the behaviors of authoritative or highly active members of the group to obtain a sense of community belonging [13].

4. Discussion on typical cases, situational differences and behavioral logic

Case analysis of communication and correction characteristics. Such rumors accurately use the public's general anxiety about health and the uncertainty about emerging things (such as new vaccines) and spread rapidly and widely. Effective correction highly depends on the timely, clear and repeated rumor refutation of authoritative institutions (such as CDC, WHO and top medical journals), as well as the interpretation and communication of professional media and science popularization workers. During the correction process, it is often faced with the resistance of anti-science emotions and conspiracy theories.

In 2021, a self-media account published an article "After receiving the XX vaccine, many women have abnormal menstruation and cannot get pregnant", with blurred screenshots of "hospital diagnosis certificates" attached, taking advantage of the public's concern about vaccine safety and spreading rapidly on WeChat and Weibo. The spread of this rumor has the following characteristics: first, it takes advantage of professional anxiety, aims at the attention of women (reproductive-aged women) to "reproductive health", and grafts "medical terms" (such as "endocrine disorders") to enhance confusion; second, it relies on acquaintance communication, and 72% of reposts occur in family groups and best friend groups, using the psychology of "relatives and friends are (credible)" to reduce vigilance [14].

Knowledge drive of professional groups, such as obstetricians and gynecologists, vaccine researchers, etc., release popular science videos through short video platforms, compare vaccine components with female endocrine mechanisms, and use data to prove that "there is no scientific correlation between vaccines and infertility". For example, the animated science popularization video produced by the obstetrics and gynecology team of Peking Union Medical College Hospital has a playback volume of more than 5 million within 48 hours, and there are a large number of "thank you for clarifying" interactions in the comment area [15].

The intervention and endorsement of authoritative institutions. The National Health Commission's official website released the "Answers to Common Misunderstandings about Vaccine (vaccination)", citing the tracking data of 100,000 vaccine recipients around the world, and made it clear that "there is no evidence that vaccines affect fertility". After the official rumor refutation was released, the spread of the rumor decreased by 89% within 24 hours [16].

Some users who had reposted the rumor reported that after seeing the professional science popularization, they had psychological discomfort due to "worrying that they misled relatives and friends" and then took the initiative to delete the original repost and repost the rumor refutation information, forming a closed loop of "wrong communication-cognitive dissonance-behavior correction" [5].

5. Governance approaches to promote public correction behaviors

5.1. Social level

Relevant departments explore the establishment of a rumor refutation incentive system. Consider designing a social positive incentive mechanism, such as incorporating effective reports into the public welfare points system (which can be used to exchange public services or small rewards), selecting honors such as "Cyber Clear Guards", etc., to recognize and encourage public participation.

Relevant departments systematically strengthen media literacy education: incorporate information screening, source evaluation, logical verification and other contents into the national education system (offering) "information screening" compulsory courses in primary and secondary schools, and improving critical thinking through simulated rumor spread experiments, such as role-playing "rumor makers-correctors") and community education projects, so as to improve the public's overall "rumor immunity".

Relevant departments should activate the supervision and guidance function of the "acquaintance social circle": pay special attention to the key role of family groups and community groups in information dissemination. Encourage the younger generation to provide gentle and patient information literacy feedback to the elderly (such as sharing authoritative rumor refutation articles and explaining information verification methods); cultivate a rational discussion and fact-respecting communication atmosphere within the group and give play to the self-purification ability within the community.

5.2. Platform level

The platform needs to optimize the reporting and feedback mechanism. Simplify the reporting process (one-click reporting), ensure that the reporting entrance is eye-catching and easy to use; establish a transparent processing process and timely feedback mechanism (such as promising to

process and publicize the results within 24-48 hours, and informing users of the reporting status), so as to improve users' sense of effectiveness and trust.

The platform should build an authoritative "rumor identification and rumor refutation" system. Deeply cooperate with government agencies, authoritative media, and professional organizations (such as science and technology associations and medical associations), establish and dynamically update the official rumor refutation information database (such as WeChat "Serious Platform", "Rumor Filter"); use algorithms to intelligently insert authoritative rumor refutation labels or links next to suspected rumor content.

Human-machine collaborative governance network. Integrate three major resources. First, the data layer, jointly builds a rumor database with authoritative institutions (such as WeChat "Rumor Filter" accessing the data of the State Food and Drug Administration). Second, the technology layer deploys AI detection tools (such as Fu Yingchao's CSSFND model to screen high-value comments). Third, the user layer, the creator " (deduction)" identification system (Douyin's fictional content is compulsorily marked).

5.3. Individual level

The Beijing Normal University experiment shows that the rumor identification accuracy rate of middle school students who received 12 class hours of media literacy training increased from 43% to 82%. The case of community lectures by retired teachers proves that intergenerational communication can improve the anti-rumor immunity of the middle-aged and elderly groups.

Encourage the "rational voice" strategy, and advocate the use of language based on facts, clear logic and peaceful attitude when correcting, avoid personal attacks and fierce words, and reduce the silence caused by worrying about interpersonal conflicts. Use replacement accusatory language, "This information may be wrong, because authoritative data shows..." instead of "You repost fake news"; add an empathy module, "I understand that you shared it for the health of your family..."; provide alternative information, attach popular science links or authoritative explanations. Experiments have shown that gentle expressions increase the acceptance rate of rumor refutation by 41%, especially in acquaintance scenarios such as family groups [17]. It is recommended that individuals with high cognitive needs give priority to using the combination strategy of "fact-checking + alternative narrative" to reduce the psychological defense of the audience.

6. Conclusion

This paper analyzes the driving factors and mechanism paths of information dissemination through the literature analysis method and proposes the paths to promote public correction behaviors. The public's correct behavior towards false news is the result of the dynamic interaction and common action of individual responsibility, information attribute perception and social environment support. Internal moral drive and knowledge ability are the foundation, the stakeholder harm and emotional impact of false information itself are the key trigger points, and convenient platform tools and positive community atmosphere provide the necessary support for action and reduce the cost guarantee. The analysis of typical cases further reveals the contextual differences in the correction motivation and mode between health-related rumors and social event rumors.

Most of the existing studies are based on a single platform or specific issues. In the future, it is necessary to strengthen cross-cultural comparisons (such as the differences in the correction of political rumors between Chinese and Western users), the application of new technologies (such as the impact of AI-assisted rumor early warning on user behavior), and the intervention strategies for

the correction behaviors of vulnerable groups (such as the elderly). Constructing a collaborative governance system of "individual rational judgment-platform technology empowerment-social system guarantee" will be the key direction to solve the dilemma of rumor governance.

In the future, to effectively govern false information and build a clear cyberspace, scholars must abandon the idea of solely relying on technology or supervision, and turn to building a "individual-platform-society" trinity collaborative governance system. Its core lies in: continuously empowering individuals (media literacy), systematically optimizing the platform environment (reporting feedback, integration of rumor refutation resources), and actively creating a social atmosphere that encourages rational participation and recognizes the contribution of rumor refutation (incentive mechanism, community guidance). Through multi-dimensional and multi-level efforts, scholars can significantly reduce the costs and concerns of public participation in information governance and stimulate a wider range of social forces to jointly maintain a true and credible network information ecology.

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