Reflections on the Fat Cat Incident: Characteristics, Laws and Responses to Online Public Opinion in Public Crisis

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Abstract: This study analyzes online public opinion during public crises, focusing on the 'Fat Cat Incident' as a case study. Using Python to collect Weibo data and machine learning for analysis, we identify a typical crisis evolution process. Findings reveal distinctive interactions in public opinion regarding heat, emotion, and topics. The paper suggests governance strategies based on crisis stages and multiple stakeholders, aiming to enhance government crisis management and online public opinion governance.

Keywords: Online public opinion; Fat Cat Incident; Machine learning; Government governance

1. Introduction

1.1 Background to the Study

Alvin Toffler predicted in the 1980s that information technology would transform society, marking a new era of human civilization[1]. As Fig.1 shows, according to the Statistical Report on the Development of the Internet in China as of December 2024, the number of Internet users in China has reached 1.108 billion, with an Internet penetration rate of 78.6%, which has continued to grow over the past five years.
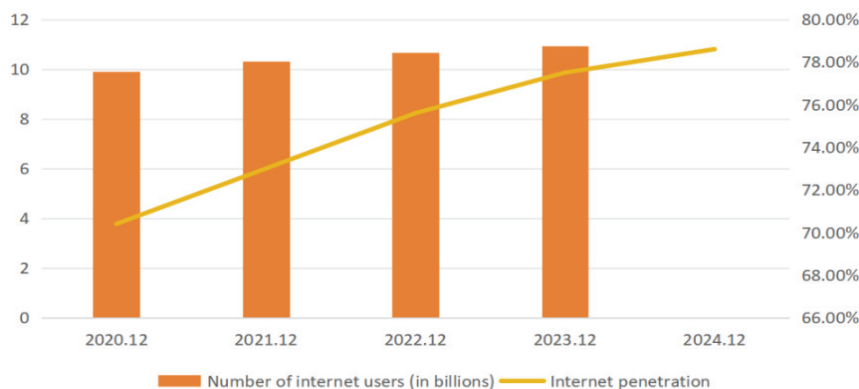

Fig. 1 China's Internet User Population and Internet Penetration Rate from 2020 to 2024

In the "post-truth" era, social networks have transformed public participation, especially during crises, by providing a dynamic information environment. While they enable real-time updates and online engagement, they also risk shaping opinions, influencing behavior, and triggering secondary crises. The public often prioritizes emotional, opinion-driven content over factual accuracy, prompting creators to use empathetic appeals for attention, which can spread misinformation. Governments and crisis managers must therefore balance leveraging social networks' benefits with mitigating risks, ensuring their effective use in complex scenarios.

1.2 Research Methodology

This paper examines the Fat Cat Incident as a case study to explore the evolution of public crises, analyzing its stages from incubation to resolution. Using Python crawler technology, Weibo data is collected and analyzed through Word2Vec and Support Vector Machine models for sentiment, topic trends, and dissemination scope. The study reveals multidimensional characteristics of online public opinion, offering data-driven insights into crisis dynamics.

2. Evolutionary Mechanisms of Public Crises

The public crisis evolution mechanism refers to the dynamic process and underlying logic of a crisis's emergence, development, decline, and resolution under the combined influence of natural factors and multi-stakeholder responses. It can be divided into four stages: prodromal,

acute, chronic, and resolution, each characterized as shown in Fig. 2.
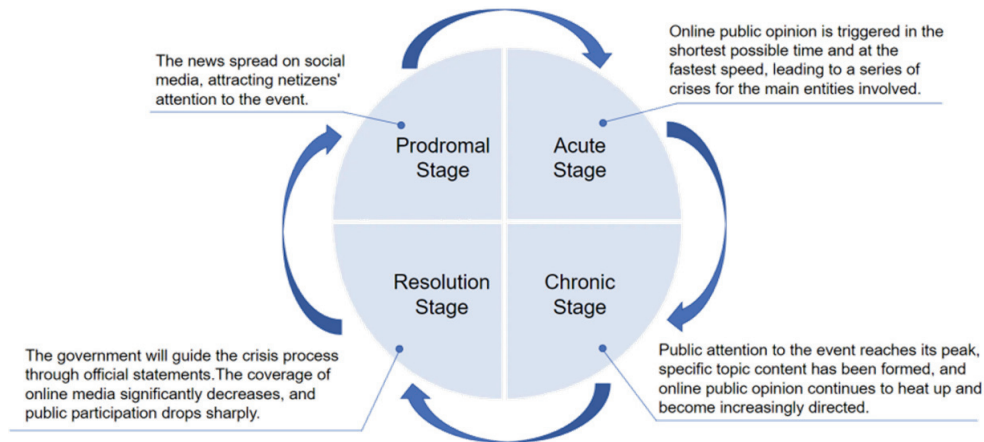

Fig. 2 Schematic diagram of the evolutionary stages of a public crisis

The Fat Cat Incident on May 3, 2024, serves as a significant case study in online public opinion. It sparked global discussions, disrupted market order, and led to unchecked rumors and cyber violence, harming individuals and cyberspace harmony. This incident highlights complex public crisis issues, providing valuable insights for analyzing and managing online public opinion in similar scenarios.

3. Python Crawler and Machine Learning Based Fat Cat Incident Data Deeply Analysis

3.1 Data Acquisition and Pre-processing

This paper uses Python to crawl 30, 513 blogs with "Fat Cat Incident" as the keyword, covering the period from the incident's outbreak to its resolution (May 3 - May 31, 2024). The data processing flow is shown in Fig.3.
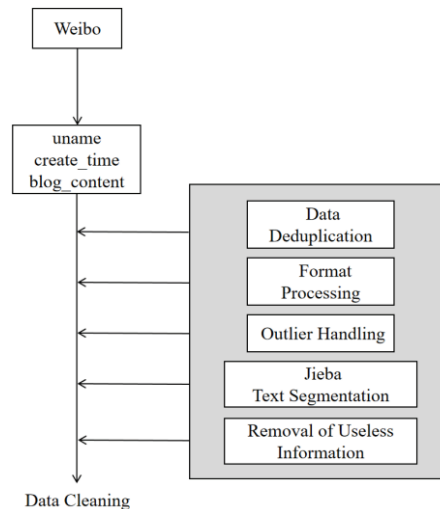

Fig. 3 Data processing flow

3.2 Sentiment Analysis Algorithm Implementation

This study utilizes the "weibo_senti_100k.csv" dataset from Sina's Github. We first extract features via Word2Vec and the Skip - gram model. Then, we opt for non - linear SVMs with RBF kernel. After splitting the data (80% train, 20% test), we train the model to classify news commentary sentiment.

3.3 Data Analysis

3.3.1 Analysis of Weibo Posting Trends

From Fig. 4, the Fat Cat Incident's trend on Weibo is evident. On May 3, related topics topped the hot search list, sparking widespread discussion and a peak in comments. On May 5, leaked chat records exposed emotional manipulation and economic blackmail, marking a turning point and reigniting discussions. By May 19, Fat Cat Sister's announcement and the police investigation report renewed public attention, causing another surge in posts. Subsequently, the incident entered the Resolution Stage, with declining topic heat and discussions, gradually calming the online public opinion crisis.
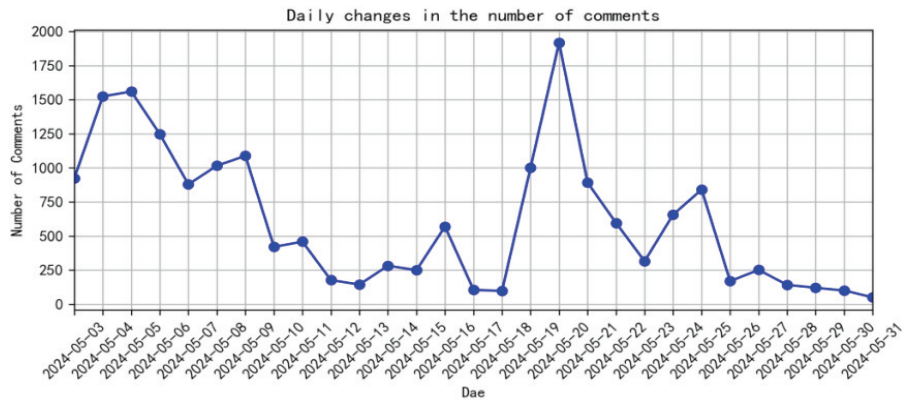
Fig. 4 Daily changes in the number of comments

3.3.2 Emotional Disposition Analysis

As illustrated in Fig.5, netizens' sentiment towards the "Fat Cat Incident" fluctuated significantly, dominated by negativity. Initial revelations of the cat's humble living conditions sparked sympathy, intensifying dissatisfaction towards the other party involved, Tan. Despite the May 19 police announcement clearing Tan of fraud, negative sentiment persisted and even escalated. This highlights that some netizens doubted the investigation or continued to condemn based on prior perceptions. In crisis communication, merely releasing official information may not suffice to swiftly alter public attitudes. Addressing the root causes of sentiment and enhancing communication are crucial for fostering a rational opinion environment.
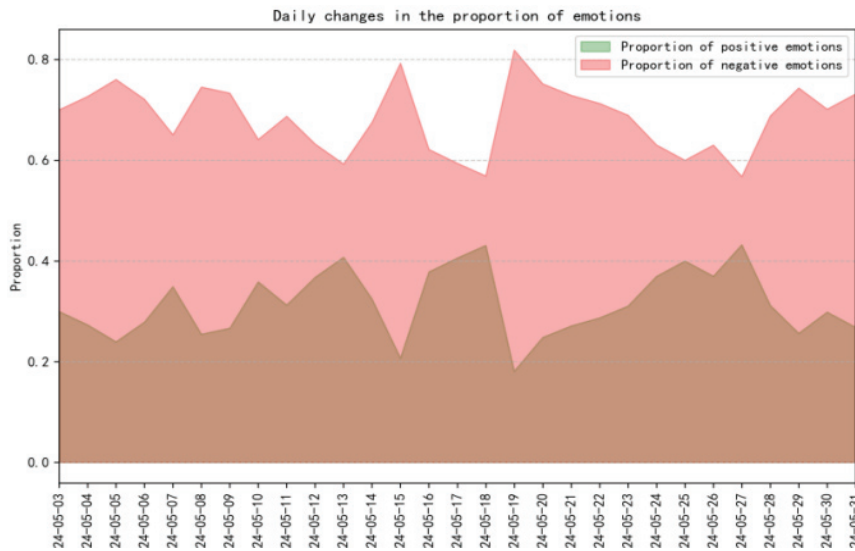

Fig. 5 Daily changes in the proportion of emotions

3.3.3 Analysis of Topic Heats and Scope of Dissemination

To understand public focus on the Fat Cat Incident online public opinion crisis, this study used Python to create word clouds and rank the top 10 Weibo topics before and after May 19. Pre-announcement, topics centered on the incident's progress, reflecting public curiosity and skepticism. Post-announcement, discussions shifted to police findings and social reflections, indicating a deeper engagement with underlying issues. This observation not only reveals the dynamism and evolutionary nature of online public opinion, but also demonstrates its complex and profound interaction with societal values.

4. Countermeasures for Public Crisis Governance in the Context of Internet Public Opinion

4.1 Crisis latency prevention strategies

During the incubation period of public opinion crisis, early warning signs, such as rising social media remarks about the conflict and subtle relationship changes, were evident. Government departments should enhance information collection and analysis by establishing specialized mechanisms to monitor online remarks in real-time and identify potential crisis signals. A risk early warning model should be developed to assess crisis likelihood and impact, enabling proactive measures. Public awareness campaigns can educate and guide the public, promoting
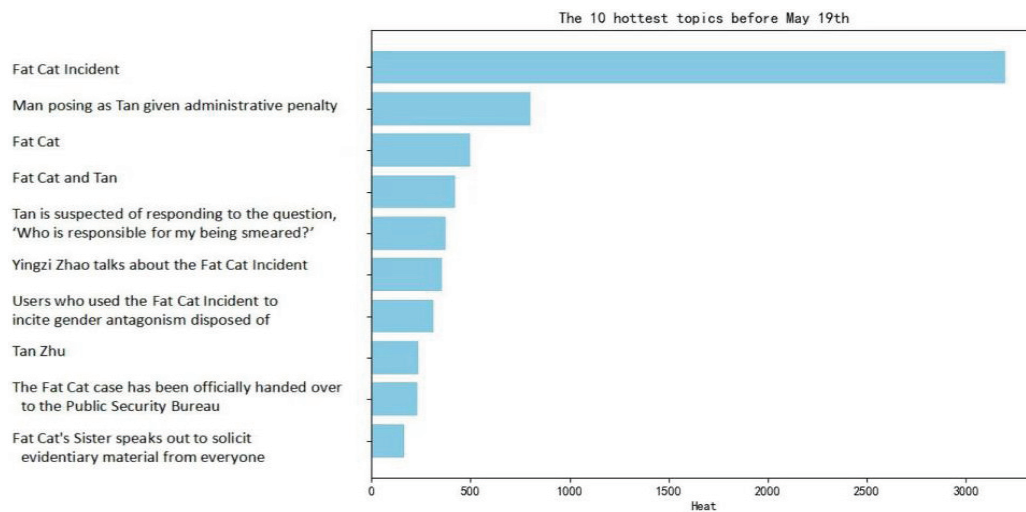
The 10 hottest topics before May 19th

Fig. 6 The 10 hottest topics before May 19th
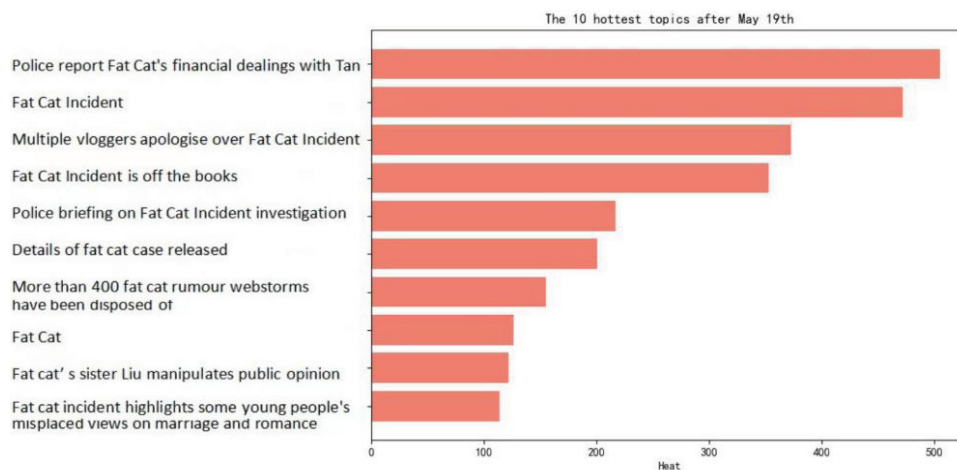
The 10 hottest topics after May 19th

Fig. 7 The 10 hottest topics after May 19th

calm and rational responses to potential crises.

4.2 Crisis Outbreak Response Strategies

When the Fat Cat Incident erupted and rapidly spread on social media, the crisis escalated fully. An emergency response mechanism should be activated immediately, establishing a command center comprising public security, cyberspace administration, and publicity departments to monitor public sentiment 24/7. Utilizing big data analytics, authorities should accurately identify and trace the sources of rumors, requesting platforms to limit or remove false information. Simultaneously, official accounts should release authoritative information, inviting experts to provide clarifications. Regular press conferences should be held to address public concerns, preventing further speculation and misunderstanding.

4.3 Crisis Expansion Response Strategies

During the extended period of the crisis, emphasis should be placed on strengthening public opinion guidance and building a relationship of trust between the Government and the public. Utilising a variety of media platforms, timely release of the progress of the incident and the results of the handling, and safeguarding the public's right to know. Through expert interpretation and media commentaries, guide the public to view Fat Cat Incident rationally and avoid over-interpretation and misunderstanding. Encourage the public to express their opinions and demands through formal channels, and respond to and address public concerns in a timely manner.

4.4 Crisis Stabilisation Repair Strategies

During the crisis stabilisation period, the focus should be on systematic improvement of the system and image restoration. In response to the legal problems exposed by Fat Cat Incident, relevant laws and regulations should be revised and improved in a timely manner to provide a legal basis for the handling of similar incidents. Strengthen regulation of industries involved in Fat Cat Incident to prevent

the recurrence of similar incidents. Gradually restore public trust in the government through open and transparent government work and positive media coverage.

5. Conclusion

In the information age, online public opinion is intricately linked to public crises, as exemplified by the "Fat Cat Incident." Public crises evolve through multiple stages, influenced by various factors, with online opinion playing a pivotal role from latency to resolution. Minor incidents can escalate into large-scale crises via the Internet, posing challenges to social order. Weibo data analysis reveals the dynamic and complex nature of online opinion, underscoring the difficulty and importance of guiding it. Proposed governance countermeasures, considering crisis evolution and stakeholders, offer feasible ideas for emergency management. However, limitations like a single data source exist. Future research should expand data collection and use multidisciplinary approaches to enrich theories and governance strategies, providing valuable insights for managing online opinion and public crises.

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