

# Analysis of Public Opinion Based on Douyin Data Taking the Example of the Account Entitled "Liu Genghong" Going Viral Across the Internet in China

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## ABSTRACT

Online public opinion refers to the opinion of the general public on social issues on the Internet, which is a form of social opinion. It is an Internet phenomenon that has been highly influential and tendentious in forming opinions about certain hot topics and issues. This paper will study the process of public opinion development and draw conclusions about its importance through the recent event that the Douyin account named "Liu Genghong" became viral on the Internet and led the public to shift their focus from the Shanghai lockdown to online fitness.

**Keywords:** Douyin, Public Opinion Analysis, Social Events

## 1. INTRODUCTION

Due to the rapid development of mobile Internet, the continuous optimization of network technology, and the continuous changes in the mode and form of communication, people's demand for the use of media has gradually shifted from the PC terminal to the mobile terminal represented by mobile phones. It is in this context that short video applications show great development momentum and potential.

As the short video platform with the largest number of users in China, Douyin has become the mobile short video platform with the largest number of daily active users and the largest number of short videos since it was launched in September 2016. The 44th statistical report on China's Internet Development released by China Internet Network Information Center (CNNIC) in Beijing shows that by June 2019, the number of Internet users in China had reached 854million, an increase of 25.98 million over the end of 2018, and the Internet penetration rate reached 61.2%, an increase of 1.6 percentage points over the end of 2018; The number of mobile Internet users reached 847million, an increase of 29.84 million over the end of 2018. According to the 2018 Douyin big data report released by Douyin, as of December 2018, the number of domestic Douyin's daily active users has exceeded 250million, and the number of monthly active users has exceeded 500million. Douyin short video platform has great advantages in the number of users.

With the development of Internet information technology and the transformation of social political, economic and cultural structure, the original social life style and interpersonal style have been broken and reconstructed. As a new social form, the network society has changed the traditional social structure and the way people live. This new social form and structure has created conditions for the existence of the social network structure and digital survival, making the network media a distribution center for public information expression and ideological and cultural exchange, Internet public opinion has become a "barometer" of public opinion. It is undeniable that the generation of Internet public opinion space undoubtedly provides help for the government, social organizations and individuals to timely understand public opinion, express opinions and suggestions, and exercise their rights of informed expression. But it also aggravates the vulnerability of the social network to a considerable extent, that is, while information has become the most important link connecting the whole society, the entire public opinion ecosystem has been extremely fragile and weakened due to its own asymmetry and uncertainty, especially the "viral" and "explosive" public opinion communication such as Internet rumors and rumors has become more extreme. Especially as more and more private mobile terminals access the Internet information transmission chain.

With the advent of the Internet era, there has been a diversification of the means through which people can

express their emotions. In addition, there has been a multiplication of the platforms through which it is expressed. This has resulted in the gradual emergence of online public opinion in the minds of scholars. At present, the research mainly focuses on the expansion function of the new media form based on the Internet to the "public sphere". As a channel of public opinion expression, Internet public opinion is a new form of public opinion. The research on Internet public opinion has become a research field with Chinese political and social characteristics.

Accordingly, the definition of online public opinion in academic has been defined as a collection of people's attitudes, emotions, and opinions regarding the occurrence, development, and changes of hot social events in a particular social setting.

Through analyzing how the Douyin account "Liu Genghong" went viral throughout the internet in China, and comparing a certain group of data, this paper argues that the public opinion can be influenced by certain opinion leaders and some triggering events, under the effect of lateral communication between netizens and opinion leaders.

## **2. FACTORS AFFECTING THE DEVELOPMENT OF PUBLIC OPINION**

It is among the interactive features of the Internet era that there are multiple sources of public opinion data, the diversity of platforms for disseminating public opinion, and the symbolic expression of netizens' emotions [1]. The huge amount of information contained in the information can certainly be a resource for improving public opinion management and determining how public opinion will develop over time. Further analysis of the social issues, interpersonal relationships, and value orientations contained in the information can also be a useful reference for developing public opinion and determining how it will develop [2].

### **2.1. Key Opinion Leaders**

In the process of disseminating information, an opinion leader is someone who often receives information from others and outputs it with regard to their perspective. The main purpose of opinion leaders is to filter information and communicate it to the public in a two-tiered manner. The development of the Internet has brought a growing number of emergencies to the public's attention, as well as created a community of opinion leaders. As a result, opinion leaders in the arena of online public opinion not only provide a voice for citizens, but also guide the development of public opinion.

### **2.2. Social Events**

Abraham Maslow's hierarchy of needs in the evolution of public opinion suggests that while satisfying low-level needs [3], people attempt to explore other needs brought about by higher-level mental stimulation [4]. This paper discusses the evolution of public opinion in terms of life cycle, divides the viral Douyin account of "Liu Genghong" into three stages: the fermentation period, the outbreak period and the spreading period, then visualizes the evolution of public opinion and explores the influence of public needs on the evolution of public opinion during the whole process.

### **2.3. Textual Sentiments**

In the development of public opinion, Internet users' sentiment has a great deal of influence. In a broader sense, expression of emotion is a reflection of citizens' positions on the emerging events to which they are responding. As part of the work presented in this paper, a system of hot topics of Internet users' emotions in the evolution stage of public opinion is constructed by splitting the textual information and correlating it with corresponding emotions, whereby we can grasp the changes of Internet users' emotions as the evolution of public opinion unfolds. Disassembling and analyzing the textual information is an effective and efficient way of gaining an understanding of the public's focus at each stage of hot topics, and in doing so, provide a theoretical basis for the government's management of public opinion.

## **3. CASE ANALYSIS**

This paper will investigate a case analysis of a Douyin account named "Liu Genghong" that went viral recently on Douyin. For the purpose of visualizing how public opinions can be influenced by the three factors mentioned above, the data from Douchacha will be used in the analysis of the data.

Developed by Beijing AipuYubang Technology Co., Dougacha is a professional platform for analyzing video data from short clips over the internet. A variety of data analysis and query functions are available in the software, including Douyin ranking list, popular videos, script library, e-commerce analysis, etc. Videos, music, pop-up goods, and high-quality account information are all provided, as well as the ability to track short video market trends and stream trends based on big data. It is also a platform that helps Douyin creators' accounts to be able to perform various tasks such as content positioning, fan growth, fan portrait optimization, stream cashing, and so on. I would like to emphasize that the data provided by this platform for the purpose of this article was chosen because Douyin Academy provides the latest information regarding short videos, operation tips, industry reports,

etc., to help produce, operate and accurately market videos efficiently.

### 3.1. Description of The Analyzed Account

Douyin account “Liu Genghong” is operated under a Chinese actor, singer, and health trainer in mainland China. Before going viral, this account has been used as a private one, sharing daily lifestyles, with not much attention. The virally spread of its videos started from the event that Shanghai was locked down due to Covid-19. Under this policy, hundreds of millions of people living in Shanghai has been compelled to stay at home [5], including Liu Genghong himself. Then he started to post workout videos on social media and attracted people’s attention.

### 3.2. Trend Analysis

The following picture illustrates the trend of fans following the Douyin account entitled “Liu Genghong”. The yellow line indicates the growth and the blue line indicates the total number.

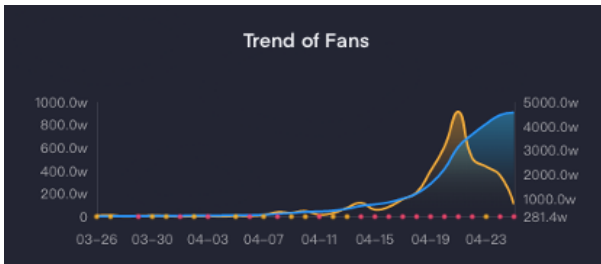


Figure 1 Trend of Fans.

It could be clearly seen that from April 7 to April 15, 2022, the number of fans gradually increased from “zero”. Here, “zero” does not mean that there is no one who follows the account but features a situation that the account shows an ordinary status. During this period, the growth was quite remaining at a low level. After April 15 and until today, there witnessed a sharp increase, indicating by a peak with the yellow line. And it is during this period that the videos started to go viral across the internet.

In addition, the following chart shows the trend of sharing in the recent month, which could also reflect some valuable cases together with the last chart.



Figure 2 Trend of Sharing.

From the above graph, it could be seen that the yellow line and the blue line kept a similar pattern with the fans trend. This may imply that the people who follows this account are likely to be willing to share the videos out.

### 3.3. Comparison of Video Data

It shows the stream data comparing his recent 10 videos. The green line indicates the number of sharing, yellow line indicates the number of comments, and the blue pillar indicates the number of likes. It is clearly shown that the 4th video shown in this chart, posted on April 21, 2022 was particularly heated. This explains why the above trend charts could also show a peak on this day.

### 3.4. Analysis on Word Cloud

The word cloud is the visual representation of the frequency of occurrence of key words in a network text, which is then used to form a "keyword cloud" or "keyword rendering" [6], in order to filter out a large amount of text information, so that the viewer can understand the main idea of the text with a glance over the text [7].

In this case analysis, the most frequently appeared word is “Jielun”, indicating the former singer “Jay Chou”, who was once an internet influencer as well. It is interesting to find that the most heated video’s background music was Jay Chou’s song “Ben Cao Gang Mu”. This demonstrates that the explosion of public opinion contains a certain degree of accidentality, since sometimes it is hard to predict which factor can trigger the formation of public opinions.

## 4. CONCLUSION

From a general perspective, the focus of public attention on the "Shanghai Lockdown" evolved from the main event itself to the daily life, and then to the public figures themselves. This proves that the public will first focus on the event itself when facing an unexpected event, and after satisfying their own low-level needs, they start to focus on higher-level needs with mental incentives [8].

At the same time, according to the above data, it can also be seen that the role of opinion leaders in guiding public sentiment is enormous [9]. Due to the lockdown of Shanghai, the public had to be forced to be quarantined at home and therefore had a lot of time to engage with the Internet. Recreational activities during the quarantine period also changed from the previously diverse forms to activities that could be done without leaving home, such as exercising. All these factors together contribute to the two-way communication and influence of opinion leaders and the public. On the one hand, opinion leaders can guide the public's sentiment from anxiety about the

pandemic to enthusiasm for fitness; on the other hand, the spread of public opinion can lead more people to shape a new social consensus [10].

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