Research on the Internet Public Opinion of the Attention of Ethnic Minorities Involved in the Dingzhen Incident

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Abstract: In the era of big data and internet, our life has undergone amazing changes. In this era, the spread and influence of any big and small events in the world are quite different from those of the day before yesterday. In the past, all the ways we obtained data were manual, which consumed a lot of manpower, material resources and financial resources. With the development of the times, the method of crawler appeared. By simulating people's operation on computers, machines can replace manpower to achieve some repetitive work and obtain massive data in a short time. At the same time, with the wide promotion of some social platforms, more and more people begin to post their thoughts on some events on these platforms, especially the events on Weibo hot search list, which will attract more and more people's attention. Ethnic events have always been the focus of our country's attention. Using a large number of public opinion data to conduct a series of analysis can promote our country's deepening national unity and common prosperity of all ethnic groups. Based on the Ding Zhen incident, it has attracted a lot of people's attention on Weibo, and also aroused a lot of interest and attention on Sichuan-Tibet culture and national characteristics. In this paper, through the method of crawler, we extract the related comments on Weibo based on the keyword Ding Zhen, and make emotional analysis on the comments; At the same time, the user ID of the comments and the distribution area of the users are mapped to realize data visualization, and the analysis based on the region is realized, which further deepens the impact of this national event and looks forward to the development of the propaganda of national events in the future.

Keywords: microblog, crawler, nationality, emotion analysis

1. Introduction

With the rapid development of the Internet, social media represented by Weibo has gradually become the center of public opinion. Social media such as Facebook or Twitter has fundamentally changed the way of influencing from personal opinions to the wider public, and has become the clue of public opinions. The choice of a single point of view and the publication of the patent of an absent author, each user can express his own views through social media [1]. As Canadian McLuhan said: "The influence of technology does not occur at the level of opinions and concepts, but it must unswervingly and irresistibly change people's sensory ratio and perception mode [2]." "2017 China Internet Public Opinion Research Report" pointed out that at present, online public opinion has the characteristics of online emotional dominant communication, especially in the fission fermentation process of negative public opinion, and emotional induction has become a pain point. Once the public opinion gets out of control, it will form a chaotic scene in which emotions and public opinion are mixed together. The spiral effect of silence and group polarization are still an important feature of online public opinion. Researchers such as Xie Xinzhou and Frances pointed out that the classical "spiral of silence" theory is still applicable to cyberspace [3-4]. There are social and economic inequalities and differences in communication ability in Chinese society, which also leads to the phenomenon of "group polarization" when people of different nationalities argue about public opinion, showing the trend of individual expression changing to group gathering, rational speculation changing to emotional catharsis, and online emotional virtuality changing to reality [5], which affects online ethnic relations.

Micro-blog is the main publishing and discussion platform of public opinion on domestic network, and the main method of studying network public opinion through natural language processing of

micro-blog content. Emotion analysis technology is a branch of natural language processing technology, which mainly judges the views expressed by users through the analysis of text content, so as to further judge the emotional tendency of users. Among them, emotional analysis can be subdivided into emotional polarity analysis, emotional degree analysis and subjective and objective analysis. The purpose of emotional polarity analysis is to judge the text content positively, negatively and neutrally. Emotional degree analysis mainly subdivides the direction of emotional polarity to describe the intensity of the polarity. Subjective and objective analysis is mainly used to identify which parts of the text are objective descriptions without emotional color and which are subjective descriptions with emotions. There are two main methods of emotion analysis: dictionary-based method and machine learning-based method. Dictionary-based method mainly uses a series of emotion dictionaries and rules to disassemble paragraphs and parse texts, then calculates emotion values, and finally uses emotion values as the basis of emotion tendency of texts. The method based on machine learning generally regards this problem as a classification problem, and the judgment of emotion polarity classifies the target emotion, such as positive, negative and neutral. After manually labeling the training text, supervised machine learning training is carried out, and the trained model is used to classify the emotion of the text to be tested. Through emotion analysis technology, we can quickly grasp the changes of online public opinion on ethnic issues, which is beneficial for relevant decision makers to take necessary measures according to public opinion [6].

2. Analysis of research status

With the development of internet, great changes have taken place in the way of spreading ethnic events. Only by reading the news and newspapers before can we know the new events. Up to now, if a national event is hot searched on Weibo, it can be widely spread both at home and abroad. As far as Ding Zhen's incident is concerned, many scholars have expounded and understood it in different directions. In his article, Tao Yang [7], taking Ding Zhen's phenomenal popularity as an example, analyzes the propagation characteristics, causes and influences of the amateur online celebrity phenomenon in the new media context of the Internet age, and reflects on how to rationally treat and analyze the emergence of this phenomenon in the network discourse system where traffic is king; Wang Zechen [8] in his article, from the perspective of Marxist journalism, expounds the role of mainstream media in the "Ding Zhen Incident" and its value-oriented role. In his article, Zhou Fan [9] thinks that the "Ding Zhen's popularity" is a successful drainage attempt by mainstream media, and began to explore the drainage under the new media.

This article is based on Ding Zhen's incident involving ethnic groups, and carries out a series of data analysis through data. In order to analyze the Ding Zhen incident, we will explore ways to promote national unity and mutual understanding among nations in the future.

3. Research background and ideas

In November this year, a young cattle herder in Litang County, Ganzi, Sichuan Province, accidentally broke into the photographer's camera, just like Alice fell into the rabbit hole, and fell into the black hole of social network media. Since then, Ding Zhen, a Tibetan "Tian Ye" boy, once became an internet sensation at the end of 2020 with the momentum of logging in several microblogs every day. Follow-up by the official media, the roll call of Chinese Foreign Ministry spokesperson Hua Chunying on Twitter, the endless signing invitations and interviews have brought him fame that ordinary people can't imagine. The network traffic poured in, which changed his once relatively isolated and peaceful life of herding cattle. Litang, its hometown, is a relatively poor, high-altitude, unattended transit station in the local area, which has become a popular destination for tourism website search. At the same time, the leaders and employees of state-owned enterprises who recruited him into the local tourism investment company to do tourism poverty alleviation were also wrapped up by huge traffic waves. The visual communication of the camera to his personal and hometown, and the exotic imagination of Tibetan culture by online viewers make Ding Zhen, a real cowherd boy and a "sweet wild boy", overlap and function with each other. The pervasive rice circle culture in social media, the network rules of high rhythm and high traffic, have a fierce chemical reaction with the relatively remote, poor and "slow, slow" plateau life in Litang. In the field of public opinion, Ding Zhen was placed under the spotlight and magnifying glass of the media, because he could not speak Mandarin and ushered in the "illiteracy accusation"; Because it is mainly welcomed by female netizens, it leads to "men's facial anxiety" and "straight men's hatred". Although his choice of staying in his hometown to help the poor received basic

praise, he was also mixed with various kinds of "speculation and questioning".

Just as most netizens misunderstand Ding Zhen's hometown in Tibet, Tibet as an administrative concept is often confused with Tibetan areas as a national cultural concept. Ganzi District, where Ding Zhen's hometown Litang is located, belongs to Sichuan according to its administrative position, but it belongs to Kang District in Tibetan areas according to its cultural division. As Geller, a Tibetan anthropologist, said, Tibetans are not a single ethnic group, but a collection of diverse ethnic groups. So, what is Kangba? According to Geller's anthropological exposition on Khampa people and Khampa culture, ancient Tibet was relatively closed, and the Yarlung Zangbo River Basin was the center of Tibet. According to the traditional Tibetan historical custom, the vast Tibetan areas are divided into three areas, namely, "Upper Ngari Sanai, Central Zhongwei Tibet, and Lower Duokang Six Posts". "Upper" refers to Ali area in the west, "Wei" is the central area like Lhasa, and "Kang" means "border land", corresponding to Changdu in eastern Tibet, Ganzi in western Sichuan and Diqing in Yunnan. "Ba" means "people", so "Kangba" means "people living in Kangqu".

In the process of Tibetan-Chinese ethnic blending and multi-ethnic living and developing together, the mutually influential cultures do not have to be exclusive because of identity problems. Ding Zhen, who is more in line with the aesthetics of Han girls, should not be excluded from the Kangba beauty in the eyes of mainstream Han men. However, the beauty presented and interpreted by Kangba people can be the beauty of Kangba, whether it is a mature and fierce tiger or a delicate and clever Ding Zhen. Self-substituting into the stereotype of Kangba culture, I think that Ding Zhen is "not the beauty of Kangba", but also the symptom of aesthetic hegemony. Just as the majority of netizens think that Ding Zhen's home is in Tibet, they regard Ding Zhen as illiterate, think that Ding Zhen will grow up disabled when he grows up, and look at Ding Zhen's past and local people's life in a subjective narrow sense, all of which more or less indicate the mainstream and strong Han-centered culture, and treat ethnic minority areas and their culture with the kind of arrogance, condescending power status and illusion divorced from reality. The fact is, at present, ordinary people in Tibet, whether Tibetan or Han, have the need to develop and adapt to modernization.

The local people who take root in the frontier and endure the hard environment construction have practical and daily efforts, and their lives are no exception. Both economically and culturally, they should improve the marginal position of being forgotten or misunderstood. When the life in the north, Guangzhou and Shenzhen is facing the challenges of information explosion, fast pace and high pressure, Tibet is inevitably cast as a utopian imaginary object which pays attention to spiritual life, is extraordinary and free from vulgarity, and is isolated from modernization, industrialization and informationization. Ding Zhen's popularity on the Internet itself is actually an affront to this self-righteous imagination. Tibetan culture should not only be the solace of the spiritual emptiness of others or the fantasy of hiding from the world, but also keep the Tibetan life "sacred and primitive", which is just the wishful obsession of the gazer. The cliche of "the conflict between modernity and tradition" is the nostalgia of petty bourgeoisie for pastoral life.

This time on the Ding Zhen incident, in the context of big data. I think of crawling the related content related to Ding Zhen on Weibo, such as comments, related id of reviewers, and areas in the personal information of users of reviewers. Text sentiment analysis will be carried out on the climbed comments, and word cloud based on comments will be made. It can be seen that everyone's emotional tendency towards Ding Zhen incident and the general direction that people pay attention to in this incident; At the same time, statistics can be made between regions and ID, the distribution of commentators in different regions can be counted, and the geographical distribution of this incident can be seen and further analysis can be made.

4. Experimental process and results

In this paper, the data source is a web crawler designed by python language, which completes simulated login, keyword search and extraction of comment content of relevant comment users on Sina Weibo, and carries out emotional analysis of the text based on the extracted comment content. This time, comments based on Ding Zhen were extracted through comments of keywords. At different time points, the data were processed through data packets of pandas and numpy, and finally 1960 comments related to Ding Zhen were obtained. Through SnowNLP emotion analysis data packets included in python, the text was divided into two categories, positive and negative, and the probability of returning the value as emotion, the closer to 1, the positive, and the closer to 0, the negative. Figure 1 is partial screenshots of the data obtained here; Fig. 4 is the histogram and box diagram of emotion analysis

visualization based on 1960 review data. And through the current hot word cloud picture, we made a comment-based word cloud picture based on the evaluation of Ding Zhen event.

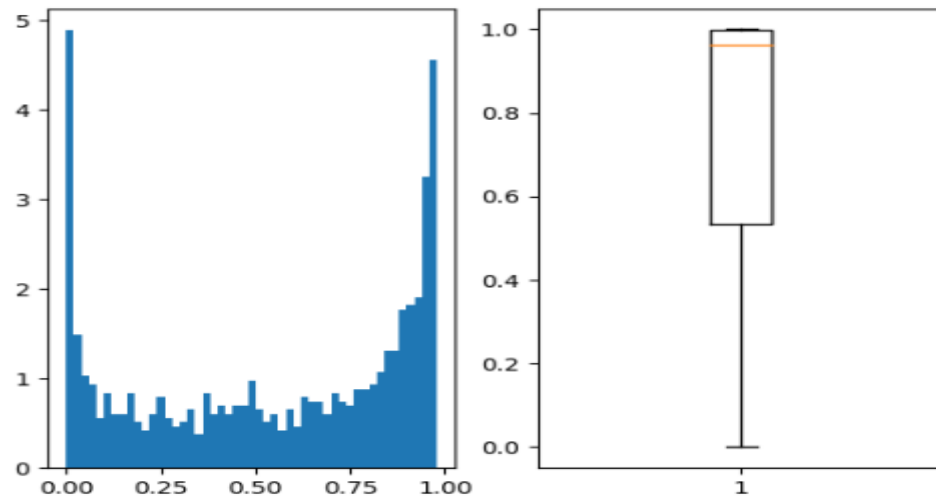*Figure 1. Large frame diagram of collected data*

Figure2. emotion distribution histogram and box diagram formed after emotion analysis

Through the analysis of the two figures formed in Fig. 2, it can be seen that people's feelings towards the attention of the national events involved in Ding Zhen are still positive. Although there are quite a few people who deny the existence of these ethnic minority events, most of these denials are questioning the publicity of ethnic minority culture by the flow, not that the events themselves are wrong, but the influence of some subjective factors. In the video, Ding Zhen's pure and clean smile and unique plateau red made Ding Zhen's face return to the most primitive state. Unlike the handsome guys in the city, Ding Zhen's high face value is the simplest, so Ding Zhen became popular. Then, under the solicitation of a state-owned enterprise, Ding Zhen entered the state-owned enterprise and became the image spokesperson of the enterprise, which greatly helped the development of Litang in Sichuan. Just like the cloud picture of Ci, Litang is also concerned by many people. As the saying goes, attention will lead to development. Now is the era of network. Once people have traffic, they will have attention. If they have attention, there will be negative and positive voices, but most people still hold a positive attitude. Most of the negative voices are still questioning the development of this flow-type online celebrity. However, I think the Ding Zhen incident is a positive energy product of the current traffic society. Ding Zhen not only represents the simple character of ethnic minorities, but also helps us

understand the culture and poverty of many ethnic minorities. Now Ding Zhen is trying to learn Han culture in order to better publicize the culture of Litang, Sichuan. This is the efforts of ethnic minorities to develop a better life, which we should support.

Not only that, this experiment also makes a regional analysis based on the commenting users and the regional information in their personal information. Analyze whether there will be a regional gap in the Ding Zhen incident. Nowadays, there are many tools that can realize data visualization, such as excel, matplotlib data package in pycharm, matlab and so on. In this experiment, in order to facilitate readers' understanding and better practice, based on the 3D map brought by excel, the following three figures are made through three ways of generating 3D maps.

Fig.3. Based on the heat map, the regional distribution map of the comment users made

Fig.4. Based on bubble chart, the regional distribution map of comment users made

Fig.5. Based on the cluster column chart, the regional distribution map of the users who made comments

According to the reliability of the data, the data with higher reliability is extracted from this 3D map, about 56% of the total data is used in the image, and the uncertain position is not displayed in the image. In the bubble chart in Fig. 2, the stronger the attention to Ding Zhen's incident, the wider the coverage of the circle in the area. It can be seen more intuitively from this figure that people in many areas of Beijing are concerned about this incident, followed by Shanghai., Guangzhou and Chengdu; In the cluster column diagram in Fig. 4, the more attention is paid to Ding Zhen, the higher the column height. It can be seen from the figure that Beijing has the highest column, followed by Shanghai, Guangdong and Chengdu.

5. Summary and prospect

In this paper, we crawl Sina Weibo's national attention based on Ding Zhen event, analyze the emotion of text content from comments based on this event, and analyze the region based on the regional distribution of comment users. It can be seen that developed cities pay more attention to ethnic events than other regions. The reason for this situation may be the difference in publicity degree of ethnic minorities, or the difference in attention degree between other regions.

At present, it has become a great trend to analyze data by crawling crawlers. In the range of crawler, the crawler method is used to obtain data, and massive data can be obtained by a few programs without much manpower, material resources and financial resources. Then, on the basis of crawler, combined with some big data analysis platforms, some user behavior analysis, user emotion analysis and regional analysis are completed.

Based on the emotional analysis of this commentary on Ding Zhen incident, it is briefly concluded that people pay great attention to ethnic minority incidents at present, but there are still regional differences. For the above differences, for the understanding of the culture of ethnic minorities, not only do we students need to search on the Internet and learn about it, but also the propaganda of ethnic unity and mutual understanding among ethnic groups on the Internet is essential. At school, teachers can organize to learn about national events and national culture together; In the society, work units can also organize and carry out understanding of the cultures and events of ethnic minorities that we are not familiar with. I believe that through these related activities, we can not only know more about ethnic minorities, but also promote the unity and development among ethnic groups.

There are still some shortcomings in this paper. Although the crawler is used to extract data, the amount of data is not so large that the coverage of users is not wide enough; At the same time, this is a public opinion analysis of the national attention for an event. For the big direction of national attention, the situation explained by an event is not sufficient.

For ethnic minorities, whether online or offline, they have a practical and present life, sharing the same difficulties, pains and struggles with us. Ding Zhen's fate has been changed forever, but Litang and Tibetan culture, and those scattered in other nationalities and regions, still have a long way to go. The national culture and life are actively seeking for survival, change and innovation, and have the same economic development as us. Ding Zhen, who became popular by chance, showed an attempt and possibility of cyberspace. Ding Zhen shows a rapidly changing trend of the times. In the relationship between "seeing" and "being seen", and in the connection between virtual and reality, we must continue the dialogue beyond gender, nation and culture, and broaden a world of equality, integration, pluralism and common development in the narrow gap.

For the follow-up issues of minority attention, we can further realize multi-event and massive data sets, and further improve the data analysis, so as to conduct more in-depth research based on minority attention in the future.

Acknowledgements

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