



## THE UNDERSTANDING OF SINA WEIBO USERS TOWARD POPULAR EMOTIONAL INFORMATION

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### Abstract

In recent years, social media has made great development, which has an important impact on the traditional communication mode and information dissemination mode. Previous studies have shown that the emotional content is more likely to be shared and spread in computer mediated communication like in written communication. Furthermore, positive content is more viral than negative content by using Twitter. In China, researchers disagreed on whether positive emotional content or negative emotional content are more viral on Sina Weibo platform, and few studies focused on the relationship between emotional information and user sharing. This study explored the relationship between emotional content and user's sharing behavior and intention by using interviews approaches of qualitative analysis. The study indicated that negative content is easier to spread than positive content on Sina Weibo in term of retweeted information, while individuals tend to share more positive information about leisure, entertainment and self-display in term of user-generated information. The study also showed that the main reasons for the easier dissemination of specific emotional information are environment control, user entertainment intention and user self-fulfillment intention.

**Keywords:** information dissemination; Microblogging; negative content; positive content; Sina Weibo

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## I. Introduction

Nowadays, social media or online discussion board have played a significant role in the public communication whereby it allows learners to communicate and interact with each other (Shazarin, 2017). Particularly, it has facilitated information sharing in social networks with the advanced of technology (Yusof et al., 2021). As a result, an important question was raised, why some online content is easier to spread while others are not? Much recent work stated that there are several factors that drive information dissemination, including the structure of social networks, the credibility and influence of the information source as well as the content-related features (e.g., hashtag inclusion, URL and topics). Furthermore, the emotions which are one of content-related features can also promote information diffused in social media networks. "As part of human communication, social media content often conveys information about the author's emotional state, his or her judgment or evaluation of a certain person or topic, or the intended emotional communication (i.e., the emotional effect the sender wishes to have on the receiver), which is generally termed as "sentiment" (Stefan Stieglitz and Ligh Dang-Xuan, 2013). Emotions in social media content and users' information sharing behavior will influence each other. A large number of studies have shown that emotional content, whether positive or negative, is easier to be shared and disseminated. For now, most research on the relationship between sentiment and user's information sharing behavior are based on Twitter which is a popular platform all over the world. While Twitter is unavailable in China, instead, Sina Weibo is widely used as a Microblogging. Some research stated that positive content is more viral than negative content (Jonah Berger and Katherine L. Milkman, 2010). While other research indicated that negative content is more likely to spread than positive content in Chinese Sina Weibo (Cong Liu and Yungeng Xie, 2015). There seems to be different research conclusion in different Microblogging applications and cultural context. The research question for this paper are as follows. What is the understanding of Sina Weibo users toward the characteristic of prevalent emotional messages? What is the understanding of Sina Weibo users toward the reason why specific emotional message is more prevalent? Besides, the former research focused mainly on user's retweet behavior or repost information (Meenakshi Nagarajan, Hemant Purohit, Amit Sheth, 2010), but neglect the user-generated information which also remark the news and the real-world event because this kind of information is difficult to identified and

collected in quantitative method. According to the social psychology, general emotional appeal is an effective means of persuasion. Emotions seem to have potential impact on people's attention, intention, memory and final judgements and decisions (Forgas, 2006). In traditional written communication, previous studies have shown that emotional stimuli in terms of emotional words or emotional framework of information can lead to higher possibility of behavioral response in terms of information sharing. Emotional contagion is the spread of emotions and emotions among people. The latest research shows that emotions are also spread through computer mediated communication (CMC) as written communication (Harris, R.B., and Paradise, 2007). In turn, emotional contagion may affect communication behaviors at the individual and group levels, such as sharing information on the Internet. Users who share information on CMC have many motivations. User's intention to share information is closely related to the emotions in content and the emotional state of user. A detailed analysis of sharing behavior and possible intention can help to accurately classify and in-depth study of intention.

## II. Literature Review

Previous studies have shown that emotional information could be effectively transferred in CMC. Berger found that positive news is more widespread in the Email network, meanwhile news that can cause higher emotional arousal levels is more widespread. In term of Twitter network, the emotions contained in the information not only express the user's emotional experience, but also focus on expressing the evaluation of something from the emotional experience. Hansen found that news message on Twitter were more likely to be retweeted, which suggesting that Twitter was close to the traditional news media (Hansen, Arvidsson, 2011). Huffaker found that people who often use emotional language in information receive more feedback than those who seldom post emotional information in forums, which applies to both positive and negative emotions (Huffaker, 2010). Joyce and Kraut proved that positive emotions in information enhance community awareness and encourage continuous participation, meanwhile negative emotions can generate feedback through hostile and insulting interactions (Joyce, E., and Kraut, R, 2006).

In China, most relevant research focuses on Sina Weibo. Cong Liu found that the stronger negative sentiment there are in Weibo message, the more it is retweeted and commented by others. on the other hand, the level of positive sentiment has no obvious relationship with the number of comments

retweeted. This phenomenon indicates negative sentiment is more likely to spread in Weibo platform (Cong Liu and Yungeng Xie, 2015). While in another research based on Sina Weibo, the different conclusion came out. Zhang Hong stated that the user's willingness to share information is influenced by the type of information emotions, and the willingness under positive emotions (vs. negative emotion) to sharing information is higher (Zhang Hong, Jiang Ting, 2019).

In conclusion, sentiment has positive influence on information dissemination and user's sharing behavior all over the world, but there is disagreement on whether positive emotions or negative emotions are more viral in terms of Sina Weibo platform.

This study aims to explore the understanding of Sina Weibo users toward the emotional messages. Exploratory qualitative method is deemed appropriate because the goal of this research is investigating the influence on people's behavior and intention to share information, especially user-generated which is unable to be counted by retweet. The study also aims to explore the reason why Sina Weibo users are more likely to post and retweet specific emotional information. Previous research stated that user's intention to share information is closely related to the emotions in information and the emotional state of user at that time. Liu Yao believed that Sina Weibo users are motivated by the use of retweets to record life experiences, share emotions and express inner feelings (Liu Yao, Lang Yujie, Li Ling, 2013). some emotions such as anxiety, anger, or awe might strongly trigger a high level of physiological arousal, which is a state of mobilization. Physiological arousal has been proven to be a motivation for user's information sharing behavior (Berger, 2011). Zhao Wenbing believed that Weibo user's intention to retweet is to search for information, to understand professional information and the rise of emotional impulses (Zhao Wenbing, Zhu Qinghua, 2011). In a word, the emotional purpose is one of key intentions of Weibo user to share information through CMC.

### III. Methodology Description

#### 3.1 Research design

The research was primarily a qualitative one because it aimed to explore the understanding of Sina Weibo users toward the emotional messages. As many information sharing behaviors involve with the user-generated message, which is difficult to evaluate by retweet, the qualitative method which is natural and highly interpretive is appropriate for data collecting and data analysis. Interview is one of the qualitative research methods. Its scope of application is:

- (1) the number of subjects (whole or certain categories) is small, heterogeneous.
- (2) information is expected to be largely different, difficult to describe statistically.
- (3) the subject of the study is exploratory, does not apply to the guidance of forming theory.
- (4) the researchers recognize that the relevant concepts and arguments should be defined by the subject (main research), rather than by the researchers in advance.

The main features of Interview include: First, the study is carried out in natural situations, through a longer period of time of interviews to collect information; secondly, the interviewer can change questions or adjust the order of the questions based on the answers of interviewees, and conduct the data collection and analysis simultaneously.

Because the understanding of Sina Weibo users toward the emotional messages is still an exploratory problem for now, and the Weibo users are widely different in the number of followers and rank, so the author chose interview to study.

#### 3.2 Participant and setting

The sampling criteria in this study is intensity sampling, i.e., cases with higher information intensity. The time that participants used on Sina Weibo is no less than two hours every day and they have used Sina Weibo for at least one year. The more familiar participants are with Sina Weibo, the more detailed questions they provide. Subject to sampling criteria, the author also tries to ensure the diversity and heterogeneity of the samples.

Since understanding of Sina Weibo is still in the exploratory scenario for now, only two participants participated in this mini project. The first participant is a college student who ever attended my class in last term. He is friendly and suppose to interact openly in interview. His username on Weibo is Kaidi and has used Weibo for one and half years. He is a typical male follower on Weibo who like to share and retweet other's message rather than generate information. The second participant is a housewife. Her username on Weibo is Liusi. she is 37 years old and has used Weibo for ten years. She is very active on Sina Weibo and has 0.3 million of fans. She is a typical female opinion leader on Weibo who like to both generate information and retweet other's message.

#### 3.3 Data collection

Through relevant literature analysis and experimental pretesting, the author identified a list of interview questions and conducted the interview in the winter of 2021, with an average interview time of about 30 minutes per sample. Because of

the prevalence of COVID-19, the study adopted interview on Internet.

Prior to the interview, the author explained the purpose of the interview to the interviewees, obtained their informed consent and emphasized the need to ensure authenticity in answering questions. The survey was conducted anonymously and promised not to disclose any of the respondents' privacy and to allow them to quit out freely. Kaidi approved the interview quickly while Liusi agreed to take interview after several days' consideration.

There are about six brief questions guided the interview.

- (1) How long have you been using Sina Weibo, do you often use it? how long do you use it every day?
- (2) What do you do on Sina Weibo?
- (3) Do you think there is more positive content (e.g. happiness, awe, self-confidence, expectations, etc.) or more negative content (e.g. anxiety, anger, sadness, fear, etc.)? What do you think might be the reason.
- (4) Talk about one of your recent retweet experience, and why you chose to retweet it?
- (5) What kind of emotion content would you prefer to retweet?
- (6) In your original Weibo post, what kind of emotional message would you prefer to share? Why?

In the interview, the author adjusted the order of the questions based on the answers of interviewees and conducted further in-depth interviews with the interviewee for some vague answers. For the interviewees' respective characteristics, the interviewees' individual questions are raised. At the end of each interview, the written records are translated and converted into electronic text in a timely manner, and the interview materials are summarized, the analysis is organized, and the results are summarized according to the outline of the interview.

#### IV. Results and Discussions

In a total of 28 emotional words were extracted from the transcript. These words were then grouped to obtain subcategories which were further grouped into category based on the similarity in implication. In term of the characteristic of emotional messages, there are two categories: positive content and negative content, which emerged from the seven subcategories. Table1 shows the categories and their subcategories of characteristic of emotional messages. These categories were used to organize the reporting of the interview information.

There are two types of information : retweeted information and user-generated information. In term of prevalent retweeted information, two samples seem to have different opinions. Kaidi thought that positive content is popular, and he often retweet funny things, while Liusi found that negative content is prevalent on Weibo and many people always arguing and reject dissent.

**Table 1.** The characteristic of emotional information

Positive content	Negative content
Happiness	Anger
Confidence	Anxiety
Expectation	Fear Disappointment

Liusi's recent retweet emotion is 'disappointment' which belong to negative emotion, so Liusi's experience and feeling are consistent. While according to Kaidi, His recent retweet emotion is fear and anger which belong to negative emotions. At the same time, he also noticed that although the retweet is positive, the remark information is negative, it seems that his experience and feeling are inconsistent: He thought the positive content is more prevalent, but he mentioned many negative information.

In term of prevalent user-generated information, two participants have the same opinion, they both like to post positive content including happiness and self-confidence. Kaidi thought that the reason why positive content is prevalent is "as Weibo is a worldwide platform and many other countries' people also are using it, the government and Weibo officials will definitely control the public opinion to prevent social panic." Liusi mentioned "fan culture", which indicated that the government and environment are very important to guide the prevalence of emotional information. Weibo users have entertainment intention to post and retweet. For Kaidi, he liked to retweet funny things to relieving pressure, participate the game draw to pass boring time. For Liusi, she found many people venting discontent by insult others who has different opinions. Weibo users also have self-fulfillment intention to share specific emotional information. Kaidi chose to retweet Zheng Shuang's surrogacy event to promote the development of the event and the prevention of similar events. Liusi found people are highly response to her experience about children's education. They got the identity and recognition of microblog information and exchanged the feeling of life or events. Kaidi and Liusi both tend to portray themselves as optimistic and cheerful.

## V. Conclusion

Through qualitative analysis of the interviews of two Sina Weibo users, this study explored the understanding of Sina Weibo users toward the characteristic of prevalent emotional messages and the reason why specific emotional message is more prevalent. The main findings can be summarized as follows.

In term of retweeted information, negative content is easier to spread than positive emotions on Sina Weibo. Even if the government tries to create a positive opinion environment by suppressing negative news and promoting positive news, negative emotions will still spread through retweet comments and other means. In term of user-generated information, positive content is more prevalent. Different from public news, individuals whether they are followers or opinion leaders tend to share more positive information about leisure, entertainment and self-display. Study shows that the main reasons for the easier dissemination of specific emotional information are environmental control and influence, user entertainment intention and user self-fulfillment intention. Firstly, environmental control and influence play a significant role in emotional information guidance. People, especially mild users of Sina Weibo are easily influenced by the public opinion control by government and Sina Weibo officials. Additionally, personal sharing intentions are also crucial. Entertainment and self-fulfillment intention drive people to share specific emotional information on Sina Weibo. people tend to retweet messages to relieve pressure, pass boring time and vent discontent, they also exchange feelings and seek emotional resonance by retweeting emotional information.

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### About the Author (30 words)



Photo

Jiao Bianbian(1981-),female, Han nationality, China, Computer science major, master's degree, associate professor, the main research areas include Natural Language Processing and data mining.



Photo

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