A Networked Social Movement: A Study of How a Massive Mobilization Formed in Mainland China

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Abstract. Networked social movements are established on pre-existing social and organizational linkages facilitated by networked media technology. Instances of such movements encompass those that transpired in Tunisia, Egypt, Spain, the United States, and numerous other nations as a reaction to the 2008 financial crisis. Despite the significant differences in regional issues and political contexts, the primary participants were interconnected with one other, as well as with peripheral participants and observers, via digital media. The primary distinction between traditional social movements and networked social movements lies in the transition from 'collective action' to 'connective action'. The latter pertains to individuals addressing issues largely on an individual level, recognizing common concerns within easily personalized frameworks of action that facilitate the widespread sharing of varied interpretations of shared problems via digital media networks. The author aims to investigate the development and evolution of opinion leadership on Weibo and Douyin by analyzing the distribution of social influence across these platforms and assessing the stability of inequality in social influence. Specifically, concentrate on the current social event "Sanzhi Yang," which pertains to an e-commerce company's crisis communication. The author replicates the research design of Liang and Lee (2023), who utilized two statistical approaches to assess the stability of opinion leadership: Gini coefficients and coefficient of variation. The subsequent sections will commence with literature evaluations on networked social movements and the concept of leaderlessness.

Keywords: Networked social movement, leaderlessness, crisis communication, Chinese social media platform

1   Introduction

Networked social movements are established on pre-existing social and organizational linkages facilitated by networked media technology. Instances of such movements encompass those that transpired in Tunisia, Egypt, Spain, the United States, and numerous other nations as a reaction to the 2008 financial crisis [1]. Despite the significant differences in regional issues and political contexts, the primary participants were interconnected with one other, as well as with peripheral participants and ob-

servers, via digital media. The primary distinction between traditional social movements and networked social movements lies in the transition from 'collective action' to 'connective action'. The latter pertains to individuals addressing issues largely on an individual level, recognizing common concerns within easily personalized frameworks of action that facilitate the widespread sharing of varied interpretations of shared problems via digital media networks [2]. For example, the employment of hashtags or digital activism allows social media users to convey their emotions personally, as opposed to disseminating messages dictated by formal groups [2].

This occurrence illustrates further attributes of networked social movements, such as leaderlessness and decentralized, grassroots involvement. Academics have examined these ideas from multiple viewpoints. Liang and Lee suggested that rather than focusing on the concept of leaderlessness, it is beneficial to investigate the traits of informal and diffuse leadership within networked social movements [3]. This perspective directs attention to another focus of this article: the characteristics of informal (opinion) leadership on Weibo and Douyin, as well as its stability. The author aims to investigate the development and evolution of opinion leadership on Weibo and Douyin by analyzing the distribution of social influence across these platforms and assessing the stability of inequality in social influence. Specifically, concentrate on the current social event "Sanzhi Yang," which pertains to an e-commerce company's crisis communication. The author replicates the research design of Liang and Lee [3], who utilized two statistical approaches to assess the stability of opinion leadership: Gini coefficients and coefficient of variation. The subsequent sections will commence with literature evaluations on networked social movements and the concept of leaderlessness.

2   Literature Review

In the digital realm, individual engagement increasingly transcends mere expression and pursuit of political goals in the physical world. The array of actions contributing to this has markedly increased [4]. Bennett and Segerberg posited that the utilization of networked social media [2] has facilitated a distinct logic of connective action, wherein alignment with collective issues can be manifested through individualized expression and 'a self-validating mechanism of information dissemination via personal online networks' [5]. The new rationale of connected action operates fundamentally differently from classic social movements. In the context of connective action research, scholars focus on street protests characterized by physically decentralized networks of individuals united by shared political interests and the utilization of social media, rather than by formal organizational membership or affiliation [6]. Moreover, protest activities characterized by connective action are distinguished by low-cost, rapid digital mobilization and necessitate minimal formal organizational engagement and coordination [2]. Furthermore, networked social movements enable individuals to engage in mobilizations and activities by resonating with personalized political practices, such as hashtags and digital actions, to articulate their expressions of outrage, instead of disseminating or amplifying messages dictated by formal organizations [7].

Conversely, some have cautioned against excessively highlighting the potential for organizing without formal organization [8]. Some scholars have referenced Freeman's critique of the 'tyranny of structurelessness', contending that ostensibly decentralized acts may be governed by informal frameworks that lack responsiveness to participants [9]. Other researchers assert that decentralization diminishes a movement's capacity for collective decision-making and its responsiveness to ongoing developments [4].

The notion of informal leadership or leaderlessness originates from a prominent topic in the post-1968 movements in the West. These movements underscored 'anti-authoritarianism, self-organization, and individual self-realization' as a reaction to the dominant entities of the Fordist period: 'corporations, trade unions, political parties, and the state machinery' [1]. This perspective aligns strongly with the principles emerging from the techno-utopianism of hacker culture, linked to the evolution of computing and promoting values of transparency, openness, and information freedom. In the modern setting, Fong recognized and described a specific type of anti-hierarchical, informal, and diffused leadership typical of liberatory social movements, termed 'Autonomist Leadership' [10]. Furthermore, Fong delineated the five elements that characterize Autonomist Leadership: spontaneity, autonomy, mutuality, emotion, and networks [10]. A notable strength of these oppositional movements is their reliance on informal networks to orchestrate large-scale protests, complicating repression [8], particularly when members utilize non-violent tactics. This also facilitates flexibility and adaptability to diverse circumstances, as they are autonomous from established resistance parties and other entities. In summary,

Research Question 1: On Weibo and Douyin, which platform has the most influential capability to attract people's attention in a networked social movement?

Research Question 2: To what extent is (opinion) leadership dispersed or concentrated on Weibo and Douyin?

Hypothesis 1.1: On both platforms, participants' influence is unequal, as it is more concentrated on a few users.

Hypothesis 1.2: When comparing the inequality of users' influence, it is relatively more dispersed on Weibo than on Douyin.

Hypothesis 2: On both platforms, the concentrated influence of participants is unstable. The majority of informal (opinion) leaders are likely to emerge by random chance.

3   Method

3.1   Data and Measures

This article collected online texts as the raw data from two Chinese social media platform. Specifically, the author collected the original posts and videos within one 'chaohua' "Sanzhi Yang" and related topic on Douyin and on Weibo. The purpose of this paper is to examine the influence of users or the attention of public, therefore, the indicators of this set of data are views, likes, number of videos and articles, and number of users.

Regarding different research questions, the author employed various analysis method and measurement into two steps, including descriptive statistic results, the computations of Gini coefficient and coefficient of variation.

3.2   Results

3.2.1 Mobilization on Two Popular Social Media Platforms.

According to the platform's official records, Weibo has a total of 740,000,000 views, while Douyin has 23,697,000. These figures suggest that Weibo has a greater ability to attract people's attention. The other two indicators may provide a same perspective. On Weibo, there were 2,752,908 likes across 484 articles. On the Douyin platform, there were 487,048 likes across only 94 videos. The average views and likes for each user on Douyin were 252,095 and 5,181, respectively, which is lower than the average influence for each Weibo participant, which was 1,528,925 views and 5,687 likes. On the other hand, the findings may also suggest that Douyin has fewer participants and less content in this networked social movement. However, two factors are worth considering: firstly, video content is generally more difficult to produce than conventional articles; secondly, some participants in the movement on Douyin did not use the relevant hashtags related to the case. Shown in table 1.

Table 1. Descriptive summaries on Wei and Douyin.

	Douyin	Weibo
Views	23,697,000	740,000,000
Likes	487,048	2,752,908
Numbers of content	94	484
Average views	252,095	1,528,925
Average likes	5,181	5,687
Views	23,697,000	740,000,000

3.2.2 Inequality of User Influence.

Regarding the results of Gini coefficients for the distribution of likes on each platform, the author first compute each users' number of likes per day, and the number of users, then conducting relevant calculations. Figure 1 present details results, whereas the average Gini coefficient for Douyin is 0.6062, Weibo is 0.7590. This finding reveals that, first on both platforms, in the case-relate 'chaohua', a small number of users attracted the greatest number of likes, which support the hypothesis 1.1 that (opinion) leadership seems significantly concentrated on both social media platforms. On the other hand, the inequality and concentration between two platform is different, whereas the (opinion) leader's influence on Douyin is likely decentralized than Weibo, which support the hypothesis 1.2 that the inequality of (opinion) leadership on Weibo is higher than on Douyin.
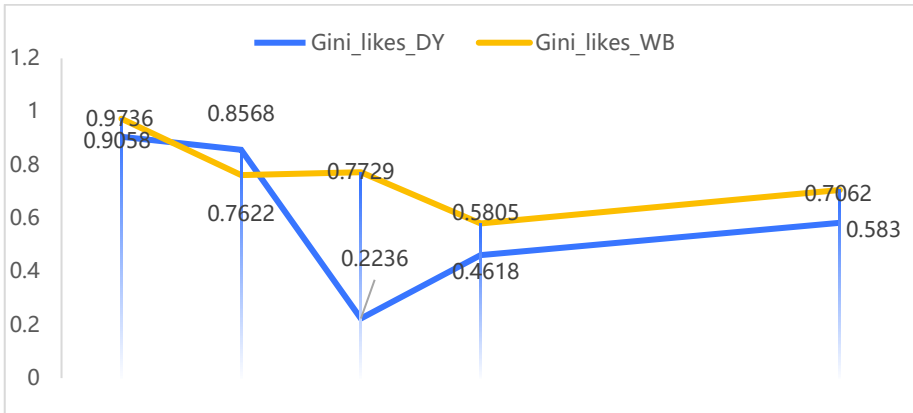
**Fig. 1.** Gini coefficient of likes per day on Weibo and Douyin.

3.2.3 Instability of User Influence.

In accordance with Liang and Lee's [3] design, one method to gain a more concrete understanding of leadership (in)stability is to examine the users who ranked in the top ten in terms of the number of likes received on any given day, for each platform. 'If leadership were completely stable, those ten users would remain the same'. In the opposite scenario, the top users in the five days would all be different, 'indicating that at most 50 users would have been on the top ten list only once'.

Douyin. In 9 case-related 'chaohua', there is no certain users posted two or more than two videos, which means one participant only posted one video over the five selected days. This explicates (opinion) leadership was more dispersed and unstable.

Weibo. When comparing with Douyin, the findings on this platform are different. The results demonstrate that the most influential user appeared three times in the top ten list over the five selected days, with three other users appearing at least twice in the top ten list. In total, 42 users appeared in at least one of the five top ten lists, which is 84% of the largest possible number (42/50). Within these 42 users, 38 (90.47%) appeared only once in the top ten lists.

When calculating the coefficient of variation, it is necessary for user who has at least posted two or more articles or videos. Therefore, computing the coefficient of variation on Douyin is not appropriate. However, it could be computed on Weibo, which had 21 users that posted at least two articles in the five selected days, with 7 of them appearing at least once in the top 10 list. Figure 2 systematically compares the coefficients of variation of 7 users' overall rank on the Weibo platform. This section explains the high concentration of (opinion) leadership mentioned earlier. However, (opinion) leadership was more unstable. Therefore, for most users, even those who gained some opinion leadership for a brief period, it was often 'a fleeting occurrence' [3], as a consequence, the results of this study support hypothesis 2, which also suggests that the majority of informal (opinion) leaders are likely to emerge by random chance. Shown in figure 2.
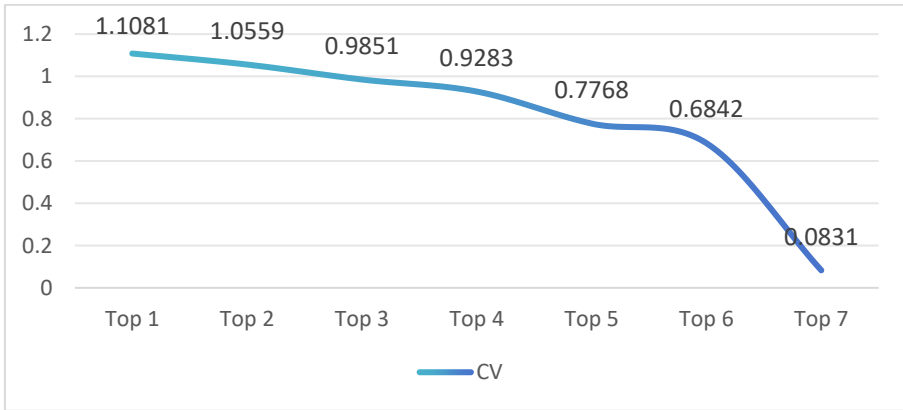
Fig. 2. Coefficient of variation of the top 10 out of 7 users on the Weibo platform.

4   Conclusion

this article attempts to provide nuanced insights and evidence to examine whether the characteristics of a networked social movement, that is, the spread of information on digital social media and the dynamics of informal and diffuse (opinion) leadership, are still applicable to mainland China's mobilizations. The case attracted attention on two Chinese social media platforms, Weibo and Douyin, with tens of millions of views, likes and replies in combine. Participants in this networked social movement engaged with each other and created a symbolic anchor by using the hashtag '#Sanzhi Yang'. Additionally, the empirical data suggests that on both platforms, influence or attention is concentrated on a few participants, although they are informal 'leaders'. However, the influence of leadership is unstable and appears to be decreasing at an aggregate level.

A direction for future studies, which is to examine the aggregate trend of instability in the informal leadership of the networked social media movement in mainland China. Furthermore, the indicator used in this article to measure user influence is limited to 'likes', so another perspective for future studies could be to test 'how personal charac-teristics, content-based factors, and other discussion dynamics might influence opinion leadership' [3].

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