# LEAD DISSEMINATORS ON PUBLIC OPINIONS IN CHINESE SNS - A CASE STUDY OF SINA WEIBO (MICROBLOG)

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#### **ABSTRACT**

This study was based on a study of the leading weibo (microblog) platform in China, focused on the major public incidents in China in the first half of 2011, to study the characteristics and behaviors of lead disseminators on the Weibo platform, the tactics to influence adopted by these lead disseminators, and the possible association between the types of public incidents and the types of Weibo lead disseminators in these incidents, as well as the dissemination mechanism identified in these incidents.

#### **INTRODUCTION**

Microblog is a service enlightened by and similar to Twitter. Microblog has a Chinese name "weibo". Weibo developed so fast in China in the past two years that only two three months after the CNNIC published its census data of a total weibo population of 195 million [1], captured on June 30, 2011, China's weibo users actually well surpassed 200 million. According to "ccidnet.com" on December 21,2011, the amount of weibo accounts registered on various websites has reached 300 million.[2]

## THE SETTING OF THE STUDY

In the numerous major headline news on public events/incidents that were heatedly discussed on Weibo, some Weibo users are active opinion transmitters, some of whom have major impact on the opinions of other users (their followers or "fans" as named by the Weibo platform). Sometimes these impacts can amount to changing the public view of the public event/incident. This study focuses on the active opinion transmitters who have impact on Weibo user population's viewpoint of and response to public events/incidents. Because of the active, central, and influential roles of the active opinion transmitters, we would give them a name of "lead disseminators" (LDs). They stimulated sharp increase of exchange of opinions of other Weibo users, and therefore, they practically helped to disseminate rapidly the information/ discussion/opinions regarding the public incident of interest in amount and in the reach in terms of the number of participants.

We took a sample of public incidents in China or related to China as our sample incidents of study. The range of the sample incidents were taken from the Internet Opinion Status Reports for first and second quarters of 2011, by the ROST Virtual Research Team of Wuhan University, China. [3] [4] The range of the samples consisted 27 major incidents that caught public attention on Chinese Internet. These 27 incidents can roughly be categorized in six types: Government or state-own enterprise corruption; Government power abuse; Faulty operation of governments; Tension in

government-citizen relationship; Notable legal cases; Corporate violations of laws and regulations that caused public health or safety concerns; Society phenomena.

The data capturing was conducted in the following procedure:

- 1. Based on the peak search request on Baidu search engine (the leading search engine in China), set the five days before and after, and the day of the peak search volume, a total of 11 days as the data capture time period.
- 2. Used key words of the incident, captured all Weibo data related to the incident in the "high time" of the incident, which resulted in 180,693 original weibo (microblog) posts.
- 3. Ranked the captured weibo posts, selected 15 most commented weibos and their comments as the sample of the analysis, which resulted in 276,348 weibo comments and 174,131 "retwitted" weibos. The total size of the sample of analysis was 631,172.
- 4. From the 15 most commented weibos for each of the 27 incidents (total 405 weibos), screened off those weibos with number of comments that were less than 100, resulted in 344 weibos that were most commented (each with more than 100 comments).
- 5. We noted and categorized the weibo IDs who posted the most commented 344 weibos according to their number of "fans" (followers), ID verified by Sina or not, individual ID or organization ID, geographical region, occupation (if individual), and the incident(s) involved. These IDs that posted the 344 most commented weibos were our lead disseminators (LDs) in this study. We conducted our analysis with the above data.

## SINA WEIBO'S LEAD DISSEMINATOR (LD) GROUP CHARACTERS

We screened over 175,000 weibos and selected the most commented 344 weibos for analysis. Theses weibos were posted by 175 different Weibo IDs. These IDs (users) had the following characteristics: [5]

#### **ID Verification of the Lead Disseminator (LD) Group:**

One hundred and forty-four (82%) of the 175 weibo IDs were verified of their authenticity of name, position, and contact information, and were given a "V" sign by their ID by Sina Weibo to indicate "verified." In the LD group, most IDs -82% - were verified.

## User Account "Demographics" of the LD Group:

The LD group contained largely individuals (who tended to be male): individuals accounted 67% of all the IDs in the LD group; in contrast, organizational IDs only accounted for 23% in the group.

## **Geographical Distribution of the LD Group:**

The total population on Sina Weibo had passed the 200 million milestone in August 2011, and Sina Weibo is clearly a nation-wide weibo. The lead disseminator (LD) group, however, displays a strong geographical character: most of the LD group IDs were from Beijing (55%), Guangdong (14%), a province neighboring Hong Kong, which led the country in reform and opening since 1980s, and Shanghai (9%).

## The Ranking of Number of Fans in the LD Group

Most LD group IDs had large number of fans: the 175 LD group IDs had an average of 660,000 fans. Among the top-10 weibo IDs in terms of number of fans, seven are individual IDs, all verified, meaning that these are all celebrities/well-known experts of some sort. Among the top organizational weibo IDs, those of media were the backbone.

## **Muti-Incident Opinion Participation**

On the comprehensive influence across different public incidents, the top four ranked IDs were all organizational IDs of media, both traditional and Net-based. Regarding active roles on multiple public incidents, very few individual IDs have such cross-incident impact: only few IDs such as ZhengYuanJie (a well-known writer of children's literature) possessed relatively strong cross-incident impact, while most individual IDs were related to specific incidents

## **Content Categorization of Influence Tactics**

We examined the 344 most commented/most influential weibos (microblogs) and found that they can be grouped by the tactic employed to influence:

- 1. Fact-presenting: These weibos reposted news, or listed facts from news media/sources, without explicitly expressing opinions. This category accounted for 48% of all the 344 influential weibos.
- 2. Opinion providing: these weibos offered opinions or comments on public incidents, clearly expressed their own opinions; accounted for 38% of the 344 influential weibos.
- 3. Humor/Satire: Re-organization and exploration of news facts or social phenomena, expressed them in a humorous or sarcastic manner (10%).
- 4. Survey-interaction (4%). This type set up surveys to poll the opinions of Netters regarding their opinions of a specific public incident.

## ASSOCIATION OF TYPES OF IDS AND TYPES OF INCIDENTS; MECHANISM OF SECONDARY DISSEMINATION

## Types of Lead Disseminator IDs and Types of Public Incidents

We looked into the leading disseminators' activities and roles regarding public incidents in each of the six categories. There were patterns found in this examination:

- 1. Government or state-own enterprise corruption: Weibos on this type of incidents were mostly commentaries (as compared to fact-providing). In the discussions on this type of incidents, the occupations of opinion leaders (most influential subgroup of lead disseminators) were of large variety, such as journalists, writers, directors (of movies/TV programs), professors, and well-known grassroot activists.
- 2. Government power abuse: The unique character of Weibo users' responses to this type of incidents is that individual IDs were far more active than organizational IDs. Twenty-seven IDs were found leading the coverage of this type of incidents, among which only seven were organizational IDs (26%). When a high-profile public incident emerged that involve relatively high level

government entities, the official media would practically be gagged, and therefore it was the individual weibo IDs that were playing active roles since they were not controlled or limited by that rule.

- 3. Faulty operation or governance of governments: Government regulations affect the life of the population. Ordinary citizens practically do not have power to affect the policies, yet they sometimes are not satisfied with the policies due to the (sometimes perceived) negative effects on their own lives. They could do nothing but passively accept the consequences of these regulations. Therefore, many weibos expressed their disappointment or disapproval of the regulations or government entity operations through humor, ridicule, or satire.
- 4. Tension in government-citizen relationship: A very distinct character of public incidents of this type is that parties involved in the incident began to make their voice heard through Weibo. The network public opinions often would divide on the opposite stances. The involved parties in the incident usually put high efforts in Weibo and utilized it as an important means to pursue the discourse power.
- 5. Laws and regulations: This type of incidents were reflected more by commentary type of weibos. The major players (weibo IDs) were professionals, including mainly the attorney group and the journalist group. The former analyzed and interpreted the case from legal aspect, and the latter relay the former's interpretation to the public, and also made known the real-life implications of the laws/regulations/judicial decisions.
- 6. Society phenomena: This type of incidents did not have clear pattern; they tend to be participated and commented by a wide range of weibos, and their controversy or disputes were at lower level compared to the other types of public incidents.

## **Mechanism of Secondary Dissemination**

We attempted to explore the effects of secondary dissemination on Weibo regarding public incidents. We selected several incidents from our sample of 27 incidents, and captured the data of initial dissemination and secondary dissemination, and recorded their respective reaches (measured by how many retweets and/or comments they received). The following (GUO Meimei incident) is one example among the incidents we examined:

On June 20, 2011, a weibo ID named GUO Meimei, verified as "China Red Cross Commercial General Manager", showed off her luxury life on Weibo, arousing huge uproars of Netters, causing the public to question the flaws in the operation of China Red Cross and potential corruption or frauds/embezzlement. In this incident, the initial disseminator were three: GUO Meimei's weibo, China Red Cross official website, and the reports of traditional media of this incident. The secondary disseminators were mostly weibo users. The following is the list of the primary disseminations:

Source	Media	Date	Content	Dissemination
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Prim-	China Red	06/22/11	Declaration: unrelated to Guo	Baidu news search
ary	Cross			409
media	XinhuaNet	nhuaNet 06/23/11 Claiming no relationship with		Baidu news search
			Guo	114
	Red Cross 06/24/11 Declaration of China		Declaration of China	Baidu news search
			Commercial System Red Cross	119
	Red Cross	06/24/11	Second declaration	Baidu news search
				162
	XinhuaNet	06/25/11	Guo incident exposed Sina	Baidu news search
	verification loopholes		verification loopholes	20
	CCTV "24	06/25/11	Red Cross should prove its	Baidu news search
	hours"		integrity	7
	GuoMeiMei	06/26/11	Apology; "Red Cross	RT 17387
	weibo		manager"identity was made up	Comments 14032
	GuoMeiMei	06/26/11	No mal-intention of faking the	RT 16186
			identity; apology to Netters and	Comments 13472
			to Red Cross	
	GuoMeiMei	06/26/11	In reflection; pleading Netters	RT 25273
	weibo		not to follow and scrutinize	Comments 162651
XinhuaNet		06/26/11	Red Cross submitted official	Baidu news search
			complaint to police	34
People's		06/27/11	Public charitable motivation	Baidu news search
	Daily		must not be hurt	105
	Red Cross	06/28/11	Updates	Baidu news search
				2

The secondary disseminators were mostly weibo users. Primary disseminations were re-transmitted and disseminated by influential weibo IDs on Weibo platform, often with their own comments and analysis, or expression of their feelings. The opinion leaders' re-transmission often were well received, creating very effective and powerful secondary dissemination. In this specific incident, the most retweeted and commented top-10 weibos were all individual IDs. Although information sources (such as official news media and the China Red Cross) constantly issued new updates, the interpretations and comments of opinion leaders became very important factors in the development of the incident.

The following is a partial table of the secondary disseminations via some opinion leaders:

Weibo ID	# RT	# comments	Date	# Fans
LiChengPeng	48302	6236	6/29/11	3670875
ShaoYiBo	40497	8550	6/27/11	1779745
ZhengGenLing	35402	7296	6/25/11	5848
YuJianRong	19149	4379	6/26/11	1063552
PanXin	16813	3554	6/27/11	13356

#### REFERENCES

- [1] CNNIC. (2011). *The 28th China Internet Development Status Census Report*, 7/19/2011, http://cnnic.net/dtygg/dtgg/201107/W020110719521725234632.pdf, accessed September 20, 2011. http://www.cnnic.net.cn/dtygg/dtgg/201107/t20110719\_22132.html
- [2] http://news.ccidnet.com/art/1032/20111221/3452557\_1.html
- [3] Shen, Y., Deng, M., Zhou, L., Zhu, J., Zhang, C., Ying, S.(2011), The Internet Opinion Status Reports for first quarters of 2011, Working paper, The ROST Virtual Research Team of Wuhan University, College of Information Management, Wuhan University, Wuhan, China.
- [4] Shen, Y., Zhou, L., Lu, H., Liao, J., Peng, Y., Song, C., Shen, C., Wu, L., Zhu, Q., Ying, M., Wang, H.(2011), The Internet Opinion Status Reports for second quarters of 2011, Working paper, The ROST Virtual Research Team of Wuhan University, College of Information Management, Wuhan University, Wuhan, China.
- [5] Lu, H., Guo, H., Liao, J., Shi, H., and Shen, Y. (2011). Research on opinion active groups on Sina Weibo, Working paper, College of Information Management, Wuhan University, Wuhan, China.