

Opinion Leaders: The Driving Force of Political Discussion in Social Media

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A Thesis Submitted in Partial Fulfillment of the Requirement for the Degree of Master
of Science in Mass Communication

Middle Tennessee State University

June 2013

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I dedicate this research to my parents. Love you, Mom and Dad.

Also dedicate this research to the braveries, who are taking risk to say “I disagree! ”

ACKNOWLEDGEMENTS

I would like to thank Chenglong Liu (a.k.a. @数据挖掘 php) for providing precious data, if it wasn't him, this study won't exist. I would also like to thank Dr. Ken Blake and Dr. Tricia Farwell for giving valuable advice for the study, inspiring me with new ideas. Finally, I would like to thank Dr. Jason Reineke for believing me from the beginning and helping me through the whole time.

Abstract

Social media, along with the birth of web page based data-mining programs, has provided new opportunities for opinion leadership research. The Chinese people have not only embraced the innovation of social media, but also take advantage of it as a test field for civic participation and political activism. The present study was designed to investigate the effectiveness of opinion leadership via social media when the discussion topic is politics. The results indicated a strong agreement between the opinion leader and followers as well as a reinforcing effect where agreement was later accepted by others. A third step of influence flow was identified where followers became the intermediates between the leader and other users. The notion of opinion leader should be broadened: instead of focusing on media usage, the specialty and expertise of the leader might be the primary source of credibility, which leads to more effective persuasion and influence. Limitations and future direction of the study are also addressed.

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CHAPTER ONE: INTRODUCTION

It has been 69 years since the “two step flow” communication hypothesis was introduced by Lazarsfeld and his colleague in 1944. During the past decades, the media industry has changed tremendously, as has research on mass communication. With the invention of the Internet and Web 2.0 technology, audiences today are no longer an isolated “mass.” As Glynn, Herbst, O’Keefe, Shapiro, and Lindeman (2004) conclude,

...the (same) satellite capabilities, attended by rapid innovation in the computer industry, allowed greatly enhanced personal interactive communications in the 1990s...e-mail, and World Wide Web sites have emerged as significant communication channels, bridging mass communication with interpersonal communication, blurring many distinctions between the two concept. (p.408)

Social networking websites, a new media platform incorporating interpersonal networks have gained much attention from society at large and media scholars alike. A Chinese micro blog website, Weibo.com (Sina), which is based upon Twitter, is the focus of the present research.

Weibo has developed a reputation as a place to track public opinions (Zhang, 2012). For many Chinese micro blog users, the website is more than just a place to have conversation but also a specific channel to express their political opinions due to the control of political speech in real life. Government performance is one of the most frequent and contested discussion topics. According to the *Annual Report on Public Opinion in China (2011)*, 22% of public scandals first broke on the website and were

then covered by traditional media such as newspaper and television, e.g. July 23rd 2011 high-speed train crash accident in Wenzhou city, school bus accident in Gansu province, and celebrity got arrested for drunk driving. Those incidents were highly concentrated on public affairs; some of them even caused the legal system to get involved and resulting in the resignation of local officials (G.M.Yu, 2012).

The Weibo website, along with micro blogging communication, has also become the center of communication studies in China, including examinations of opinion leadership withing the micro blog communication sphere. Research in this area has examined topics such as the identification of leaders, what are the characteristics of leaders, and the nature of leaders' influence (Z.X.Liu, N.H. Liu, Ma, He, and Z.Q. Liu, 2013).

The present study empirically examines the influence of opinion leaders on the public through social media. Questions such as who should be considered an opinion leader, and what, if any, interpersonal moderators there are in this process, will be addressed. Also, the study willexamine whether the classic opinion leadership theory is still applicable in this new context and possible modifications. By stressing the arguments above, the researcher hopes to contribute to the field's current understanding of opinion leadership.

CHAPTER TWO: LITERATURE REVIEW

The classic two- step flow theory and its modification

In 1944, Lazarsfeld, Berelson, and Gaudet introduced a new media hypothesis called the *two-step flow* in their book “*The People's Choice*.” The hypothesis was developed based on a panel study of 2,400 voters in Erie County, Ohio, during the 40th U.S. presidential election. The research group interviewed the panel repeatedly from May to October 1944 regarding their decision making process during the campaign. Instead of finding empirical support for the direct influence of media messages on voting intentions, the researchers found that informal interpersonal contacts have a greater impact on voters than radio or newspapers.

The resulting two-step flow hypothesis argues that information from the media moves in two distinct stages. First, the information is sent and individuals who pay close attention to it receive the message. Second, those individuals pass the information, along with their own interpretation, to more people. These individuals are called *opinion leaders*.

Much additional research on the two-step flow followed the original voter panel study. Based on four important studies, Katz (1957) wrote a report as an update of the hypothesis. As Katz pointed out, in the panel study, the “leaders” were somewhat self-designated with only two questions that were used as scale: (1) “Have you recently tried

to convince anyone of your political ideas?” and (2) “Has anyone recently asked you for your advice on a political question?”(p.63). Thus data collection could not distinguish leaders from “their respective followers,” but only compared “leaders and non-leaders in general.”(p.64) Therefore, that leaders paid more attention to the election than the non-leaders

“...cannot be taken to mean that influence flows from more interested persons to less interested ones. To state the problem drastically, it may even be that the leaders influence only each other, while the uninterested non-leaders stand outside the influence market altogether” (p.64)

Revised methods, such as asking respondents to describe the other with whom they interacted, conducting “snowball” interviews, and interviewing the entire community, were proposed to address these issue of leader identification, interest, and influence in an economical and practical way. (p.77) Later studies, also provided important additions to the classic theory. First, there is a high degree of homogeneity of opinion within social groups. As Katz put it, “opinion leaders and the people whom they influence are very much alike and typically belong to the same primary groups of family, friends and co-workers” (p.77). Second, interpersonal relationships are not just channels of information, but also sources of social pressure, as well as sources of social support.¹

¹ The four studies reviewed by Katz was Merton’s study of interpersonal influence and communications behavior in Rovere; the Decatur study of decision-making in marketing, fashions, movie-going and public affairs; the Elmira study of the 1948 election campaign reported by Berelson, Lazarsfeld and MacPhee; and Coleman, Katz and Menzel’s study on diffusion of a new drug among doctors.

Rogers (1961) later modified the methods in the panel study by adding another four questions into the scale. The new scale was used in a study on 104 Ohio farmers on the subject of the diffusion of new farming ideas: (1) During the past six months have you told anyone about some new farming practice? (2) Thinking back to your last discussion about some new farming practice, were you asked for your opinion of the new practice or did you ask someone else? (3) Compared with your circle of friends are you more or less likely to be asked for advice about new farming practices? (4) When you and your friends discuss new ideas about farm practices, what part do you play? Mainly listen or try to convince them of your ideas? (5) Which of these happens more often, you tell your neighbors about some new farm practice or they tell you about a new practice? (6) Do you have the feeling that you are generally regarded by your neighbors as a good source of advice about new farm practices? (as cited in Rogers & Cartano, 1962)

Rogers and Cartano (1962) used correlation tests to compare three approaches of measuring opinion leadership: sociometric, key informants, and self-designating (six item scale). Sociometric technique consists of asking group members whom they go to for advice and information about an idea. Key informants in a social system may be asked to designate the opinion leaders. The informants are selected subjectively as persons likely to know who the opinion leaders are. The self-designating technique consists of asking a respondent a series of questions to determine the degree to which he perceives himself to be an opinion leader. They believed the six-item self-designating

opinion leadership scale to be “reliable, valid and unidimensional,” along with advantages such as being easy to administer and easy to adapt to other studies (441).

Troldahl (1966) argued that people sought advice when the message they received was contradictory to their pre-existing beliefs. An experiment was conducted among 318 residents of Middlesex County, MA, to test this hypothesis. Two thirds of 318 suburban *Bulletin* subscribers were randomly assigned as an experiment group while the rest were assigned as a control group. The researchers designed six messages regarding the care of lawns, shrubs, flowers and other plants. Those messages were printed in an October 1962 issue of the *Bulletin*, and were only distributed to experiment audience. Personal interview were conducted before and after the messages were sent out. The results suggested a new model-“followers who were exposed to media messages that were inconsistent with their predispositions would initiate the second –step flow of communication” (p.622).

Market research is another area where two step flow theory has been widely tested. Corey (1971) designed two studies: a 1964 study of food preparation ideas and a 1969 study of automobiles to test the two step flow hypothesis from a marketing point of view. The first study involved personal interviews among 299 female heads-of-household respondents and the latter was conducted through telephone interview among 755, male and female, respondents. The studies confirmed that opinion leaders are both more active in the activities directly related to the topic they have leadership status on, and have

more knowledge about the topic. Corey (1971) concluded that opinion leadership could be used “effectively to predict important aspects of market behavior with specific product categories” (p.51).

Summers (1970) studied the identity of women’s clothing fashion opinion leaders. Besides demographic and sociological traits, he found that personality, attitudes and values might be important factors for identifying opinion leaders. According to Summers’s (1970) findings, opinion leaders on women’s fashion tended to be more progressive, outgoing and susceptible to change. Media exposure, especially to women’s magazine, and fashion involvement were also strongly associated with opinion leadership.

Watts and Dodds (2007) took a different approach to examining the effectiveness of opinion leadership. They tested the two-step flow hypothesis using “a series of computer simulations of interpersonal influence processes” (p.441). They argued that “large cascades of influence are driven not by influentials but by a critical mass of easily influenced individuals” (p.441). It is not the well-read, highly informed and respected “influentials” who influence others, but rather “a critical mass of easily influenced individuals influencing other easy-to-influence people” (p.454).

Glynn et al (2004), described the two-step flow model as one that “... preassumed strong, stable, primary group relationships, with influentials in specific areas of expertise using established media more than other people and passing along to ‘followers’

interpretations of media messages” (Glynn et al., 2004, p. 437). However, with the development of new technology, people can now more easily find in-depth information for themselves through the Internet without relying on opinion leaders. The strong, stable, unmediated, primary group relationship required by the two-step flow theory may have been shaken by this development. Are the two-step flow theory and its central premise of opinion leadership still applicable in the age of Internet? Do we need new theories to explain how messages are transmitted?

Opinion Leadership in the age of the “Internet”

L. R. Li and Zhang (2012) argued that people need trustworthy sources refer to when they have doubts about the information they find online. They stated that the enormous amounts of information conveyed by the Internet have raised many questions: who should we listen to, how can we absorb such a vast amount of information, and how do we decide what is real and important and what is fake and insignificant? They contended that it is difficult for normal people to judge the value of a piece of information in front of them. Therefore, people still need opinion leaders to help them make a decision. L. R. Li and Zhang (2012) also pointed out that opinion leadership requires the recognition of a certain, critical amount of normal Internet users. It is the users’ choice to determine which blogger is their leader; the process of choosing is itself

expressive. *Recognition* is at the core of the leader-followers relationship. Normal Internet users recognize the leaders and interact with them. Through interaction, more and more people recognize the value of the leaders and identify them as such; when such identification is gone, recognition is gone as well (Li & Zhang, 2012). Similar argument was drawn by Campus. Campus (2012) believed trust is the essence of people's interaction online especially during political discussion; therefore more attention should be paid to the discussion itself. And also the definition of opinion leader may need to be broadened under the circumstance.

Weblogs or *blogs* are one of the most prominent places where people express their opinions online, which raises the question of whether opinion leadership is present in the blog sphere? Or can bloggers be regarded as opinion leader? Watts and Dodds (2007) do not think that bloggers are opinion leaders. They contend that the lack of face-to-face contact stops the interpersonal relationship from forming. They say that opinion leaders "exert interpersonal influence, while the influence of the blogger seems closer to that of a traditional newspaper columnist or professional critic than to that of a trusted confidant or even a casual acquaintance," (p.447).

Song, Chi, Hino, Tseng (2007) have a different perspective. They argue that the opinion leader should be considered in terms of social influence, with which one can directly or indirectly impact others' thoughts, emotions, or actions. Bloggers fit these criteria according to the authors.

Others focus on whether bloggers are political opinion leaders offline as well as online. Kavanaugh concluded that opinion leaders (who blogged) have higher political interests and activities than other bloggers (such as personal bloggers) both online and offline (Kavanaugh, Zin, Carroll, Schmitz, Perez-Quinones and Isenhour, 2006).

Other than bloggers, opinion leaders were also found in Internet forums. Himelboim, Gleave and Smith (2009) used data gathered from Usenet newsgroups to identify *discussion catalysts*, or users who received a disproportionate number of replies. Discussion catalyst status was found to play a key social role in mediating the flow of information. Most of them act as “filter and amplifier” of the traditional news media (p.771).

Welser, Gleave, and Fisher (2007) used data visualization methods to reveal the existence of structural signatures within an online discussion forum; their data was also collected through Usenet news group. The goal of their study was to “distinguish the signatures of one role from others, the role of ‘answer people’” (p.1). They defined *answer people* as individuals whose dominant behavior is to respond to questions posed by other users. The typical behaviors of answer people involved “contributing one or a few messages to discussions initiated by others, [and answer people] are disproportionately tied to relative isolates, and hav[e] few intense ties... in their local networks” (p.1).

While the debate over the concept of opinion leadership remains, research methods have improved due to the development of new information technology. Now researchers can track the actual flow of messages transmitted between individuals using social media. Metzgar and Maruggi (2009) used a social media-tracking tool called Radian6 to examine key terms that were discussed in four seven-day periods after four presidential debates during the 2008 election. Himmelboim, Gleave, and Smith (2009), in their study of online political discussion catalysts, “analyze patterns of threads initiation and reply from more than 16,000 authors in 6 months from 20 political newsgroups collected from the Microsoft Research Netscan dataset. Message content was retrieved from Google Groups” (p. 776). Lu, Guo, Liao, Shi and Shen (2011) also used data generated by data mining software in their article, which will be discussed later. In many ways, the validity issues inherent to the self-reports used in the early two-step flow opinion leadership studies is being overcome through the use and examination of new technologies.

Social Media and Opinion Leadership

Social media are a relatively new area of interest in academic communication research. The term social media is often used to refer to social network site such as Facebook, Twitter, and YouTube. Boyd and Ellison (2008) defined social network sites as

...web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system (p.211)

This definition emphasizes the “social” side of social media where people publicly display their interpersonal connection with others. “What makes social network sites unique is not that they allow individuals to meet strangers but rather that they enable users to articulate and make visible their social network.” (p.211).

The users of social networking sites are often asked to set up a profile that contains information like age, location, a personal photograph and interests. As Sunden (2003) stated “profiles are unique pages where one can ‘type’ oneself into being” (p.3). After joining the website, the users are typically offered a list of other users whom they may have a relationship with, such as high school classmates. Some websites refer to these relationships as “Friends,” like Facebook. Others label it as “Follower” or “Fans,” like Twitter. Although Facebook “requires bi-directional confirmation for Friendship;” Twitter does not (p.213). “The public display of connection is a crucial component of

SNSs,” as Boyd and Ellison argued, “The Friends list contains links to each Friend’s profile, enabling viewers to traverse the network graph by clicking through the Friends lists. On most sites, the list of Friends is visible to anyone who is permitted to view the profile...” (p.213).

How does opinion leadership research fit into the context of social media? Liu (2011) suggested there were five dimensions of opinion leader research in the context of social media communication. Opinion leaders function as an information hub among social media who filter the content and set the agenda; the second role opinion leaders are playing is the “interpreter,” which is maintained through the audience giving positive feedbacks to the leader. The other three approaches consider opinion leader as the filter for information, the messenger of information and the moderator of information.

The case of Twitter

Twitter is discussed here as a unique, distinct medium that is different from Facebook and other social network websites for the following reasons:

- (1) It has a strict limit of 140 characters per post, which requires brevity of the expression.
- (2) It does not require a bi-directional confirmation to establish a relationship². As

Kwak, Lee, Park, and Moon (2010) illustrated, “a user can follow any other user,

² YouTube, but the content exchanged among the website are mainly video which is essentially different than text, which is what the study concerning.

and the user being followed need not follow back. Being a follower on Twitter means that the user receives all the messages (called *tweets*) from those the user follows” (p.591). Users can also *re-tweet* the messages he or she find to be interesting. “The re-tweet mechanism empowers users to spread information of their choice beyond the reach of the original tweet’s followers” (p.591).

It is crucial to address the nature of Twitter as a medium here. Twitter functions via users following other users. When a user *A* follows a user *B*, *A* automatically receives all the status that *B* posts; this following relationship does not require the consent from the other party. In other words, if *B* has a large number of followers, he or she has then arguably become the center of a network. Therefore, it is fair to characterize communication via Twitter as both interpersonal as well as massive.

Twitter’s influence was brought to public attention during the 2008 United States Presidential Campaign, which was described as the “first social media election” (Hesseldah, MacMillan,& Kharif, 2008). Along with Facebook, YouTube, and Flickr, Twitter engaged young people in particular in political discussion (Mongeau, 2012). Yet another study showed that online media usage does not significantly relate to political self-efficacy or involvement. Kushin and Yamamoto (2010) surveyed 407 college students two weeks before election night on 2008. The results showed that traditional media, such as newspaper and radio, were still important channels encouraging young adults to engage in political discussion. Attention to social media alone was not

significantly associated with political self-efficacy or situational political involvement while attention to radio was positively related to political self-efficacy and attention to newspapers is positively related to situational political involvement. Young people do not usually actively search for political information but rather encounter it while doing other things (Kohut, 2008), including browsing Facebook statuses or Twitter feeds. On the other hand, As Kushin and Yamamoto stated, online political expression is significantly related to situational political involvement but not political self-efficacy: “this indicates that a desire to express what one has learned is connected to a desire to learn about the election. As young adults go online to express opinions, discuss issues, or share information, they become more cognitively involved in the election” (Kushin & Yamamoto, 2010, p.624).

As of December 18th of 2012, Twitter has more than 200 million active users all over the world (O’Carroll, 2012). With the huge amount of information flowing, how do people receive and understand it all? What are the roles of the opinion leaders in the context of social media? Wu, Hoffman, Mason and Watts (2011) developed a computer algorithm used to analyze 260 million out of 5 billion tweets they gathered through a computer coding system and examine the relationships between them. They reported that about 20,000 *elite users* (such as celebrities, media, organizations, and bloggers) are responsible for 50% of the tweets. People get their news directly through the elite users as well as through intermediaries- 490,000 ordinary, or non-elite, users. Wu et al. (2011)

argued those non-elite intermediaries are the opinion leaders. The authors stated that the classic two step flow theory is still applicable in today's Twitter-sphere. They concluded in their report "the original theory which emphasized that opinion leaders were, as Katz and Lazarsfeld put, 'distributed in all occupational groups, and on every social and economic level,' corresponding to their classification of most intermediaries as ordinary" (p.7). The intermediaries also received some of their information through people's re-tweeting, like their followers, but still have higher exposure to the media than their followers. This leadership is still subject to the numbers of followers, "for whom they can act as filters and transmitters of the media content" (p.7).

Weibo, the Chinese Microblog

In 2009, after several attempt to localize Twitter, the major website Sina.com finally introduced its Twitter analog, called Weibo, meaning microblog. Sina-Weibo has grown rapidly since while Twitter is remains blocked by the Chinese authorities as of this writing. In April, 2011, Sina.com decided to separate Sina-Weibo from its daily operation, setting up an independent division for the micro blog service. They changed the name Sina-Weibo to Weibo, created a new logo, and placed the site at a new domain: Weibo.com. (Li, Q., 2011). By the end of 2012, Weibo has more than 46 million active users among 500 million total registered users, (Xinhua News, 2013).

With the large amount of users, the influence of micro blogging is not to be overlooked. One example of the site's influence occurred on May 29, 2010, at 9:30 a.m.

when Xiaobo Zhao posted a status asking simply “how far can one tweet go?” on Weibo-Sina. This post was re-tweeted by countless Weibo users. By May 30, 11:00 a.m., this post had been re-tweeted 12,000 times. Geographically speaking, the people who re-tweeted this post were spread all over the 34 political regions of China, plus another 70 cities in 20 countries (Kong, 2012).

Besides Weibo (Sina), there are other micro blog services in China. Portal sites such as Tencent.com, 163.com, and Sohu.com also introduced their versions of micro blogs. According to China Internet Network Information Center (CNNIC), the daily visit per user of Weibo(Sina) was lower than two, which was still higher than the micro blog services provided by both Tencent.com and Sohu.com. The daily average length per visit per user was between five and six seconds, while the same index of Tencent micro blog was close to two seconds and the same index of Sohu micro blog was slightly above two seconds (Editorial, 2013). It would be more meaningful to choose Weibo (Sina) as the subject of research since it is significantly more popular than other micro blogs in China.

The official name Weibo will be used to refer to the micro blog service provided by Sina.com. All of the literature mentioned below regarding micro blog services in China is based on Weibo (Sina) platform unless otherwise indicated.

Weibo encourages its users to set up an accurate, factual personal profile. They also invite celebrities, media agencies, public officials, and public figures to use their service in order to gain greater publicity. The policy changed from encouragement to

requirement in March 2012: The website requires new users to provide either a National Identification number or a phone number to register, (Xu, 2012). Also, Very Important Person (VIP) status may be granted as verification of users' real identity and importance (the parallel of Twitter's verified account). There are strict rules for granting VIP status, including meeting requirements for a certain number of followers and providing official credentials to the site to pass identity authentication³. It is clear that Weibo sets the social elite in a separate category from ordinary users through this process. And little by little, this administrative decision is demonstrating its deeper political implications, which few likely anticipated in the beginning.

Weibo and the Opinion Leader Research

Studies of Weibo can be categorized according to two main approaches. Since Weibo functions very much similar to the Twitter, the first type of study addresses the question: What are Weibo's unique characteristics compared to Twitter and other social media? What about users' behavior on Weibo and Twitter: Are they the same? L. Yu

³ Weibo's VIP authentication requires the account to be tied with real identity information such as phone number, work credentials, real profile photo; must have 30 followers as well as follow 30 people. This is not the same as paid membership, which was granted with different status symbol other than the yellow V. For more information: <http://verified.weibo.com/verify/applystd?fr=home&frpos=leftnav&sudaref=verified.weibo.com>

(2011) compared Weibo and Twitter, and concluded that essentially the two services are very similar, while some functions and operation do differ. Both allow users to post whatever they want within a limit of 140 characters. Weibo users are encouraged to insert pictures, facial expressions, video and other multimedia documents. Besides re-tweets and comments, Weibo allows the next user to see the comments made by previous users who re-tweeted the post. The detailed re-tweeting and comments are also available to the public. In this way, it provides a clear channel to see the transmission of each post. By tracking people's comments, it also encourages the formation of opinion groups. The rationale behind this is that users can find other like-minded users and follow them when reading other people's re-tweets and comments.

Nielsen conducted an online survey in September 2011 among micro bloggers who are 20 or above in China and United States. The survey showed that

...19% of Sina Weibo users use their real names, 26% frequently post personal messages, 41% allow websites to obtain messages about their daily lives with others and 47% have concerns about their colleagues on microblogging website. In comparison, 41% of Twitter users use their real names, 4% frequently post personal messages, 17% allow website to obtain location information, 64% are willing to share information about their daily lives and 19% have concerns about their microblogging colleagues (Staff Reporter, 2011; Wang, 2011).

The report also stated that Weibo users are more active than Twitter users as

... 66.2% of Sina Weibo users issue more than one online message per day, while the figure was 41% of their counterparts on Twitter. In addition, 60% of Chinese Internet users responding to the poll had Sina Weibo accounts, while just 19% of U.S. netizens had Twitter account (Staff Reporter, 2011; Wang, 2011).

Yu, Asur and Huberman, (2011) compared the trend topics on Weibo and Twitter and found that “there is a vast difference in the content shared in China, when compared to a global social network such as Twitter. In China, the trends are created almost entirely due to re-tweet of media content such as jokes, images, and videos, whereas on Twitter, the trends tend to have more to do with current global events and news stories.” (p.1)

Gao, Abel, Houben and Yu (2011) concentrated their study on user’s repost (re-tweet) behavior on Weibo and Twitter. Twenty four million tweets posted by more than 1 million users from Twitter, and 22 million micropost posted by more than 6 million users from Sina Weibo were analyzed. The results suggested that Twitter users perform repost activities more frequently and are more likely to use external *Uniform Resource Locator (URL)* and hashtags when propagating information. They also looked into the “sentiment characteristics of propagated messages.” The majority of the repost from both websites are considered as neutral. The ratios of reposted messages of each user were calculated as well. “On Sina Weibo, 91% of the users repost more positive messages than negative ones in comparison to 75% of the users on Twitter.” At the same time, on Sina Weibo, there was a “considerable high fraction of users (32%) for whom more than half of the reposting activities change the sentiment of the original post in comparison to just a few of such users (less than 1%) on Twitter” (p.5). The authors concluded Twitter

seems to be a platform for sharing information while “on Sina Weibo the actual discussions and conversations seem to be more predominant” (p.4).

The second approach of studying Weibo is to study the people who use Weibo. The most common topic in this line of research is the existence and role of possible opinion leaders.

B. Li (2012) selected 40 issues that are considered *trend topics* by the website and identified 283 opinion leaders who encouraged discussion of these topics. Those leaders were then put into four categories based on the number of topics they discussed and the frequency of their appearance in discussions about topics: single-topic and temporary leaders (ST leader); multi-topic and temporary leaders (MT leader); single-topic and stable leaders (SS leader); multi-topic and stable leaders (MS leader). He then took a psychological approach to examine the personal traits of those opinion leaders. One-hundred and thirty-seven leaders responded to his survey. The results showed a significant difference between ST leaders and MS leaders. MS leaders’ personal traits tend to be more rational and outgoing, they like to share experience with others, play an active role of persuading others when communicating with others, and think of themselves as reliable news sources.

Bao (2012) identified two types of opinion leaders in the online context. *Grassroots leaders'* real identities are not widely known while *elite leaders* have already become leaders offline before they migrated to the online context. Those leaders usually belong to the elite class of the society. They are highly sensitive to changes in society, good at analyzing phenomena as well as finding the truth, and showing rationality and foresight when engaged in discussion. These characteristics were amplified in the online setting, directly influencing the audience. On the other hand, the Internet gave ordinary people the access to directly question these elites. This spirit of questioning authority can gain attention and support from others, making the non-elites part of the leadership.

Lu, Guo, Liao, Shi and Shen (2011) conducted a content analysis to study Weibo's active users' behavior based on their roles in 27 major public incidents (or scandals) that were discussed online such as a *Discussion of Raising the Personal Income Tax*, a *Burglary in the Forbidden City*, and *Saving Abducted Children* (see discussion below). These incidents were chosen by *The ROST Project* of Wuhan University, China as "hot social issues" in the first and second quarter of 2011 (there were a total 43 incidents)⁴. The researchers then randomly selected posts based on the contents of people's tweets: mainly based on whether they were talking about one or

⁴ ROST virtual learning team, led by Yang Shen of School of Information Management, Wuhan University, Wuhan, China. The team developed several software: ROST anti-plagiarism software, ROST WebSpider, ROST FulltextSearch, Rost content mining. See more at http://sim.whu.edu.cn/teacher/tea_detail_en.php?tc_id=190&dept=14

more of the 27 scandals or not. Three-hundred-forty-four tweets posted by 175 users were finally chosen for analysis. Among the 344 tweets, 48% of them were factual statements, 38% were comments on the scandals, 10% were wisecracks, and 4% were questions asked about the scandals. Opinion leaders, mostly media professionals, tended to post facts and comments. The authors discussed the implication that media professionals are still the center of communication. This leadership is not only demonstrated in the overwhelming portion of journalists participating in the discussion of these major incidents but is also illustrated by their credibility- the more respected the news agency they work in, the more influential these journalist opinion leaders were.

Similar conclusions were drawn by Wang and Xie (2012) who studied public opinion among Weibo users regarding the Wenzhou Train collision on July 23, 2011, which killed 40 people and injured 192. They found that ordinary people were acting as disaster witnesses to break the news at the first stage of communication (July 23th) along with some opinion leaders directing attention to the accident. In the second stage of communication (July 24th – July 29th), a massive number of tweets were posted related to the accident. On July 25, 278,768 tweets were posted. From July 24th to July 29th 2011, the first five-day period after the crash, 813,947 total tweets were posted: 174 posts from 115 users were influential in transmitting information and generating bigger debates about both disaster relief and the problems within the public transportation system (p.84). Opinion leaders lead the debate by questioning the government's attempt to cover-up

aspects of the train wreck and control media coverage of it. Traditional media also had a major impact on the development of the scandal since they were the ones posting real time information through their personal Weibo accounts. Opinion leaders would retweet news articles and other journalists' posts. Journalists used Weibo as an alternative to send out the news, especially after the local government became unwilling to cooperate by providing information and began preventing journalists from interviewing authorities and victims. The debate moved from criticizing the progress of disaster relief towards the local government's attempt to cover things up. Among opinion leaders, those with VIP status (meaning they had passed the website's authentication and review process) gained more retweets; this could be because ordinary users saw them as more credible sources of information.

Rather than treating opinion leaders as individuals and studying their role in specific incidents, some scholars regard opinion leaders as a group and examine their effects on the society as a whole. Zhao (2012) distinguished Weibo celebrities from Weibo opinion leaders. The former are usually famous and influential in real life: They are the news. Therefore it is easier for them to set a personal agenda on Weibo. These Weibo celebrities are most concerned with maintaining their personal image. Weibo opinion leaders sometimes overlap with Weibo celebrities, but have unique traits: They are educators, representatives of a diversified society, and the initiators of social movements. Opinion leaders are usually experts in specific areas of public interest.

Besides spreading the news, they also provide personal interpretations and background information. By reading the opinions of the leaders, the ordinary users are educated and informed. Opinion leaders come from different backgrounds and different social classes. They sometimes disagree with each other. Different leaders represent different ideas and values that make Weibo a marketplace of diverse values and ideas.

Opinion leaders also take the responsibilities from the state-controlled media to exercise public scrutiny. Jing and Wang (2011) argued that because most opinion leaders maintain their real identities online, they are more credible than other news sources and that this, in turn, enhances their influence. The leaders come from different sectors of society, making it easier for the public to evaluate the government's performance in different fields. Also the leaders consciously and unconsciously promote a new ethos in society, including values such as freedom of expression, the media's role as surveillance of the environment, and an interest in political system reform.

Ma (2012) asserted that opinion leaders influence the public in four ways: setting an agenda, waking up so-called silent majorities, leading public discussions, and interacting with traditional media. Their expertise and real life identity status makes them the gatekeepers and authorities when setting agendas. Leaders are also responsible for generating discussion online, which encourages ordinary users to participate without fear of isolation through re-tweeting and commenting, which they cannot normally do with newspaper and TV news program. Opinion leaders are often subject to high media

exposure; they post comments on news articles and link them back to the original news website. The interaction between opinion leaders and traditional media breaks geographic boundaries and expands the influence of otherwise local media.

Weibo and Public Sphere Construction

Not only opinion leaders take part in the political and societal discussion; ordinary users are also often eager to speak up on the Weibo platform. Arguably, Weibo has become an important part of many users' civic lives.

Xing (2012) pointed out that one of the most unique and important characteristics of Weibo are its public, social connections. The social importance of Weibo becomes obvious when it functions as a news outlet. On Jan. 25th, 2011, Sina used its micro blog service (latter called Weibo) to set up an account called *Saving Abducted Children*. In one month, the account attracted 240,000 followers and collected 3,500 photos of homeless children who were forced by their abductors to beg for money on the streets. Those photos were used to help parents and police to identify possible missing children. This incident was soon discussed by national mass media and became one of the top stories of the year (p.2). Weibo has been used as the platform for civic engagement. Therefore, Xing (2012) argues that an examination of public affairs is essential to the study of Weibo communication (p.3).

With the growth of the website as well as the development of the ethos of civil society in China, scholars have begun to ask: are we witnessing the formation of a virtual public sphere in China based on the technology of micro blogging? Fang, X. Zhang, and J. Zhang (2012) suggested the micro blog has become the basis for developing the mechanism of political discussion and civic participation. The number of registered users of micro blog websites as well as social organizations and government agencies are growing day by day (p.95). In addition, they selected 50 topics that received more than 200,000 posts among Weibo (Sina), Micro blog (Tencent), Micro blog (163.com), and Micro blog (Sohu)- 26% of these topics concerned bettering people's livelihood, and 16% of them dealt with the government's activities (p.98).

Lin (2012) recognized that the micro blog sphere exhibits some similarity to the public sphere: it is open to everyone without regard to one's age, social status, education, or religious belief. It is also less constrained by the local authorities, which promotes social debate and civic participation. People use the micro blog to, among other things, discuss matters of public interest, expressing their ideas freely, and form public opinions that promote social development.

Jiang (2012) has a different perspective on the matter. She argued that micro blogging does not change the fact that it is still elite users, the VIPs, who set the agenda; the ordinary users cannot generate a meaningful discussion without the participation of the influentials, such as journalists, scholars, even celebrities. Thus hegemony of a kind

still exists in the micro blog sphere. Other than that, the lack of rationality is also a problem of micro blog communication. People tend to show only anger and blame but not express rational reasoning and discussion when negative news comes out.

Mozur (2013) criticized Weibo “to be less like a town square and more like the Speaker’s Corner in London’s Hyde Park, where a vocal minority dominate discussion.” This conclusion was drawn from a study, conducted by researchers at Hong Kong University, which suggested small portion of the users are actually posting and reposting messages. The researchers found, over a seven-day period, 0.5% of users posted more than 20 messages, and another 0.5% reposted more than 40 unique messages; while 86.9% of the users wrote no original Posts and 88.9% did not repost any original message from another account (Fu & Chau, 2013).

The Debate over China’s Democracy

On December 26, 2011 Chengpeng Li, a commentator and columnist⁵, posted a tweet using an external link to publish an article in response to Chinese writer Han Han’s piece about the potential for a democratic system in China, which Han had posted two days before on his personal blog. This specific tweet started a debate over the democracy

⁵ As of October 2, 2013, Li has 7,317,196 followers on Weibo, which may not be the exact count of Li’s followers on December 26th 2011 when the event started.

and political reform situation in China on Weibo's platform: the tweet was re-tweeted 20,278 times. At that time, Han did not have a Weibo account therefore did not directly engage in this discussion on Weibo's platform.

The content of Li's original tweet was a link to his article *Democracy means not calling (the Communist Party) Daddy* (民主就是不攀亲) on his personal blog. The article heavily criticized the lack of freedom in elections, family reproduction, and political speech. Li argues that the lack of political cultivation should not be used as an excuse for denying political rights to citizens. He himself later re-tweeted the original tweet 12 times. By taking advantage of the commenting function, he further explained his ideas regarding democracy and democratic practice.

Xijing Hu, on the other hand, expressed his disapproval towards Li when re-tweeting Li's tweet. Hu has 4,071,442 followers on Weibo⁶; he is also the chief editor of *Global Times*, a Chinese daily newspaper under the auspices of *The People's Daily*. The latter is the mouthpiece of The Communist Party of China. Hu's disapproving opinions were later re-tweeted by Li and others as well. In other words, Li confronted Hu by re-tweeting Hu's post, effectively creating a debate.

On December 26, 2011 10:58 a.m., Li posted the first tweet which linked to his personal blog. This is the original tweet he posted that introduced the topic. On

⁶ As of October 2, 2013, Hu has 4,071,442 followers on Weibo; however, it may not be the exact count of Hu's followers on December 26th 2011 when he engaged in the debate.

December 27, 2011 8:35 p.m., Hu re-tweeted the post with comment “I disagree.” On 8:41p.m. that day, Li responded with a retweet saying it is understandable for Hu to disagree with him since he speaks for the Party, this first responding retweet itself was then re-tweeted 177 times. On 9:12 p.m., Hu replied saying *Global Times* speaks for all Chinese. On 9:21 p.m. , Li re-tweeted Hu’s opposition again further arguing the *Global Times* can’t be seen as speaking for the normal Chinese, since it is highly influenced by the Party’s propaganda policy. This post was re-tweeted 262 times. Hu then left the conversation.

This discussion was the subject of the present research. Though Li was responsible for most of the content, it is still worthy of investigation considering the communication patterns that emerged in the debate.

CHAPTER THREE: RATIONALE AND HYPOTHESIS

New technology has made it possible for researchers to track and record how discussion happened online, providing new methods of studying opinion leadership in addition to relying on self-reported data from the respondents. For instance, computerized data-mining programs have been used in several studies for data collection, e.g. Himelboim, Gleave, & Smith (2009), Welser, Gleave, & Fisher (2007), Cha, Haddadi, Benevenuto, and Gummadi (2010). These methods have been used primarily to study retweets, in terms of how many retweets are received and what is said in retweets, in order to understand communication patterns (Li, 2012; Wang & Xie, 2012; Sun & Li, 2012; Cha et al., 2010).

As identified by previous studies, there are many new questions yet to be answered about opinion leaders on the Internet. Is the influence of opinion leaders undermined by the lack of direct personal connection in real life? In other words, if the leaders are not part of one's network of family and friends, are they still influential? If so, an agreement should be reached between leaders and their followers, for instance, Li's followers should approve his argument. Thus:

Hypothesis 1: Followers of opinion leaders will tend to express more approval attitudes in retweet than disapproval attitudes when only considering retweets with comments showing approval and disapproval.

According to Sun & Li (2012) self-identification is one of the motives for people to re-tweet a post, especially when they agree with the message. This reasoning should still stand for further retweets as well. Hence:

Hypothesis 2: Those who express approval when re-tweeting an opinion leader's tweets will themselves be re-tweeted more frequently than those who express disapproval.

As argued by many qualitative scholars, interpersonal network is how messages being transmitted through among the micro blog sphere (Wang, 2011; Huang, 2010). Interpersonal connections matter. Thus, the connections evidenced by following Li should have a positive impact on the extent to which further retweeting occurs. Conversely, those who are not followers of Li, and therefore do not have the same type of explicit interepersonal connection, will be retweeted less. Therefore:

Hypothesis 3: Retweets from the followers of opinion leaders will be re-tweeted more than the ones posted by non-followers.

Much attention has been paid to famous people who are active among micro blog sphere (Yu, L., 2011; Sai, 2011; Liu, 2011). Weibo's verified users have become the primary example of opinion leaders on Weibo's in opinion leadership research (Liu et al., 2013). Therefore:

Hypothesis 4a: The tweets posted by verified users will be re-tweeted more than the ones posted by non-verified account users.

As the classic “two step flow” theory argued, opinion leaders would have higher media consumption than their followers. H. Y. Song (2003) believed media and media professionals should be treated as opinion leaders since they reflect, influence, and organize public opinion. This lead to the next hypothesis:

Hypothesis 4b: The tweets posted by verified users who work for news organization will be re-tweeted more than the ones posted by verified users with other occupations.

In order to separate journalists, who operated under journalistic values, and commentators, an independent category of possible editorial opinion leader was created.

Hypothesis 4c: The tweets posted by verified users who can be considered as editorial opinion leaders will be re-tweeted more than verified account users with other classifications.

The discussion started by Li provided valuable information and possible evidence to support the hypotheses above. First, there is some evidence that Li is considered one of the most influential users of Weibo.com¹. He started the discussion and received most of the reweets. It is reasonable to consider him a central opinion leader for the purposes of this study. Meanwhile, not only did verified media professionals participate in the debate, but also writers, lawyers, and columnists. Importantly from a methodological perspective, the tweets and retweets regarding the discussion are publicly displayed on Li’s profile

¹ Li belongs to Weibo’s board of fame, which is ranking system of the verified account users. Li was in the top 100 verified users from the past 6 months except May.

page, making them possible for researcher to retrieve. For these reasons, this particular case of a discussion of democracy in China that occurred on the micro blog Weibo serves as a useful case for opinion leadership research.

CHAPTER FOUR: METHODS

A content analysis was conducted to test the hypotheses. Data were collected through a computer program called a *Web crawler*, which performs data mining; that gathers specific information directly from related Web pages. In this case, by using web crawler software, the researcher systematically retrieved the tweets and tracked the re-tweeting of certain posts of elite users. The retweets were then coded.

Data

Data were collected on November 26th 2012. All 20,278 retweets of the original post by Li available at that time were collected with each constituting a single case in the created data set. Each case contains the content of the retweet, the exact time it was re-tweeted, how many times it was subsequently re-tweeted, the URL of the retweeter and the user name of the retweeter.

Sample

Two datasets were drawn from the initial 20,278 cases data pool. For hypothesis 1, the object is to study the attitude agreement between the opinion leader and his follower. Accordingly, 599 out of 20,278 cases were randomly sampled into a new data set; this data set is henceforth referred to as the *random sampled dataset*.

For hypothesis 2, 3, and 4, the key question is to study retweets by different types of leaders and followers and their implications. Therefore, all cases included in the original data set where the retweet had itself been retweeted at least once were selected to create another new dataset, which was comprised of 627 cases. This data set is referred to as the *retweet dataset* and is used to research the process of information transmission among Weibo users, especially through retweeting.

Variables

(1) Follower:

Practically, *following* another user means the follower will automatically receive news feeds from the user they choose to follow. The website displays the following information of each user, including who the user follows as well as who follows the user. This information is publicly displayed on the profile page of each user.

Two coders coded this variable. As the nature of following is objective (for example: one can only be follower of Li, or not a follower of Li, and it is explicitly indicated on the page of Li and the other user), a two-coder system would not cause bias in this circumstance. Whether someone is a follower of Li is a nominal variable. In the random sampled dataset, 18.20 % of the total 599 cases were posted by people who were not following Li, while 81.80% cases were posted by people who were following Li ($N_{rs-nonfollow-li} = 109$, $N_{rs-follow-li} = 490$). In the retweet dataset, 20.26% of the 627 cases were posted by people who were not following Li, while 79.74% of the cases were posted by people who were following Li ($N_{rdnonfollow-li} = 127$, $N_{rdfollow-li} = 500$)¹.

(2) Attitude:

Approval: The retweeter gave a positive evaluation towards Li's post or Li himself. Also, the criticism towards Hu regarding his newspaper was coded as approval of Li, since the lack of journalistic independence is one of Li's criticisms towards Hu's newspaper. This is a nominal variable.

¹ Considering Li would agree with his own ideas, the study analysis here treated Li as his own follower. If treating Li as a non-follower of himself, then in the retweet dataset, 22.17% of the 627 cases were posted by people who were not following Li, while 77.83% of the cases were posted by people who were following Li ($N_{rdnonfollow-li} = 139$, $N_{rdfollow-li} = 488$).

For example, retweets with contents such as “Support Li,” “Good,” “‘*Global Times*’ can’t speak for the most people,” “Hu is the mouth piece of The Communist Party,” “We are looking for more people to wake up and ask for the rights we deserve,” are coded approval of Li’s idea.

Disapproval: Some retweets indicated a negative evaluation Li’s post or Li himself. For example: “Get out of China if you have so much to complain about,” “All Li can do is talk,” “The logic of the article is questionable; in his sense, what would he call Iraq, a victor or a victim of democracy?” These are considered as disapproval of Li’s idea.

Neutral: The retweeter does not give a specific attitude towards Li. For example: “I don’t know about this one; both sides seems to be both right” “Truth rises from discussions with different voice”; these are considered to be neutral.

Simple retweets: Simple retweets are not technically an attitude but rather a form of lack of attitude similar to neutral attitudes. These are generated one Weibo when the user clicks the retweet button, but has not written any additional comments. People usually take those words off in order to say as much as possible within the 140 characters limits. In the “Random sampled dataset,” most of the comments are simple retweets. (see Table 1).

Table 1

The overall attitude towards Li in the “Random sampled dataset”

| | Frequency | Percentage |
|----------------|-----------|------------|
| Approval | 201 | 33.6 |
| Disapproval | 34 | 5.7 |
| Neutral | 43 | 7.2 |
| Simple Retweet | 302 | 50.4 |
| Missing | 19 | 3.2 |
| Total | 599 | 100 |

The “Retweet dataset,” is used to study the behavior of retweeting, so attitudes were recoded into approval, disapproval, no opinion provided, neutral, and non-related issues (which means the content of the retweets is not related to the discussion, for example non-communicative codes generated through data collection process using the web crawler). In this case, approval and disapproval are coded using the same standards discussed above; “Simple retweet” was recoded as no opinion provided in this data set, since it did not contain any substantial content made by the person who re-tweeted Li’s original post (see Table 2).

Table 2

The overall attitude towards Li in “Retweet dataset”

| | Frequency | Percentage |
|-------------|-----------|------------|
| Disapproval | 53 | 8.4 |
| Approval | 257 | 40.9 |
| No opinion | 239 | 38.1 |
| Non-relate | 36 | 5.7 |
| Neutral | 42 | 6.7 |
| Missing | 1 | 0.2 |
| Total | 628 | 100 |

The following variables (4-7) are discussed only in the “Retweet dataset,” which contains 627 cases with each case be re-tweeted at least once.

(3) Number of Retweets

A count of retweets is a commonly used variable to indicate influence on Weibo e.g. Sun & Li (012), Wang & Xie (2012), even the website itself- weibo.com would use retweets as a way of measuring influence.

The *web crawler* software collected data on how many times one retweet was subsequently re-tweeted by others. Among the 627 cases, the post that received the maximum number of retweets, 688, belongs to Li himself. At the other end of the retweeting scale, 481 users posted retweets that were then re-tweeted by others only

once, all the cases are re-tweeted at the average level of 8.77 times ($SD_{\text{overallretweets}} = 49.13$)². This variable is quantitative.

(4) Verified account status

As much of the Chinese Weibo literature referring people whose identity has been verified as VIP, but it is essentially the same mechanism of Verified account status. Verified account status is granted by the Weibo website with a yellow symbol that is displayed on the user's profile page. All tweets analyzed in this study are from personal accounts, thus all tweets from verified accounts were from personal verified accounts. Tweets from verified organization accounts were not analyzed as part of this research. More than 24.24% of the 627 cases were posted by verified account users, 73.52% were posted by non-verified account users, and 1.30% was posted by organization account ($N_v = 152$, $N_{n-v} = 461$, $N_{\text{business}} = 8$); this variable is nominal.

(5) Verified journalist account

This variable was created in order to single out the journalists who have passed identity authentication. Once verified account status is granted, the user's employment situation is shown on the profile page. Journalists, reporters, and editors

² Among the 627 retweet cases, 12 of them belong to Li. These 12 posts are the follow-up comments made by Li himself to further explaining his opinion on the take. Li's 12 follow-up retweets was later being re-tweeted 3,874 times, making up 19.10% of the 20,278 cases which are the retweets of the original post.

are coded as verified journalist account users. Only 4.15 % of the total 627 cases were posted by verified journalist users while 95.7% cases were posted by non-journalist users ($N_{jour} = 26$, $N_{non-j} = 601$). This variable is nominal.

(6) Possible-editorial-opinion leader

This variable is created for users who have been granted verified account status and also may be considered as editorial opinion leader for the purposes of the Li tweet event. Users who were coded as possible editorial opinion leaders are newspaper columnists, commentators, lawyers, local court judges, and writers with works regarding democratic government, election, freedom of speech, law and social order, and other democratic spirit³.

In the retweet dataset, 7.34 % of the total 627 cases were posted by possible-editorial-opinion leaders, and the remaining 92.67% cases were posted by non-possible-editorial users ($N_{editorial} = 46$, $N_{non-editorial} = 581$).

³ In order to classify journalists as opinion leader and possible editorial opinion leader, the researched checked every verified account users' profile and made the distinction based on the displaying information (e.g. occupation and publication).

Analysis

For hypothesis 1, since both the independent variable and the dependent variable are nominal, a chi-square test is employed.

For hypothesis 2, 3, 4a, 4b, 4c, the independent variables are nominal, and the dependent variables are quantitative, T-tests were conducted.

Here is the list of all the analysis:

Table 3

Analysis for all hypotheses

| | Independent variable | Dependent Variable | Analysis |
|-----|--|------------------------------------|------------|
| H1 | Li's follower/or not (Nominal) | Approval/Disapproval (Nominal) | Chi-square |
| H2 | Approve of Li's post/Disapprove of Li's post (Nominal) | Times of re-tweeted (Quantitative) | T-test |
| H3 | Li's follower/or not (Nominal) | Times of re-tweeted (Quantitative) | T-test |
| H4a | Retweeter is verified account user/ non-verified (Nominal) | Times of re-tweeted (Quantitative) | T-test |

| | | | |
|-----|--|------------------------------------|--------|
| H4b | Retweeter is verified journalist users /non-verified-journalist users (Nominal) | Times of re-tweeted (Quantitative) | T-test |
| H4c | Retweeter is possible editorial opinion leader /non-editorial opinion leader (Nominal) | Times of re-tweeted (Quantitative) | T-test |

Note. The non-verified-journalist users are coded in the sense that either the user is not a journalist or not a verified account user. The variable of non-editorial opinion leader is considered if the user either does not have a verified account or has not worked in areas relating to politics and civil society.

CHAPTER FIVE: RESULTS

The overall results support the majority of the hypothesis. that the results suggest that (1) opinion leaders are influential in the opinion formation process, even without direct personal connection with followers, (2) an opinion leader's influence can be exerted through followers who belong to different networks, and (3) there are different levels of opinion leadership.

(1) Opinion leaders form attitudes.

The first analysis is addressing the process of attitude forming. Among the 599 random selected cases, 235 cases gave a clear attitude towards Li's piece (i.e. they either give positive or negative evaluation towards Li's piece or Li himself). Those 235 cases were entered into the chi-square analysis.

There tends to be agreement between an opinion leader and his followers reacting to the topic of China's democratic needs. In total, 80.43% of the 235 cases were posted Li's follower ($N_{follow-li} = 189$, $N_{non-follow-li} = 46$). Majority, 88.89%, of the cases posted by Li's followers approved his argument; only 11.11% disapproved him. Among 46 cases, which were posted by people did not follow Li, 71.74% of those approved him ($N_{followli-approve} = 168$, $N_{followli-disapprove} = 21$, $N_{non-followli-approve} = 33$, $N_{non-follow-disapprove} = 13$). It is interesting to see the overwhelmingly approval showed people who did not follow Li. The non-followers of Li's showed more approval than disapproval when re-tweeting his

post, 14% were posted by people who were not following Li but approved his idea and 5.5% were posted by people neither his followers nor agreeing with him ($N_{approval-nonfollowing} = 33, N_{disapprove-nonfollowing} = 13, X^2 = 8.793, p = 0.008, N_{total-f-n-attitude} = 235$).

Overall, only 14% of the cases posted by people who were not Li's followers showed approval to his idea. This was much lower than the 71.5% of those who approves Li's idea and are his follower ($N_{non-following-approval} = 33, N_{following-approval} = 168$). The chi-square value X^2 is 8.793 ($df=1, p=0.008, N_{total-f-n-attitude} = 235$).

Hypothesis two was tested using the retweet dataset that contains 627 cases. The results indicated retweets showing approval towards Li would themselves be re-tweeted more frequently. The disapproval posts were re-tweeted 2.81 times on average while the approval posts were re-tweeted 18.12 times on average. The results are statistically significant ($p = 0.002, SD_{disapp} = 5.698, SD_{app} = 75.534, t = -3.206, df = 269.3$). However, it is important to notice that only 310 out of 627 cases gave clear evaluation toward Li; also Li re-tweeted his own post 12 times and generated 3874 out of 5497 total retweets in the retweet dataset, both sample size and the overwhelming approval attitude made by author himself, could really drive up the average re-tweet number of the approvals.

From the results of analysis one and analysis two we can conclude that opinion leaders are still effective in forming attitudes during a discussion. The effectiveness does not just lie in the agreement between him/her and his/her followers, but more importantly, this agreement is more likely to be accepted and acknowledged later on.

(2) The overlaps of networks

The third analysis shows that Li's followers will gain more retweets than those who do not follow Li. The analysis used retweet dataset with 627 cases. The posts from users who did not follow Li received an average of 1.60 times of retweet; Li's follower received an average of 10.59 times of retweet ($SD_{Li's-non-follower} = 2.28$, $SD_{Li's-follower} = 54.865$, $t = -3.65$, $df = 505.731$, $p = 0.000$). In this analysis, Li is considered as a follower of himself for the reason that the content of the retweet is the subject of this study; Li's follow-up comments would be consistent with his original post.

(3) The existence of levels of opinion leaders.

As for the results of hypothesis 4a, 4b, and 4c there is evidence suggesting that the verified account users are more likely to be heard as well as recognized. Within 627 cases that were re-tweeted, 152 of them were posted by people granted with verified account status. The average retweets these verified account users generated were almost 24 times as the ones generated by non-verified users ($M_{vip} = 31.52$, $SD_{vip} = 93.34$, $M_{non-vip} = 1.33$, $SD_{non-vip} = 2.24$, $t = 3.86$, $df = 151.054$, $p = 0.000$).

There was not a statistically significant relationship between being a news media professional and receiving more retweets. The average number of retweets gained by journalists is 7.5, while the average number of retweets gained by non-journalist users is 8.82 ($N_{journalists} = 26$, $N_{non-journalists} = 601$, $SD_{journalists} = 14.514$, $SD_{non-journalists} = 50.093$, $t = .134$, $p = .893$).

However, that is not the case for possible editorial opinion leaders. Forty-six cases were reclassified as posted by “verified possible editorial opinion leader.” Through comparing them with the rest 581 non-editorial post it is clear that possible editorial opinion leaders are much more influential. Non-editorial users’ post received an average of 2.36 retweets while the possible editorial opinion leaders received an average of 89.74 retweets ($SD_{non-editorial} = 5.67$, $SD_{editorialvip} = 161.02$, $t = -3.68$, $p = 0.001$). Again, Li is considered to be a possible editorial opinion leader here since he is a commentator and writer, not a journalist nor reporter.

Verified account users that were neither media professionals nor possible editorial opinion leaders were re-classified as “other verified users” for post hoc testing. There was no statistically significant relationship between their status as other verified users and the amount of retweets they received ($M_{others} = 5.37$, $M_{non-others} = 9.28$, $N_{others} = 82$, $N_{non-others} = 545$, $SD_{others} = 9.387$, $SD_{non-others} = 35.557$, $t = .672$, $p = .502$).

The evidence implies if the identities of users are verified by the website, they may have a stronger impact on the numbers of retweets they receive. More importantly, this overall strong relationship may be driven by the large number of retweets received by verified users who can be considered as editorial opinion leaders, especially Li himself ¹.

¹ For hypothesis 4a, 4b, 4c, separate analysis that excluded Li and his follow-up retweets were also run. For H4a, within 615 cases that were re-tweeted, 140 of them were posted by people granted with verified account status, other 459 cases were not. The average retweets these verified account users generated were almost five times as the ones generated by non-verified users ($M_{vip} = 6.55$, $SD_{vip} = 11.187$, $M_{non-vip} = 1.33$, $SD_{non-vip} = 2.235$, $t = 5.487$, $df = 42.399$, $p = 0.000$).

For H4b, there is still no statistically significant relationship for being a journalist verified account users and gaining more retweets.

For H4c, 34 out of 615 analyzed cases were posted by people thought to be possible editorial opinion leaders, other 581 cases were not. Non-editorial users' post received an average of 2.36 retweets while the possible editorial opinion leaders received an average of 7.47 retweets ($SD_{non-editorial} = 5.67$, $SD_{editorialvip} = 12.139$, $t = -2.441$, $p = 0.02$).

CHAPTER SIX: DISCUSSION

There are a number of insight can be draw from the analyses above.

(1) First of all, the lack of direct personal interaction does not seem to limit opinion leaders' ability to affect their followers. Li's voice was heard and was welcomed by the majority audience; an agreement was reached by the leader and his followers.

However, it is debatable whether it is the leadership that caused the agreement or people's political predisposition caused the leadership. Shah and Scheufele (2006) suggested that opinion leadership is more a consequence rather than a cause of civic participation. In this case, users seem to have already noticed the importance and urgency of China's political reform so that when similar opinion presented itself, they were not reluctant to show support. During the debate between Li and Hu over the topic of freedom speech, much of the retweeter supports Li's idea- Chinese do not have the true freedom to political speech, and Hu's "*Global Times*" is not really a newspaper but merely a mouthpiece of The Communist Part. For example, user @Tujiayefu said in his retweets "'*Global Times*' is a newspaper belongs to The Party, not the Chinese People." In several consecutive posts, Li states the reason behind the constant conflicts between government and citizen, such as government corruption, is lack of free election. User @Wangxiaoshan supported the argument saying, "having an election is better than no election;" user @Yanghengjun retweeted Li's post with the comments "the party

member would act totally different today if they were elected.” These arguments are not new to Chinese people; and the Chinese government had been criticized on suppressing civil liberty as well, long before Li pointed out.

This is not to say that Li is not influential. In fact, those approval retweets magnified the idea of the opinion leader- Li. On one hand, Li’s idea went beyond his followers reaching a broader audience crowd, through re-tweeting. On the other hand, receivers got both the original message but also the affirmation from people they are following. Also, it is the approval packages that are re-tweeted more frequently, meaning people were more willing to accept Li and those who agreed with him than the contrary.

Also, Li picked the topic, called attention to the existing social conflict, and even elevated the discussion by directly oppose to another famous writer’s (Han’s) argument. In this sense, opinion leaders might be more effective in setting the agenda than control the rhetoric.

It is unclear that if opinion leader has CHANGED people’s attitude during the debate, but it is safe to say that, at least, opinion leader attracts those with similar minds and give them a chance to discuss the matter.

(2) Secondly, it is worthy to address the implication of re-tweet.

Wang (2011) argued that sharing similar values and a similar social identity are the most important reasons as to why a network would be formed. From this standpoint, networks formed by Li and his followers demonstrate the obvious shared valued – the

interest in public affairs. His followers, when forming their own network, would later bring the same interest to the new networks. Followers, in this case, intended or not, are expanding leader's network. As testified by the results above, followers are more influential than the non-followers.

On the other hand, it is easier to retweet contents one agrees especially when such opinion is confirmed by others. Through agreeing with the opinion leader, retweeters can establish their authority over certain issues since a such argument/opinion has been endorsed by an opinion leader, in this case, an opinion leader both online and offline. It is consistent with several studies' conclusion on the motives for people to re-tweet certain message. For instance, Sun & Li (2012) believed users would use medium to reinforce their value and establish personal identity; re-tweeting provides the access for users to express themselves and identify themselves. Sai (2011) studies 170 people's behavior on social media using web based survey. Fully 77.06% of the respondents stated they are more likely to be influence by message that are close to their personal style, and 84.12% of them are more likely to share messages that are close to their personal style. L. Yu (2011) also argued that in the age of online communication, acceptance and agreement, among certain thoughts, has replaced physical relations, composing different networks together, which lead to a larger heterogeneous social network.

It is interesting to see posts that were agreed with the opinion leader got re-tweeted more often than those that disagreed. Double assurance seemed to provoke more retweets.

(3) Thirdly, there is a possible “third-step” in the communication process.

In the micro blog sphere, there is a third step of information flow: from normal audiences to other normal audience members, such as friends and families (See Figure 1). Retweeters, or intermediates- as Wu et al. (2011) suggested, are responsible for the third step, in which they receive the message from an opinion leader and then pass it on to others, transmitting the content to an even broader viewer base and engaging more people in the discussion.

Consider the third step through the point of view of interpersonal communication. Wang (2011) argued that the micro blog users interact with others through the interpersonal networks they built. For a stable interpersonal network to endure there must be a shared interest or concept among the members of the network; the network itself is a symbol of that shared value. In this case the network composed by Li and his followers shares a similar political view or at least shares the same interest in political and social issues. Li and his followers engaged in the second step of communication within their network, henceforth referred to as the primary network. Each of Li’s followers also individually belongs to different networks; those networks will be referred to collectively as the secondary network.

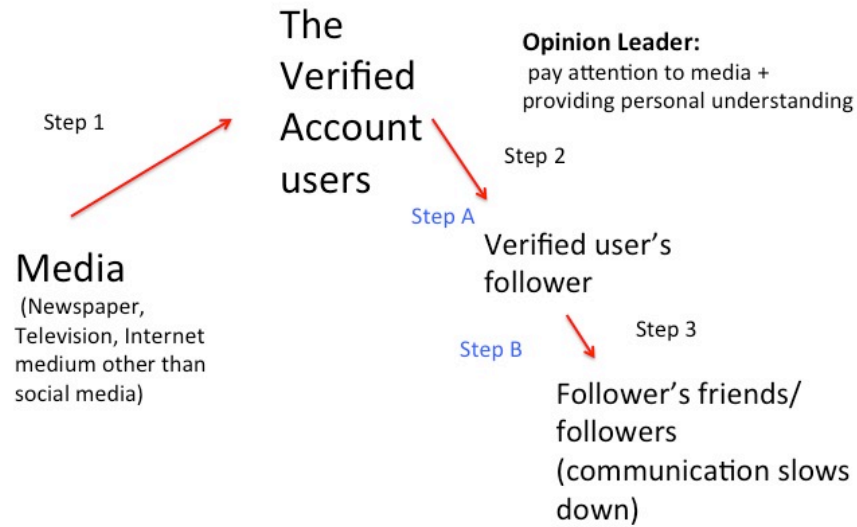


Figure 1. The third step of in micro blog communication

Essentially, the secondary network mirrors the primary network. For this reason, followers' tweets are more likely to be retweeted than the tweets of other intermediates: just as the tweet of the opinion leader (Li) is retweeted by followers for its shared value, the tweets of the followers are retweeted by their peers in the secondary network for their shared value.

An alternative argument for this process is to consider the verified account users as an independent media, then their followers becomes opinion leader, and the communication circle follows (see Figure 1. Step A to step B).

(4) Lastly, the definition of opinion leader may need revision.

Opinion leaders in Katz's idea are those who were asked for opinions and advice during a decision-making process. One of the important personal traits of opinion leaders is that they usually consume more media content, as with professionals working in the news industry. Incorporating this idea, Wu et al. (2011) argued that the intermediates, in this case the retweeters, should be considered opinion leaders. However, I believe the most defining trait of an opinion leader is not the prolific consumption of media but having authority or expertise in the field of the discussed topic. i.e., opinion leaders are specialists.

Before discussing the new personal trait of an opinion leader, it is crucial to understand the interaction process in the micro blog sphere. Micro blog users choose to receive information from certain source by voluntarily following other users. If the information they receive draws enough attention or interest, it may be re-transmitted through re-tweeting, also voluntarily. In other words in the micro blog sphere, people actively seek an information source, digest, and then filter the message. Therefore, the users who have more followers and garnered more retweets fit the definition of opinion leader, that of the advice giver.

With hundreds of thousands of sources available, credibility is the first concern. The status of a website-verified account, given to users who pass the identity authentication test, addresses this issue. After the authentication information such as

name, occupation, employment history, or even personal experiences are endorsed by the website. This process changed implication in two ways: first, the verified account users are no longer anonymous, requiring them to take responsibility for their words; second, since the occupation or employment history is displayed on their profile, it confirms that the verified account users have expertise (or at least experience) in certain fields. Verified users account status constructs creditability as well as authority, which lead to opinion leadership.

As the results showed, people are more willing to retweet information coming from verified users, especially from those with expertise in the discussion topic. “Possible editorial opinion leaders” represent the combination of credible sources and authoritative experts. When putting the results into the context of micro blog interaction, “possible editorial opinion leaders” gained the most retweets; it suggests that people paid more attention to strongly qualified experts than to those who merely seemed informed. Thus, the essential personal trait of the opinion leader should be altered from using more media to having expertise in the discussion topic. This change would largely expand the notion of opinion leader but re-emphasize the concept of personal influence, which should be the most critical factor of opinion leadership. It is still inconclusive how media usage affects opinion leadership, as there is no statistically significant relationship that suggests being a journalist makes for a more influential opinion leader.

CHAPTER SEVEN: Limitation and Suggestion for Future Study

Due to the limited time and the large volume of data, this research has several restrictions.

First, the study did not prove a causal relationship between leadership and opinion agreement. A more comprehensive conclusion may be possible if comparing opinion formation within Li's group against the Hu's group. Hu is a verified account user and has large audiences just like Li. He is also a media professional who provided counter opinion against Li during the debate, for which qualifies as an opinion leader. By studying the dynamic between Li and his follower during the debate, it may give us more information on whether leadership caused the agreement or the other way around.

Second, the study used the number of retweets one received as the measurement for influence. Even the measurement is higher operable but it is slightly biased. For instance, 40,000 people saw a message, but only 2000 of them retweeted it; the ratio of retweet against viewing is 5%. Does this mean only 5% of the people were influenced? The future research should consider re-define and re-measure "influence" to justify the effectiveness of opinion leadership among social media.

Attention should be given to the questions regarding “simple retweet” as an attitude. What is the nature of “simple retweet”? Is it “I don’t know what to say”, “it implies I agree” or “I don’t want to waste my time commenting on this nonsense”? An audience study should have answers for this.

It is also important study the networks built by leaders and followers, especially the secondary network (network between intermediates and those who follows them). There are still much of the unknown within the “third step”. What happens when followers communicate with their friends; would it increase leader’s influence or the opposite direction.

At last, to the extent that the nature of this political debate differs from other conversation or dialogues, results of opinion leadership may differ. In additional, retweeting was only studied in terms of tweets that were re-tweeted. Future research should examine the differences between tweets that are re-tweeted and those that are not.

Social media is a relatively new topic in the field of communication studies. It reconciles mass communication and interpersonal communication, which provides new approaches to the study of public opinion. I hope this study helps shed some light into social media studies, for which much is still unknown.

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Letter of Permission for use of Data

13-10-31

数据使用认可书 - Chan Chen

数据使用认可书

柳晨龙 <lclsg123@163.com>

Thu 10/31/2013 12:15 AM

To: Chan Chen <cc3q@mtmail.mtsu.edu>;

Letter of Permission for Use of Data</??xml:namespace>

MEMORANDUM

DATE: <October 30, 2013>
 TO: < Chan Chen >
 FROM: < Chenglong Liu, lclsg123@163.com>

SIGNATURE: _____ LiuChenlong

RE: PERMISSION FOR USE OF DATA

I gives the permission for Chan Chen to analyze the data collected by me on November 26th, 2012 - "Li Cheng Peng forward tweet data," expressly for the Chan's thesis, "Opinion Leaders: The Driving Force of Political Discussion in Social Media." The dataset is collected through the web crawler computer code produced by myself. The dataset contains 20,278 cases: each case includes information of the content of the tweet, the exact time the tweet was posted, how many times the tweet being forwarded, the user's name and URL of the owner of the tweet. Chan is given the permission to fully use this dataset for the purpose of academic research.