What Trends in Chinese Social Media

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ABSTRACT

There has been a tremendous rise in the growth of online social networks all over the world in recent times. While some networks like Twitter and Facebook have been well documented, the popular Chinese microblogging social network Sina Weibo has not been studied. In this work, we examine the key topics that trend on Sina Weibo and contrast them with our observations on Twitter. We find 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 retweets 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.

Categories and Subject Descriptors

H.4 [**Information Systems Applications**]: Miscellaneous; I.7.1 [**Document and Text Processing**]: Document and Text Editing—*languages*

General Terms

Measurement

Keywords

social network; web structure analysis, China; social computing

1. INTRODUCTION

Social networks have made tremendous impact on online computing, by providing users opportunities to connect with others and generate enormous content on a daily basis. The enormous user participation in these social networks is reflected in the incessant number of discussions, images, videos, news and conversations that are constantly posted in social sites. Popular networks such as Facebook and Twitter are well-known globally and contain several hundreds of millions of users all over the world. On the other hand, Sina Weibo is a popular microblogging network in China which contains millions of users, almost all of whom are located in China and post in the Chinese language.

In China, online social networks have become a major platform for the youth to gather information and to make friends with like-minded individuals [16]. In this regard, a major point of interest is to examine the information that is propagated and the key trend-setters for this medium. There has been a lot of prior research done on the adaptation of influence and evolution of trends in Western online social networks [2] [17] [20]. But, in contrast, Chinese social media has not been well-studied.

In this paper, we analyze the evolution of Sina Weibo and provide the first known in-depth study of trending topics on a Chinese online microblogging social network. Our goal is to discover important factors that determine popularity and influence in the context of Chinese social media. To compare, we contrast them with corresponding ones from Western social media (Twitter). We put emphasis on examining how trends are formed and what kind of sources dominate the topics of discussion in Chinese social media.

First, we identify and collect the topics that are popular on Sina Weibo over time. For each of these trending topics, we analyze the characteristics of the users and the corresponding tweets that are responsible for creating trends. We believe that this will give us a strong insight into the processes that govern social influence and adoption in China. To perform a comparison, we use similar trending topic data from Twitter.

Our key findings are as follows. We observe that there are vast differences between the content that is shared on Sina Weibo when compared to Twitter. In China, people tend to use Sina Weibo to share jokes, images and videos and a significantly large percentage of posts are retweets. The trends that are formed are almost entirely due to the repeated retweets of such media content. This is contrary to what we observe on Twitter, where the trending topics have more to do with current events and the effect of retweets is not as large. We also observe that there are more unverified accounts among the top 100 trend-setters on Sina Weibo than on Twitter and most of the unverified accounts feature discussion forums for user-contributed jokes, images and videos.

2. BACKGROUND AND RELATED WORK

2.1 Degree Distributions

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There have been many experiments conducted for studying the structure of online social networks. In one comprehensive study, Mislove et al. [23] have presented a large-scale measurement study of online social networks such as Orkut, YouTube, and Flickr. Their results show that online social networks follow the power-law in the in-degree and out-degree distributions of user nodes. In other work, Kumar et al. [18] examine the linking structure of Flickr and Yahoo!360 and report similar findings.

2.2 Social Influence Studies

For many years the structure of various offline social networks has been studied by sociologists (see [15] [23] [6] for surveys). Researchers have also analyzed the structure of various Chinese offline social networks [4] [25] [12] [5] [7]. In social network analysis, *social influence* refers to the concept of people modifying their behavior to bring them closer to the behavior of their friends.

Social influence has been studied in a vast array of social networks involving various foci such as interests and personal habits [22] [13] [26]. Xu et al. [30] have looked at the adaptation of aggressive behaviors in a social network of kindergarden children in China. As a method of controlling aggression, teachers in China tend to put aggressive children in a peer group with non-aggressive children. Xu et al. [30] have found that over time friendships can be formed between aggressive children and non-agressive children. For the aggressive children who are group members, intra-group friendships moderated their aggressive behavior.

Agarwal et al. [1] have examined the problem of identifying influential bloggers in the blogosphere. They discovered that the most influential bloggers were not necessarily the most active. Backstrom et al. [3] have examined the characteristics of *membership closure* in LiveJournal. and Crandall et al. [11], the adaptation of influences between editors of Wikipedia articles. On Twitter, Cha et al. [8] have performed a comparison of three different measures of influence - indegree, retweets and user mentions. Based on this, they hypothesized that the number of followers may not a good measure of influence. This was corroborated by Romero and others [24] who presented a novel influence measure that takes into account the passivity of the audience in the social network. They measured retweets on Twitter and found that passivity was a major factor when it came to forwarding. They also demonstrated with empirical evidence that the number of followers is a poor measure of influence.

There are only a few studies of social influence in Chinese online social networks. Jin [16] has studied the Chinese online Bulletin Board Systems (BBS), and provided observations on the structure and interface of Chinese BBS and the behavioral patterns of its users. Xin [29] has conducted a survey on BBS's influence on the University students in China and their behavior on Chinese BBS. Yu et al. [32] has looked at the adaptation of interests such as books, movies, music, events and discussion groups on Douban, an online social network frequently used by the youth in China. Douban provides users with review and recommendation services for movies, books, music and events. It is also the largest online media database and one of the largest online communities in China.

2.3 Trends on Twitter

There are various studies on trends on Twitter [14] [19] [21] [28]. Recently, Asur and others [2] have examined the growth and persistence of trending topics on Twitter. They discovered that traditional media sources are important in causing trends on twitter. Many of the top retweeted articles that formed trends on Twitter were found to arise from news sources such as the New York Times. In this work, we evaluate how the trending topics in China relate to the news media.

2.4 The Internet in China

The development of the Internet industry in China over the past decade has been impressive. According to a survey from the China Internet Network Information Center (CNNIC), by July 2008, the number of Internet users in China has reached 253 million, surpassing the U.S. as the world's largest Internet market [9]. Furthermore, the number of Internet users in China as of 2010 was reported to be 420 million.

Despite this, the fractional Internet penetration rate in China is still low. The 2010 survey by CNNIC on the Internet development in China [10] reports that the Internet penetration rate in the rural areas of China is on average 5.1%. In contrast, the Internet penetration rate in the urban cities of China is on average 21.6%. In metropolitan cities such as Beijing and Shanghai, the Internet penetration rate has reached over 45%, with Beijing being 46.4% and Shanghai being 45.8% [10].

According to the survey by CNNIC in 2010 [9], China's cyberspace is dominated by urban students between the age of 18–30 (see Figure 1 and Figure 2, taken from [9]).

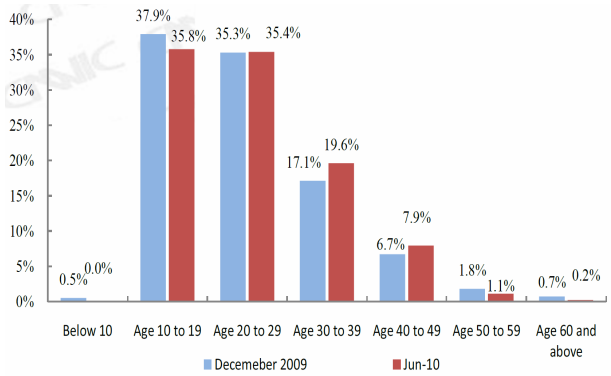

Figure 1: Age Distribution of Internet Users in China

The Government plays an important role in fostering the advance of the Internet industry in China. Tai [31] points out the four major stages of Internet development in China, "with each period reflecting a substantial change not only in technological progress and application, but also in the Government's approach to and apparent perception of the Internet."

1. The first phase was between 1986–1992, when Internet applications were limited to the use of emails among a handful of computer research labs in China.

2. The second phase was between 1992–1995, the Chinese Government proposed several large scale network projects and built a national information network infrastructure.

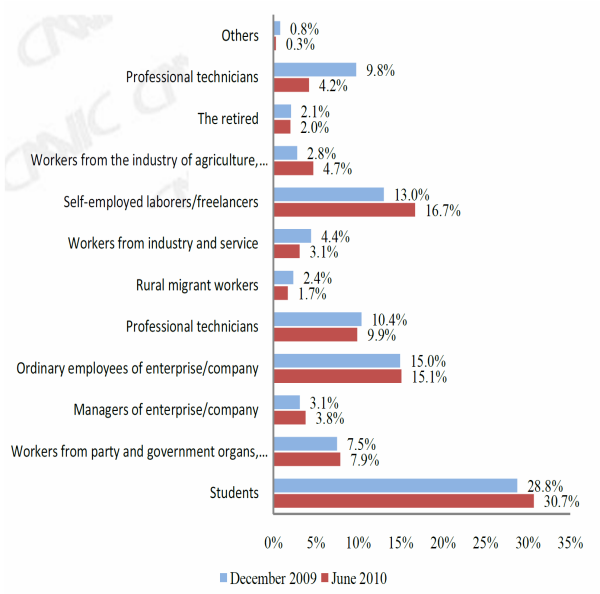

Figure 2: The Occupation Distribution of Internet Users in China

3. The third phase was between 1995–1997. The Chinese Government stepped up its effort in building the information network infrastructure, hoping that the IT industry would yield significant benefits to the nation's economy. Meanwhile, the Government started to implement a variety of technological and policy control mechanisms to regulate the safe flow of the information on the Internet.

4. The fourth phase started from 1998 and continues to the present, during which time the Internet has become a powerful medium in the Chinese society.

According to *The Internet in China* [1] released by the Information Office of the State Council of China:

> The Chinese government attaches great importance to protecting the safe flow of Internet information, actively guides people to manage websites in accordance with the law and use the Internet in a wholesome and correct way.

2.5 Chinese Online Social Networks

Online social networks are a major part of the Chinese Internet culture [16]. Netizens[2] in China organize themselves using forums, discussion groups, blogs, and social networking platforms to engage in activities such as exchanging viewpoints and sharing information [16]. According to *The Internet in China*:

> Vigorous online ideas exchange is a major characteristic of China's Internet development, and the huge quantity of BBS posts and blog articles is far beyond that of any other country. China's websites attach great importance to providing netizens with opinion expression services, with over 80% of them providing electronic bulletin service. In China, there are over a million BBSs and some 220 million bloggers. According to a sample survey, each day people post over three million messages via BBS, news commentary sites, blogs, etc., and over 66% of Chinese netizens frequently place postings to discuss various topics, and to fully express their opinions and represent their interests. The new applications and services on the Internet have provided a broader scope for people to express their opinions. The newly emerging online services, including blog, microblog, video sharing and social networking websites are developing rapidly in China and provide greater convenience for Chinese citizens to communicate online. Actively participating in online information communication and content creation, netizens have greatly enriched Internet information and content.

[1] "The Internet in China" by the Information Office of the State Council of the People's Republic of China is available at *http://www.scio.gov.cn/zxbd/wz/201006/t667385.htm*

[2] A netizen is a person actively involved in online communities [27].

3. SINA WEIBO

From the above motivation, we think it is interesting to look at how trends start and evolve in various Chinese online social networks and to analyze the characteristics of trend-setters determining if they represent Government organizations, commercial organizations, the media, or individuals. We choose to analyze the characteristics of trends and trend-setters on Sina Weibo. Sina Weibo was launched by the Sina corporation, China's biggest web portal, in August 2009. On July 2009, the Chinese Government blocked the access to Twitter and Fanfou, the then leading Twitter clone, in China. Internet companies such as Sina and Tencent started offering microblog services to their users in mainland China. According to the Sina corporation annual report [3], the Weibo microblog now has more than 50 million active users per day, and 10 million newly registered users per month.

While both Twitter and Sina Weibo enable users to post messages of up to 140 characters, there are some differences in terms of the functionalities offered. We give a brief introduction of Sina Weibo's interface and functionalities.

3.1 User Profiles

A user profile on Sina Weibo displays the user's name, a brief description of the user, the number of followers and followees the user has, and the number of tweets the user made. A user profile also displays the user's recent tweets and retweets.

Similar to Twitter, there are two types of user accounts on Sina Weibo, regular user accounts and verified user accounts. A verified user account typically represents a well known public figure or organization in China. Sina has reported in the annual report that it has more than 60,000 verified accounts consisting of celebrities, sports stars, well known organizations (both Government and commercial) and other

[3] The Sina corporation annual report 2011 is available (in Chinese) at *http://tech.sina.com.cn/i/2010-11-16/10314870771.shtml*

VIPs.

3.2 The Content of Tweets on Sina Weibo

There is an important difference in the content of tweets between Sina Weibo and Twitter. While Twitter users can post tweets consisting of text and links, Sina Weibo users can post messages containing text, pictures, videos and links. Figure 3 illustrates some messages with embedded pictures and videos on Sina Weibo.

Figure 3: An Example of Embedded Videos and Pictures (Translations of the Tweets Omitted)

3.3 Retweets and Comments

Twitter users can address tweets to other users and can mention others in their tweets [13]. A common practice on Twitter is "retweeting", or rebroadcasting someone else's messages to one's followers. The equivalent of a retweet on Sina Weibo is instead shown as two two amalgamated entries: the original entry and the current user's actual entry which is a commentary on the original entry (see Figure 4).

Sina Weibo also has a functionality absent from Twitter: the comment. When a Weibo user makes a comment, it is not rebroadcasted to the user's followers. Instead, it can only be accessed under the original message.

Figure 4 illustrates two example tweets on Sina Weibo. The first is an original tweet made by a user, we can see that the retweeting and commenting buttons are listed under the tweet. The second is a retweet, we can see that the original message is retweeted 62 times and commented 10 times by other users.

3.4 Trending keywords

Sina Weibo offers a list of 50 keywords that appeared most frequently in users' tweets over the past hour. They are ranked according to the frequency of appearances. Figure 5

Figure 4: An Example of Comments and Retweets (Translations of the Tweets Omitted)

illustrates the list of hourly trending keywords (with translations). This is similar to Twitter, which also presents a constantly updated list of trending topics, which are keywords that are most frequently used in tweets over that period.

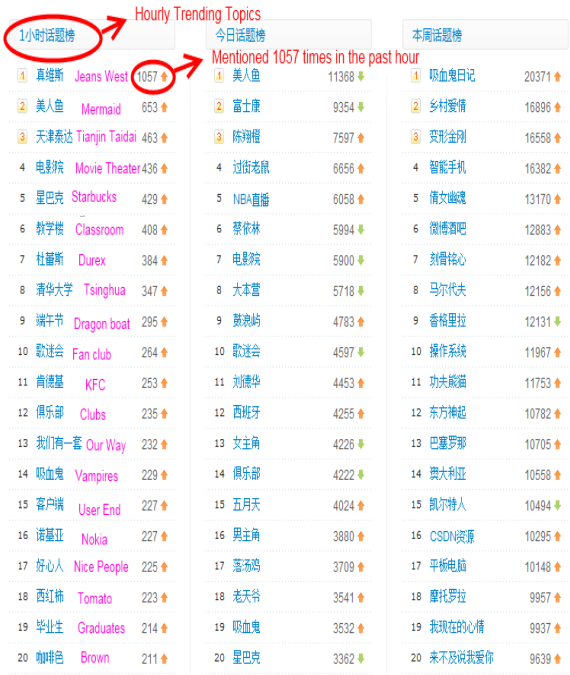

Figure 5: The List of Hourly Trending Keywords (with Translations)

We monitored the list of hourly trending keywords every hour for 30 days and retrieved every new keywords appeared in the list. We retrieved in total 4411 new trending keywords over the 30 days observation period.

To compare with Twitter, we obtained 16.32 million tweets on 3361 different trending topics over 40 days using the Twitter Search API.

4. EXPERIMENTS AND RESULTS

First, we calculated the distributions for the number of tweets and topics in our dataset. Figure 6 a) illustrates

Table 1: Top 20 Retweeted Users in At Least 10 Trending Topics

	ID	Author Description (Translated)	Verified Account	Retweets	Tweets	Topics	Retweet-Ratio
1	1757128873	Urban Fashion Magazine	Yes	1194999	37	12	99583.25
2	1643830957	Fashion Brand VANCL	Yes	849404	21	13	65338.77
3	1670645393	Online Travel Magazine	Yes	127737	123	21	57987.48
4	1992523932	Gourmet Factory	No	553586	86	12	46132.17
5	1735618041	Horoscopes	No	1545955	101	38	40683.13
6	1644395354	Silly Jokes	No	3210130	258	81	39631.23
7	1843443790	Good Movies	No	1497968	140	38	39420.21
8	1644572034	Wonderful Quotes	No	602528	39	17	35442.82
9	1674242970	Global Music	No	697308	116	22	31695.81
10	1713926427	Funny Jokes Countdown	No	3667566	438	121	30310.46
11	1657430300	Creative Ideas	No	742178	111	25	29687.12
12	1195230310	Famous Chinese singer	Yes	284600	25	10	28460
13	1750903687	Good Music	No	323022	52	12	26918.5
14	1757353251	Movie Factory	No	1509003	230	59	25576.32
15	1644570320	Strange Stories	No	1668910	250	66	25286.52
16	1802393212	Beautiful Pictures	No	435312	33	18	24184
17	1920061532	Global Music	No	432444	65	18	24024.67
18	1644574352	Female Fashion	No	809440	87	34	23807.06
19	1780417033	Useful Tips	No	735070	153	31	23711.94
20	1644394154	Funny Quizzes	No	589477	77	25	23579.08

the distributions for the number of users (Y-axies) with a certain number of tweets (X-axis) in our list of trending topics; Figure 6 b) illustrates the distribution for the number of users (Y-axis) whose tweets appear in numbers of topics (X-axis). As we can observe from the figure, both these distributions follow the power law.

4.1 Trend-setters on Sina Weibo

One of the main forms of information propagation in social networks such as Twitter and Sina is through retweets. When people find a tweet interesting either due to the content or the source, they forward it to their followers.

For every new trending keyword we retrieved the most retweeted tweets in the past hour and compiled a list of most retweeted users. Table 1 illustrates the top 20 most retweeted authors appearing in at least 10 trending topics each. We define an author's retweet ratio as the number of times the authors' tweets are retweeted divided by the number of trending topics these tweets appeared in.

For each author we have included the ID of the user account (ID), a brief translation of the description of the authors (author description), whether it is a verified account, the number of tweets the author made in the trending topics (tweets), the number of times these tweets are retweeted, the number of topics the authors' tweets appeared in (topics), and finally, the influential authors are ranked according to their retweet ratios.

4.1.1 Authors

From Table 1 we observed that only 4 out of the top 20 influential authors were verified accounts. The 4 verified accounts represent an urban fashion magazine, a fashion brand, an online travel magazine, and a Chinese celebrity. The other 16 influential authors are unverified accounts. They all seem to have a strong focus on collecting user-contributed jokes, movie trivia, quizzes, stories and so on. When we further inspected these accounts, we discovered that these accounts seem to operate as discussion and sharing platforms. The users who follow these accounts tend to contribute jokes or stories. Once they are posted, other followers tend to retweet them frequently.

Author	Retweets	Topics	Retweet-Ratio
vovo_panico	11688	65	179.81
cnnbrk	8444	84	100.52
keshasuja	5110	51	100.19
LadyGonga	4580	54	84.81
BreakingNews	8406	100	84.06
MLB	3866	62	62.35
nytimes	2960	59	50.17
HerbertFromFG	2693	58	46.43
espn	2371	66	35.92
globovision	2668	75	35.57
huffingtonpost	2135	63	33.88
skynewsbreak	1664	52	32
el_pais	1623	52	31.21
stcom	1255	51	24.60
la_patilla	1273	65	19.58
reuters	957	57	16.78
WashingtonPost	929	60	15.48
bbcworld	832	59	14.10
CBSnews	547	56	9.76
TelegraphNews	464	79	5.87
tweetmeme	342	97	3.52
nydailynews	173	51	3.39

Table 2: Top Retweeted Users on Twitter contributing to at least 50 trending topics each

We further inspect one of the accounts: ID 1644395354 (see Figure 7); This account focuses on posting tweets about jokes. We see from the description of the user that this account welcomes submission from followers. Followers of this account can email jokes to the account and the account administrator will post them. From Figure 7 we also see a contribution from a follower.

The corresponding most retweeted users for trending topics on Twitter is shown in Table 2. In this case, the list is

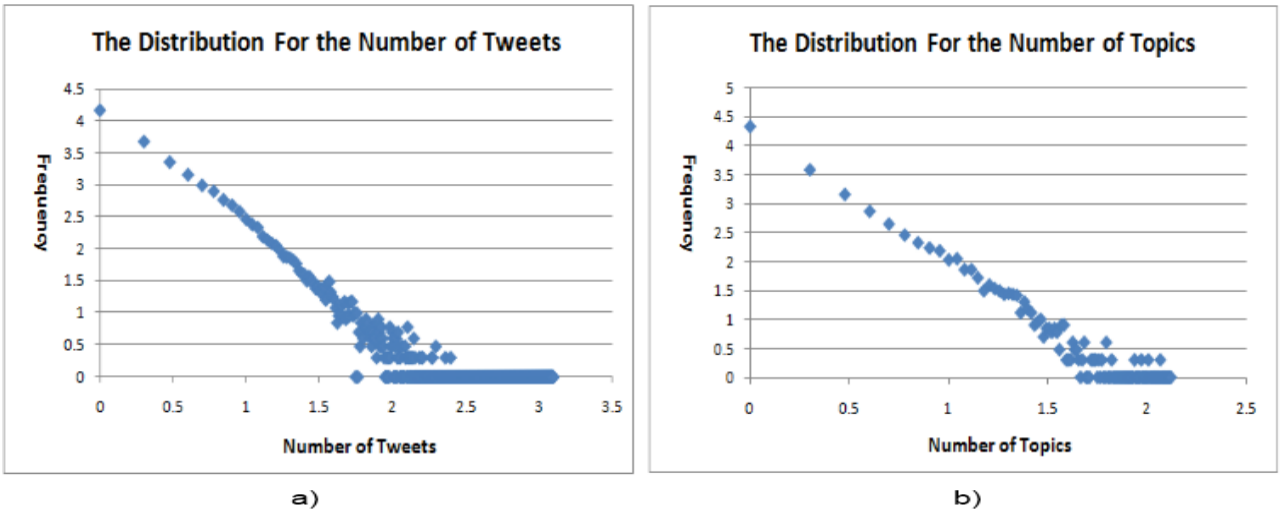

Figure 6: The Distribution for the Number of Tweets and the Number of Topics

Table 3: Profile Information for Top 20 Retweeted Users

	Images(%)	Videos(%)	Links(%)	Followees	Followers	Tweets
1	70%	0%	32%	673	461398	719
2	57%	71%	0%	715	300358	2508
3	21%	0%	17%	67	597063	2600
4	30%	0%	0%	20	245026	518
5	20%	0%	0%	81	1884896	4261
6	8%	0%	0%	650	3536888	10598
7	15%	11%	0%	12	625117	804
8	46%	0%	0%	368	2338610	3605
9	0%	22%	0%	79	405847	716
10	5%	1%	0%	11	2411888	17818
11	14%	4%	0%	634	1551438	4899
12	44%	16%	0%	352	6107858	1850
13	0%	50%	0%	1136	590099	2041
14	6%	7%	0%	303	1210833	11411
15	10%	0%	1%	555	1220027	4249
16	45%	0%	0%	13	615461	1254
17	5%	40%	0%	12	496171	571
18	30%	0%	0%	60	901612	3506
19	15%	3%	0%	9	763264	2718
20	25%	0%	0%	4	853877	2362

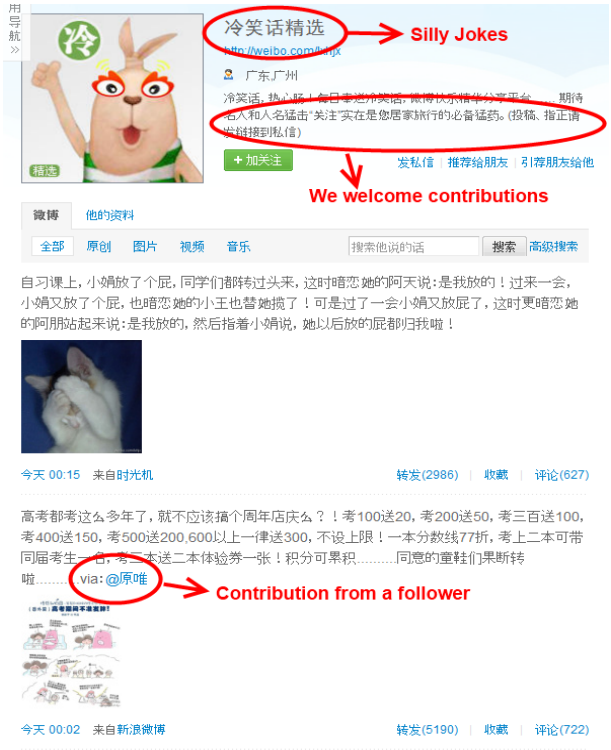

Figure 7: An Illustration of an User Account on Sina Weibo

dominated by popular news sources such as CNN, the New York Times and ESPN. A large percentage of the topics that trended accordingly dealt with events in the news. This indicates that Twitter users are more attuned to news events than Sina Weibo users and amplify such articles through the medium of Twitter. On the other hand, the consistent trend-setters on Sina Weibo are not media organizations. Instead they are unverified accounts acting as discussion forums and a platform for users to share funny pictures, jokes, and stories. We observe that none of the unverified accounts in Table 1 are personal accounts, with only 1 out of 4 verified accounts (in the top 20) belonging to a media organization. This represents an important contrast in the use of these media, with Chinese users being more inclined to share and propagate trivial content than the Twitter users.

4.1.2 *Retweets*

When we consider the ratio of retweets, we once again observe a strong contrast with Twitter. The number of retweets that authors get on Sina Weibo are several orders of magnitude greater than the retweets for the trending topics on Twitter, although they contribute to fewer topics. This implies that the topics are trending mainly because of some content that has been retweeted many times. The *Tweets* column in Table 1 gives the unique tweets that have been retweeted. We can observe that the rate at which they have been retweeted is phenomenal. For example, the top retweeted user posted 37 tweets which were totally retweeted 1194999 times. The overall retweet percentage was around 62% for the trending topics. In contrast, for Twitter trends, the retweets form only 31% of the overall tweets for the trending topics. While retweets do contribute to making a topic trend on Twitter, their effect is not so large.

Author	Followees	Followers
vovo_panico	1069	154589
cnnbrk	41	4380908
keshasuja	0	88
LadyGonga	37	136433
BreakingNews	382	2570662
MLB	18829	1237615
nytimes	465	3250977
HerbertFromFG	763	23318
espn	286	1326168
globovision	3582	753440
huffingtonpost	4684	1042330
skynewsbreak	5	198349
el_pais	46226	572260
stcom	12	59763
la_patilla	51	306965
reuters	603	724204
WashingtonPost	284	458721
bbcworld	20	796009
CBSnews	122	1716649
TelegraphNews	238	38599

Table 4: Follower/Followee relationships for Top Retweeted Twitter Users

4.1.3 *Embedded Images, Videos and Links in Tweets*

For the list of trend-setters on Sina Weibo (Table 1), we also examine the content of their tweets that appeared in the trending topics. Table 3 illustrates the percentage of these users' tweets which included images, videos, and links. We observe that a large percentage of the tweets of these users include an embedded image, and many tweets included an embedded video or a link. On the other hand, Twitter users post links in only 17.6% of the tweets on trending topics. This is again demonstrative of the type of content that is shared in these two social media services.

4.1.4 *Follower Relationships*

For each of the influential authors, we looked at the number of followers and followees they have, and the total number tweets they have made since their accounts are activated (Table 3). We discovered that most of the influential authors have more followers than followees. We hypothesize that these influential authors do not actively seek out accounts to follow. It is their content which attracts other users to follow them. Interestingly, we found this to be true on Twitter as well (shown in Table 4), with the top retweeted users having very skewed follower/followee ratios.

4.1.5 *Verified Accounts*

When we considered the top 100 trend-setters, we found that only 23 were verified accounts. The descriptions of these 23 are shown in Table 5. We observed the verified accounts are of celebrities, newspapers, magazines and a few other media sources.

4.2 Random Profile Analysis

From the above analyses, we observe that the Sina Weibo user accounts whose tweets are retweeted frequently and appear in multiple trending topics over time are mostly estab-

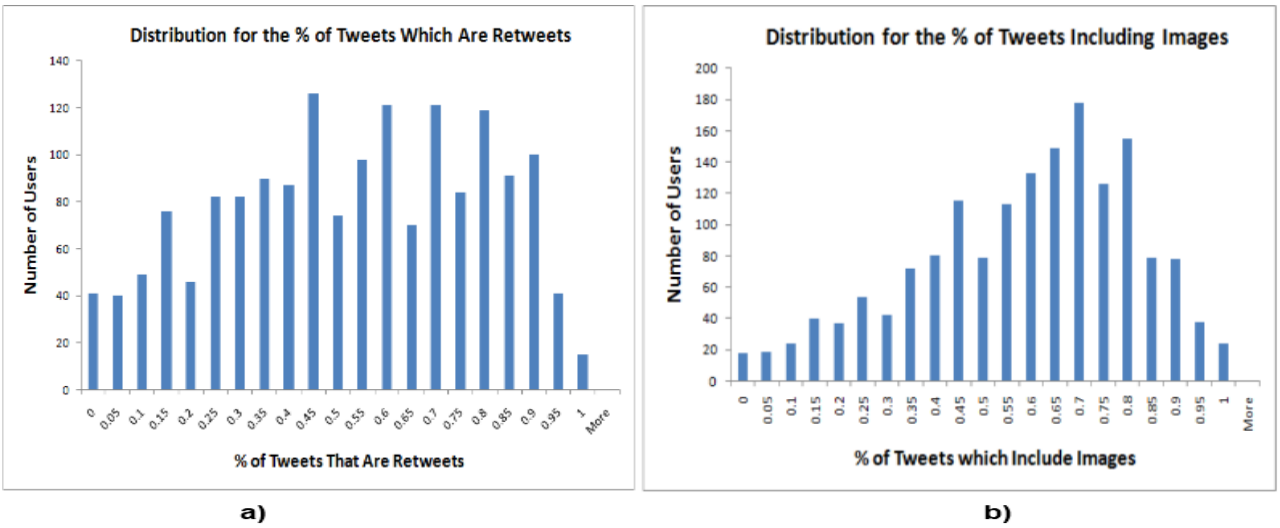

Figure 8: The Distribution for the Percentage of Tweets that are a) Retweets and b) include images

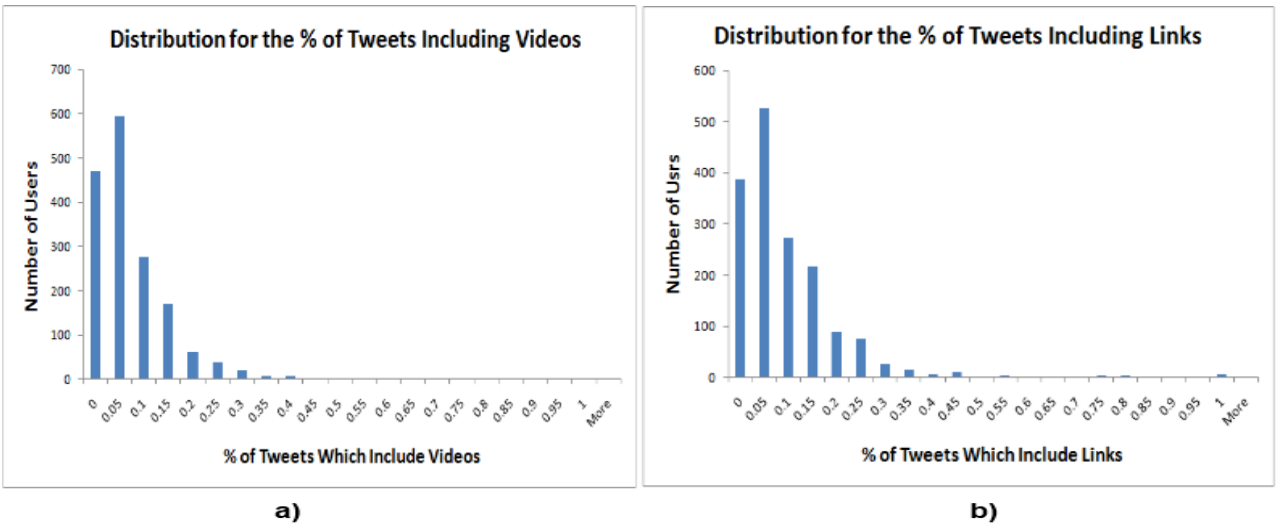

Figure 9: The Distribution for the Percentage of Tweets that include a) Videos and b) Links

lished for discussion and image/video sharing purposes. Followers use these accounts to share interesting stories, jokes, and pictures. We hypothesize that in general, users of Sina Weibo tend to retweet information more often than Twitter users. We also hypothesize that a high percentage of these users' tweets tend to include an image or a video for illustration purposes.

To verify the above hypothesis, we selected 1732 random users on Sina Weibo. For each user, we retrieved his/her last 100 tweets and analyzed the percentage of the tweets which include images, videos, links and the percentage of tweets that are retweets.

Retweets: We find that on average 50.24% of the tweets are retweets (49,76% of the tweets are original tweets), 56.43% of the tweets include an embedded image (43.57% of the tweets do not), only 5.57% of the tweets include an embedded video (94.43% did not) and 8.03% of the tweets include a link (91.94% did not). We observe that over half of the tweets by our 1732 random users are retweets, and over half of the tweets include an embedded image. Figure 8 a) illustrates the histogram for the number of users with a certain percentage of tweets which are retweets. We see that the distributions for the number of users are fairly even throughout all the percentages and is especially high around 45%, 60%, 70% and 80%.

Content: Figure 8 b) illustrates the histogram for the number of users with a certain percentage of tweets which include an embedded image. We see that the distribution for the number of users peak at around 55% and 80% while remain low below 40% and above 85%. Figure 9 a) and 9 b) illustrates the histograms for the number of users with a certain percentage of tweets which include a video or a link. We see that both distributions peaked at 5% and then diminish quickly after. In the case of twitter, all forms of media are shared through the use of hyperlinks. It has been shown in [24] that URLs form 1/15th (6.6%) of all twitter

Rank	ID	Description
1	1757128873	Fashion Web Magazine
2	1643830957	Fashion Brand
2	1670645393	Travel Web Magazine
12	1195230310	Celebrity
21	1740006601	Celebrity
25	1730380283	Game Discussion Forum
26	1760945071	Chinese Groupon
42	1322920531	Celebrity
43	1771665380	Record Label
46	1266321801	Celebrity
48	1883881851	Organization (NBA China)
58	1698229264	Music Web Magazine
62	1642591402	Sina Entertainment
70	1743374541	Pictures Discussion Forum
71	1618051664	Sina News
74	1653689003	Newspaper
75	1640601392	Sina Video
82	1195031270	Celebrity
83	1835254597	Music Web Magazine
84	1830442653	Music Web Magazine
95	1765148101	Sina Fashion
96	1258256457	Celebrity
100	1596329427	Celebrity

Table 5: Verified Accounts Among Top 100 Trendsetters

traffic. This is a very low percentage when compared to Sina Weibo.

5. CONCLUSION AND FUTURE WORK

We analyzed the tweets that are responsible for causing trending topics on Sina Weibo and the users that created these tweets. We observed that there are vast differences between the content that is shared on Sina Weibo than that of Twitter. People tend to use Sina Weibo to share jokes, images and videos and a significantly large percentage of posts are retweets. The trends that are formed are almost entirely due to the repeated retweets of such media content. In contrast, we observed on Twitter that trending topics are mainly caused by sources of media [2].

As future work, we plan to conduct further temporal analysis regarding the evolution of trends on Sina Weibo. We also plan to identify the patterns of retweets between followers of influential authors.

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