Social Media: An Ill-Defined Phenomenon

James White[1], King-wa Fu[2], and Braeden Benson[1]

[1] Center for Advanced Communications Policy, Georgia Institute of Technology, USA
[2] Journalism and Media Studies Centre, University of Hong Kong, Hong Kong
{ James.White,braeden}@cacp.gatech.edu, kwfu@hku.hk

Abstract. This paper questions whether and to what extent social media matches its many presumed desirable attributes, through references to social media in the United States and China, and in light of data that indicates that social media use tends to be dominated by a small group of elite users and driven by conventional forces. It concludes with implications for policy development.

1   An Ill-Defined Phenomenon

The promises of social media are many. "Everyone is a media outlet" proclaims Shirky's *Here Comes Everybody* (2008). A list of common descriptive features of social media includes interactive, user-generated, collaborative, shared, social network and rapid information dissemination (Kaplan & Haenlein, 2010). This paper questions whether and to what extent social media does or can realize the positive potential embedded in such a catalog of presumed desirable attributes.

Scott states that "there isn't a hard- and fast- definition of social media that everyone agrees on" (2007, 64), with the consequence that "there seems to be confusion among managers and academic researchers alike as to what exactly should be included under [the term social media]" (Kaplan & Haenlein 2010, 60). Cohen (2011) found some of his respondents defined social media by their platform and outputs, and others by the interactive communications they enable. Greenstein identifies this as a basic dichotomy in approaches to the term, that not only is social media the "technologies (people use to) share content, opinions, insights, experiences, perspectives, and media," but that social media is also the "practices" by which people share content (Cohen, 2011). We can discern two basic approaches: to consider social media as a wide range of "interactive digital tools" (Fraustino et al, 2012) or platforms; or to focus on the mode of social media, the way its content happens and is used, "to the interaction of people and also to creating, sharing, exchanging and commenting contents in virtual communities and networks" (Ahlqvist et al, 2010).

Lack of a widely accepted definition of the term social media[1] muddies the communications waters, as does a frequent conflation of social media with the much larger concept of social network, which has widespread acceptance in the sociological

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[1]   See also FEMA 2012, Lindsay 2011, Xiang & Gretzel 2010.

literature. This is especially true when communication is urgent, for example in the origination and dissemination of alerts and warnings at the time of an emergency, or when the subject is in some way controversial. In short order, legal, political and social issues arise. Exemplar areas of concern include privacy, credibility, security, free speech, trust and censorship.

The definitional confusion reflects a wider debate in the literature, between those who depict the "inexorable rise (of social media)… while legacy media are still in decline" (O'Connor, 2012: 259), and others like MacKinnon (2012) and Carr (2010) who warn about the need to govern the new technologies and to pay attention to what may be lost as well as what is gained through such technology. In short, the contrast is between the potential of social media as technologies, and the cultural, economic, historical and social settings that provide their context.

Evaluating social media becomes problematic without this context, epitomized in the debacle of the initial offering of shares in Facebook in May 2012, which dropped by 45 percent in value in the first five months. In part, this was a reflection of uncertainty about the worth, effectiveness and impact of the social media phenomenon, in turn signaling confusion over the meaning of the term. For example, can impact be measured with a yardstick other than subscriber base? Is effectiveness to be measured by the means, the tools of social media (e.g., which platforms should be considered, in what priority, for which audience?) or by the mode of delivery, whether a push (publishing) or a pull (not only receiving information, but also actively soliciting input from the public) or a relay (passing on information)?

The problem is compounded when social media goes international. In authoritarian China, for example, "social" and "media" are terms loaded with alternate meanings. In the view of government, Chinese social media are likely to be defined and contextualized as a mixture of user-generated contents, a variety of social networks (layered on top of physical social networks), and social control. In terms of the Chinese user, another layer of meaning is suggested by the underlying idea of social networking, the potential for development of a civil society parallel to or beyond that mandated by communist party control.

Further, the mechanics of social media can differ. The Chinese equivalent of Twitter is *Sina Weibo,* which claims registered user figures comparable to Twitter's 500 million (Cooper, 2013). *Weibo* is a direct translation of the word "microblog"; however, *weibo* is more of a Twitter-Facebook hybrid than a pure Twitter clone. Like Twitter, *weibo* allows users to post and share short messages with 140 characters or less, and allows users to "follow" another user or to repost (or "retweet", in Twitter parlance) another user's post to one's own readership. There are important differences, however, including the capability to repost a post with one's post as a separate entity on *weibo* (Twitter allows only 140 characters for the retweeted post and user comment together), and the fact that the nature of the Chinese language is such that each "character" is potentially an ideogram, with embedded meaning, so that a Chinese post translated into English could be many sentences long. These differences change the dynamics of conversation on *weibo* systems to make them more like a dialog, as *weibo* also organizes threaded comments for individual posts.

The purpose of this paper is to focus on the frequent mismatch between the promise of social media (as captured in some of the citations above) and the reality as shown through observation and research. Consequently we are primarily interested in describing social media in terms of communications processes, the practices rather than the technologies, and in focusing on various characteristics that are commonly attributed to them. We broaden the consideration of social media from the technological means (the platforms) to the manner of communication itself. [2]   In part this is for the practical reason that the social media technologies and platforms are so remarkably diverse. For example, Fraustino proposes a categorization schema of ten different social media types, illustrated with 26 separate social media examples, all American. We choose to focus on characteristics of two of the types identified by Fraustino: microblogs (American examples: Tumblr, Twitter; Chinese examples: *Sina Weibo*, *Tencent Weibo*) and social/professional networking (American examples: Facebook, Google +, LinkedIn, MySpace; Chinese examples: *Renren, Kaixin*).

2   Characteristics of and Differences from Common Perceptions

In the following sections we discuss and question some common perceptions of social media.

2.1   Participation

Over the past decade, the notion that the Internet has opened up the public sphere to increased participation has been widely shared (see Benkler, 2006; Kline & Burnstein, 2005; Dahlberg, 2001). More recently the nature and extent of that participation has come under scrutiny. Starting in 2009 Bakker carried out a representative survey of more than 2,000 Dutch people to determine their use of "participatory media" defined as "blogs, Twitter, discussion forums, social networks and comment sections of blogs and news sites," in order to ascertain who actively engaged in political discussions or contributed content to online forums. Bakker found a major imbalance between the active and the passive audience, a division between those who consume and those who actually contribute content. For example, very few (6%) contributed to social media political discussions. And they were the usual suspects: already engaged in such discussions, often male and usually highly educated (Bakker, 2013).

2.2   Interactivity

The above findings reinforce a number of studies into the phenomenon of participation inequality (see Nielsen, 2006) and reflect negatively on another social media shibboleth, the notion that social media represent bi-directional communication, i.e. interactivity, especially in contrast to the traditional media which are seen as one-way communication. As Bakker indicates, this seems to be overstated – only a small group

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[2]   The authors chose not to emphasize the question of content, due to space considerations.

of social media users are actively speaking while most are primarily listening. One quantitative indicator is the percentage of lurkers among users, representing the proportion of social media users who follow the posts but never contribute. Nielsen describes the 90-9-1 rule, that 90% of users are lurkers, 9% contribute from time to time, while 1% are heavy contributors, with some social media, such as blogs and Wikipedia, being even more heavily skewed (Nielsen, 2006). In China, a recent *Sina weibo* study revealed that 57% of 30,000 randomly sampled *weibo* accounts have nothing in the timeline, indicating that this group of users did not write anything   at all (Fu & Chau, 2013). These findings suggest that even if social media have considerable potential to empower human interpersonal communication, only a minority of users exploits that potential. Most communication among social media users, whether in the U.S. or in China, is unidirectional – like broadcasting. They also bring into question other characteristics commonly attributed to social media, such as the ideal of a collaborative space for users – this may be the exception, not the rule, especially in the case of microblogs, where only a small percentage of the messages are original, and most are retweets (Yu et al, 2012) – and of sharing, when in fact this may be the exception, not the rule (ibid).

2.3   Homophily

Even if social media users do manage to interact with each other, i.e. social networking does take place, they are likely to share pre-existing similarities. Similarity breeds connection, in the phenomenon known as homophily or "Birds of a feather flock together" (McPherson et al, 2001). Both Twitter and *Sina Weibo* share in this behavior, with the Chinese social media site users having especially pronounced homogeneity, and also being notably more hierarchical in structure, with users tending to follow those at a higher or similar social level (Chen et al, 2012).   At worst, this serves to polarize opinion development or reinforce the segregation of user communities. Conover et al (2011) found a "highly segregated partisan structure" in their analysis of political communication on Twitter during the 2010 U.S. congressional midterm elections (Conover et al., 2011), although interestingly this applied to the retweet network (in which users are connected if one has rebroadcast content produced by another), not to the user-to-user mention network (in which users are connected if one has mentioned another in a post, including the case of tweet replies).

2.4   Rapid Information Dissemination

The speed of social media is a given, and of great importance in countries like China, where users engage in a constant game of cat-and-mouse with the authorities. Bakker points out that, contrary to his general finding that there is limited political use of online participatory media, in countries with low levels of press freedom, participation in online social networks is relatively high (Bakker, 2013: 36).   Tufekci & Wilson (2012) describe social media, in particular Facebook, as key news sources which the government could not easily control at the time of Egypt's Tahrir Square protests in 2011, and as playing a vital role as facilitators of protest participation. However

rumor enjoys the same advantage. During the Hurricane Sandy disaster, the Federal Emergency Management Agency (FEMA) had to set up a rumor control center on their website to counteract the large amount of misinformation provided on social networks.[3] Hill (2012) identified one individual microblogger as being particularly prominent in the spreading of false information, made more problematic by the fact that some of his tweets were true. However social media itself was used to quickly separate the false from the accurate (ibid).

In China, reliable information is scarce, official sources are not seen as trustworthy, and the public information system is not well-developed. The Chinese government has developed a long track record of hiding sensitive and controversial information, leading to a popular tendency to discount government information but place relatively higher trust in unofficial information sources, which may partly explain some recent cases in China when rumors went viral on *Sina Weibo*. Examples include stories of "Tanks in the streets of Beijing"[4] at the time of the sudden fall of a party leader, Bo Xilai, and fears of radiation from the tsunami-damaged Fukushima Daiichi nuclear-power complex in Japan reaching Chinese coastal cities, leading to residents in Shanghai to stock up on iodine pills.[5] Especially during a crisis, trust is an overarching mediating factor in the information exchange involving the authorities and the people and both traditional and social media in credibility-seeking, no matter whether it is situated in American or Chinese settings (White & Fu, 2012).

3   Old Media, New Media: How Much Has Changed?

The proudest claim of social media may be that they have opened up the public sphere to voices that otherwise would be ignored. The following case history from China suggest that while this claim may be true in part, the amplification effect from other, traditional media still makes a major difference.

After Xi Jinping was elected to be General Secretary of the Chinese Communist Party in November 2012, the identities of a number of corrupt Chinese officials were revealed by journalists and by citizens who disclosed evidence, photos, and video on *Sina Weibo*. The posts were retweeted massively and discussed openly, and for the most part were not censored by the authorities. It remains unknown whether the relative lack of censorship was deliberate or coincidental.

The Journalism and Media Studies Center team collected samples of more than 20 such incidents about corrupt Chinese officials from November to December 2012. Their results showed that online versions of the traditional media (including Sina.com, Southern Metropolis Daily, People's Daily, and Phoenix TV) remain major

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[3] http://www.fema.gov/hurricane-sandy-rumor-control.

[4] "Rumor, Lies, and *Weibo*: How Social Media is Changing the Nature of Truth in China." http://www.theatlantic.com/international/archive/2012/04/rumor-lies-and-weibo-how-social-media-is-changing-the-nature-of-truth-in-china/255916/

[5] "China Fights Fears and Rumors of Japan Radiation." http://blogs.wsj.com/chinarealtime/2011/03/16/china-fights-fears-and-rumors-of-japan-radiation/

sources of information amplification, even though the first *weibo* associated with an incident was often contributed by individual microbloggers. This challenges another oft repeated characteristic of social media, that it is undermining the status and the impact of traditional media (Clark & Aufderheide, 2009).

As an illustration of the observation that the individual microblogger relies on other high-follower-count microbloggers (such as the social media presence of traditional media) to get their message across, the following is a striking example. On March 4, 2012, a *weibo* was posted from a *weibo* account named "旸旸旸" ('旸' means sun in Chinese) on the day before the opening of the National People's Congress 2012 in Beijing. Account "旸旸旸"'s profile picture reveals that she is a Beijing-based young woman with 609 followers. The *weibo* read "Luxury Brands in Two Meetings" and featured photos of the luxury name brand goods worn by attendees [Figure 1]. This post was retweeted 7,040 times when it was published at 10:52am.
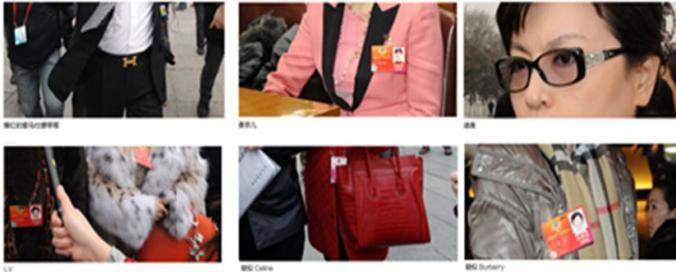
Fig. 1. Illustration of Chinese congress members wearing luxury brand name goods

The retweets were collected and the time trend pattern of posting and mode of message diffusion analyzed. Figure 2 displays the hourly time trend of the retweets, in which two major spikes – sudden increases in the numbers of retweets – occurred at 1 p.m. and 5 p.m. on the same day.
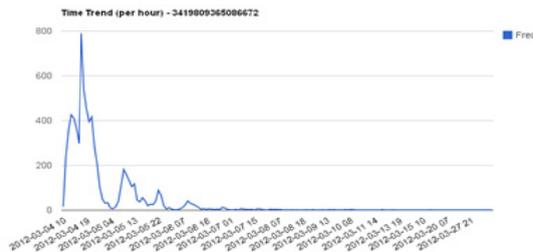
Fig. 2. Time Trend (per hour)

An analysis of the ten highest retweets from microbloggers revealed the frequency of retweets originating directly from their accounts, i.e. out degree in a network graph. Besides the original poster, 旸旸旸, who was ranked as first, the second and the

fourth top retweeted microbloggers were 凤凰网围观 (551) and 鳳凰網歷史 (87) . Both accounts belong to online branches of Phoenix Television (凤凰卫视), which is a commercial television broadcast channel in mainland China.

In Figure 3, the diagram presents the microbloggers' retweets generating a network connected by retweets (arrows) between users (nodes). Nodes 551 and 87 form the "epicenters" of the two major clusters of retweets that help propagate the original post to a larger and broader network of microbloggers. This exemplifies the significant role of the online presence of traditional media in *weibo* message diffusion, indicating that social media alone may not be sufficient to distribute information from an individual to the society at large. Social media may be user generated, but often it is the megaphone provided by the mainstream media that let's the user voice be heard.
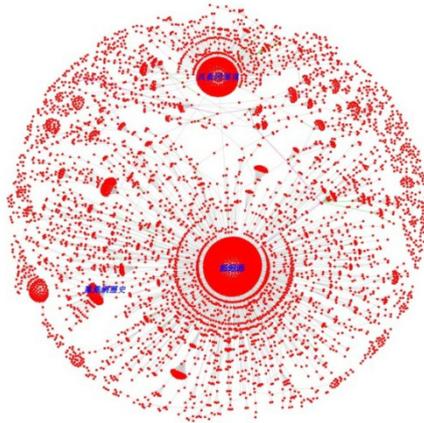

Fig. 3. "Broadcasting" social media

3.1   Developing Trust

Finally, on a more positive note, the real promise of social media may lie in a different direction, that of credibility, trust building and information prioritization. White and Fu (2012) proposed "trust" as a key variable in their iterative credibility seeking model of the communication process at times of emergency and consequently called for the inclusion of new forms of mediated interpersonal communication, including social media, in that verification process. They emphasized the importance of such communications for the disconnected (because of social or economic circumstances) or disadvantaged (such as people with disabilities). This suggests a direction where the promise of social media might be realized. In their analysis of the real-time use of social media in an actual emergency situation (the presence of an armed intruder on a college campus), Tyshchuk et al (2012) found that Twitter played an important role in the warning and verification process. Gilbert and Karahalios (2009) built a predictive model that mapped social media data from Facebook to tie strength, with implications for privacy controls, message routing, and friend introductions.

4   Implications for Policy Development

The expectation is that social media will empower people, allowing them to express opinions and to contribute to the formation of public discourse on a variety of social platforms. The OECD foresees that such modes of online participation can establish a new avenue for enriching political discussion and societal debates, potentially increasing diversity of opinions and promoting pluralism (OECD, 2007). Many countries around the world have initiated e-government activities, including the United States. In 2009, President Obama committed to "creating an unprecedented level of openness in Government" by working to "establish a system of transparency, public participation, and collaboration" (The White House, 2009). The push for open government promoted many government agencies "to [develop] and [expand] their presence via social media technologies with several agencies using social media such as Facebook, Twitter, Flickr, and YouTube for various purposes, depending on mission and goals" (Bertot et al, 2010).

We argue for caution in evaluating such expectations. The optimism that is regularly associated with social media may be built on an ill-defined, misconceived, and technologically deterministic conception, which in some cases contrasts with reality. This apparent reality gap can have significant policy implications, for example, the notions of participation inequality and homophily, as described above, can undermine the potential of social media for promoting pluralism or may even encourage its opposite. Fake information and distrust in the social media message may discourage diversity of opinions and de-motivate people from participation, and can have a serious negative impact on the use of social media at times when it could be particularly valuable, such as disasters and emergencies, or for those whose communications needs are acute, such as people with disabilities.

We should also leave room for caution when gauging the impact of social media. Social media create massive data sets collected from the virtual world's user profiles, content, and usage activities. These are extensively extracted, analyzed, and manipulated in the hope of better understanding "real world" problems, such as disease surveillance or the recovering and analysis of censored social media posts in China (Fu, Chan, & Chau, 2013). Too often such data mining is done in the services of overtly political or commercial ends, and we might do well to heed the warnings of boyd & Crawford (2012), that "given the rise of Big Data as a socio-technical phenomenon, we argue that it is necessary to critically interrogate its assumptions and biases."

Finally, attention is due to what has always been a challenge for media, whether new or old, that of censorship. Internet censorship is no longer a policy restricted to authoritarian states like China, but also exists, by different means, in democratic societies. As noted by Bambauer (2013, 1):

> *Internet censorship has evolved. In Version 1.0, censorship was impossible; in Version 2.0, it was a characteristic of repressive regimes; and in Version 3.0, it spread to democracies who desired to use technology to restrain unwanted information. Its latest iteration, Version 3.1, involves near-ubiquitous censorship by democratic and authoritarian countries alike.*

The internet and social media are global, and that is the stage on which censorship policy as applied to social media is being developed. While social media in China is avowedly censored, employing a "distributed, heterogeneous strategy for censorship that has a great amount of defense-in-depth" (Zhu et al, 2013:11), to date, specific attempts at censorship in the West have been isolated, and controversial. At the time of riots in English cities in August 2011, Prime Minister Cameron announced to Parliament talks with companies including Twitter and Facebook to discuss actions that could limit their reach, as social media were widely used to co-ordinate the riots across the country (Scotsman, 2011), but apparently those actions did not occur. While political censorship of the Internet in the West will always be contentious (but as various reactions to Wikileaks show, not beyond consideration), a greater concern may be corporate self-censorship. For example, while China has recently implemented a real name registration system for all Internet users, companies like YouTube and Google, have expressed interest in requiring the disclosure of real identities to minimize trolling, so that if a user wants to post an Android app review, a public Google+ account, i.e. the user's name, is required. Early research into the impact of real identity requirements imposed on Chinese microbloggers is not encouraging, as it suggests that the new policy might already have stopped some microbloggers from writing about social and political subjects (Fu et al, 2013).

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