Predicting Media Credibility in China: The Influence of Weibo Use

Fei Shen
Department of Media and Communication
City University of Hong Kong, Hong Kong

Hongzhong Zhang
School of Arts and Communication
Beijing Normal University, China

Abstract
A telephone survey was conducted in a metropolitan city in 2012 to examine people’s credibility ratings of different media outlets, in particular, Weibo – one of the most popular social media platforms in China. Our findings suggest: First, people place more trust in traditional news media than in online sources by a significant margin. Second, demographic influences on media trust seem to be minimal. Only age and gender were related to some credibility measures. Third, Weibo use was not related to one’s credibility perception toward traditional media but interestingly, Weibo use showed different impacts on people’s evaluation of Weibo’s credibility. Commenting frequency was negatively related to one’s trust in Weibo, while retweeting frequency was positively related to one’s trust in Weibo.

Keywords: Weibo, Social media, China
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As social media platforms become an important venue for muckraking, opinion expression, and occasionally social mobilization, the extent to which people place trust in the new and old media outlets becomes an interesting social phenomenon. It is well known that the Chinese media is strictly managed by the government. Information disseminated through television, newspapers, radio, and magazines is to different degrees filtered by a set of rules. Yet social media, a group of Internet-based applications known for their user-generated content are subject to less efficient control because of the innate technological characteristics embedded within the platform.

Against this background, this study aims to explore the influence of Weibo use on people’s evaluation of media credibility. More specifically, we examine three interrelated questions. First, do people place more trust in the Internet or the traditional media? Second, which segments of the population place more trust in the Internet? Third, will frequent use of social media chip away people’s trust in traditional news outlets? To answer these questions, we first briefly review the bulk of prior studies on media trust and perceived credibility, mostly conducted in Western societies. We then move onto discussing a few relevant studies carried out in Mainland China. Last, findings from analyzing a survey data set collected in 2012 in Shenzhen will be presented and discussed.

Media Credibility Research

Research on media credibility and media trust has a long-standing history in the U.S. The existing literature on media credibility could be roughly categorized into three streams. The first stream of research focuses on concept explication and measurement development. Hovland, Janis, and Kelley (1953) proposed a two dimensional conceptualization for credibility: expertise and trustworthiness. Gaziano and McGrath (1986) examined the 1985 ASNE (American Society of Newspaper Editors) survey, and their exploratory factor analysis showed a 12-item solution, including being fair, unbiased, trustworthy, complete, factual, accurate, etc. Kohring and Matthias (2007) conceived trust in news media as a hierarchical factor, which includes individual’s trust...
in “selectivity of topics,” “the selectivity of facts,” “the accuracy of depictions,” and “journalistic assessment.”

The second category of studies concerns the ebb and flow of media credibility. In response to those who were worried about a declining media trust in the 1980s, Gaziano’s (1988) analyses of four 1985 surveys demonstrated the opposite. Yet more recent studies confirmed a continuing decline of media credibility in the US and Europe (e.g., Iyengar & McGrady, 2007; Golding, Sousa, & van Zoonen, 2012), from about 85% of respondents expressed at least “some” confidence in the press in the 1970s to about 60% in the early 2000s (Liu & Bates, 2009).

The third stream of studies examines the nuanced relationship between media use and media credibility. Carter and Greenberg (1965) suggested that people judge their preferred medium to be more credible. Johnson and Kaye (2000) showed reliance on media was the strongest predictor of credibility of online news sources. However, not all research projects point to a consistent finding. For instance, Rimmer and Weaver (1987) found that use frequency was not correlated with credibility but measures of media preference were more closely linked to credibility ratings. Williams (2012) discovered that attention to online news was not related to Internet news trust.

Media credibility research in Mainland China started in the 1980s. Given the liberal political environment then, the early media credibility surveys were mostly conducted by Party papers, propaganda department, the Chinese Academy of Social Sciences, and other government branches. Findings from these studies were mostly descriptive. Data showed that the majority of people were satisfied with the media but the demands for press reform were high (Chen & Mi, 1989). The incident in 1989 raised an alert to the powers that be. The government rolled back the political reforms and confined the reform to the economic realm. Public opinion surveys thus became a sensitive social science practice for more than a decade. However, it is the economy that paves the way for the rebirth of survey studies on media believability.

In the late 1990s, media marketization and conglomeration created fierce competition among media institutions. To the extent that media credibility is believed by many to be one of the antecedents to higher market share, people’s trust in the media
became a topic that attracted both industry and scholarly attention. These recent studies aligned themselves more with the American tradition in at least two aspects. First, there were efforts to create localized media credibility measures (e.g., Yu & Jin, 2006). Second, researchers were no longer satisfied with descriptive analysis but reached out to identify the predictors of media trust including demographic variables, media use, media reliance, geographic variables, etc. (Liao, Li, & Zhang, 2005; Yu, Zhang, & Jin, 2007; Yu & Zhang, 2007; Yu & Jin, 2006; Shen, Lu, Guo, & Zhou, 2011).

**New Media and Media Credibility**

The rise of the new media poses a pressing threat to how people see the old media. In the US, many studies have investigated the influence of the Internet on traditional media credibility. Researchers found that Internet users judged the online counterparts of traditional sources as more believable than their parent news organizations (e.g., CNN and CNN.com) (Johnson & Kaye, 1998; Pew, 2000). Weblog users considered blogs as more credible than traditional sources (Johnson & Kaye, 2004).

However, the growing popularity of the Internet is more complicated than the new replacing the old. First, credibility perceptions do not necessarily follow a zero-sum process. The increase of online news credibility does not imply a corresponding decrease in traditional media credibility (Andrew, Flanagin, & Metzger, 2001; Bucy, 2003). Second, not all online sources were perceived as more trustworthy than traditional media outlets. Internet news is a muddy concept because different sites offer news information online, ranging from official sites of traditional media to personal blogs to social media pages. People held differential perceptions of online news credibility. Nontraditional Internet sources such as UseNet and discussion forums were perceived to be less credible (Melican, & Dixon, 2008; Johnson & Kaye, 1998). Third, findings on media credibility from North America does not necessarily replicate elsewhere in the world. Studies from other countries might point to a different pattern. For instance, the Korean public perceives traditional news media as more credible than online news (Park, 2005).

Little research on Internet news credibility has been conducted in China so far, not to mention research on Weibo, the Chinese equivalent of Twitter. The popularity of
Weibo in China deserves scholarly attention for several reasons. First, the number of Weibo users has increased exponentially since its inception in 2009. The sheer number of people using the tool makes it an important social force to be reckoned with. Second, functionally, Weibo becomes an information dissemination platform that could be used for muckraking, grassroots opinion expression, and mobilization. This distinguishes it sharply from the traditional news media outlets where a strict gatekeeping process exists.

Traditional media content is severely constrained by the Chinese government (Zhao, 1998). Although the marketization reform of the 1990s varied Party propaganda (Lee, He, & Huang, 2006), politically sensitive issues receive the toughest treatment at all times. Because political pluralism continues to be resisted by those in power (Goldstein, 1995), the fundamental role of mass media in China remains the consolidation of Party leadership (Brady, 2008) through running a “Party Publicity Inc.” (He, 2000). The question then is, when the traditional news media in China is more severely controlled than online outlets, will people trust the unofficial online information more?

Tsfati (2003) argued that media trust, individual’s perception and evaluation of news media, could be considered a form of media effects. So, what are the potential media effects of new media platforms such as Weibo in China? Will the media credibility perception of people who frequently use the Internet, and Weibo, be different from others? A definitive answer to the questions will be hard to arrive at without empirical evidence. On the one hand, it is true that when information is controlled, people tend to seek alternative information. When Meyen and Schwer studied communication in Eastern Germany, they found that tuning in to Western broadcast stations was common for East Germans (Meyen & Schwer, 2007). Foreign radio programs became an important source of information (Sola Pool, 1973). On the other hand, the spread of unofficial information facilitates misinformation. As Flanagin and Metzger (2000, p. 516) pointed out that because the Internet is “designed not to be controlled,” information online tends to have problems with accuracy (see also Johnson & Kaye, 2000). With these concerns, we propose the following questions.
Research Question 1: How do people rate the different media outlets in terms of their credibility: television, newspapers, radio, magazines and Internet?

Research Question 2: What are the demographic antecedents of media credibility ratings?

Research Question 3: Does the use of micro-blogging services (i.e., Weibo) lead to lower levels of trust in traditional media?

Method

Data

The data for the study came from a RDD (random digit dialing) telephone survey conducted in Shenzhen, a metropolitan city in Southern coastal China bordering Hong Kong. As an immigrant city, Shenzhen is the first Special Economic Zone at the forefront of the Chinese economic reform. The survey was fielded from June 3 to June 7, 2012. A total of 611 completed interviews were conducted. Each interview lasted about 10 minutes on average. The response rate for the survey was 36.7% (AAPOR RR3). The margin of error for a random sample of this size is ± 4%.

News Media Credibility. This study employed two types of media credibility measures: generic measures and context-specific measures. When measured with a single item, media credibility is most consistently operationalized as believability (Flanagin & Metzger, 2003). Respondents were first asked to rate the credibility of television, newspapers, radio, magazines and the Internet on a 0-100 scale. Higher rating scores indicate higher levels of credibility (M=74.81, SD=16.67).

For context-specific media credibility measures, we chose one local news event that received heavy news coverage and discussion both on traditional media and in cyberspace prior to our survey. On May 26 2012, a traffic accident claimed three lives in Shenzhen City. Two vehicles participated in street racing and one collided with a taxi, but the driver who caused the accident left the scene. The hit-and-run driver turned himself in several hours later. The cynical public nevertheless suspected that the driver identified by the police was just a scapegoat to take the blame. News media took different approaches to covering the story. Some aligned themselves closely with the
official information released by the police authorities while others held a more suspicious attitude. The respondents were asked to rate the credibility of information carried by different news outlets on a 0-100 scale: a) concerning the “street racing car accident,” how credible is the information provided by local traditional media, such as television and newspapers, and b) concerning the “street racing car accident,” how credible is the information posted on Weibo (the Chinese clone of Twitter)?

**Weibo use.** Three items were used to capture different aspects of Weibo use. The first item measures the frequency of Weibo use. Respondents were asked to estimate the number of days in the past week they used Weibo (M=2.96, SD=2.73). The second item measures the frequency of commenting behavior on a 5-point Likert scale, where 1 indicates never and 5 indicates often (M=2.01, SD=.94). The last item measures the frequency of retweeting behavior on a 5-point scale (M=2.52, SD=1.01).

**Demographic variables.** Four demographic control variables were included in the analysis. Gender is a dichotomy with female coded as higher (1=male, 2=female). The sample contains 52.6 percent of males. Age is a continuous variable and the average age of our sample is 35.15 (S.D. =14.26). Education attainment is an interval variable with six categories ranging from “primary school or below” to “post-graduate degree.” (Median=3, high school) The last control variable is Communist Party membership (0=not a member, 1=member). About 16.9 percent of our respondents were party members.

**Results**

The first research question explores the levels of trust people had in different types of news platforms. Table 1 shows the average rating scores for different outlets. For the generic believability measures, television (M=74.81) and newspapers (M=71.27) enjoyed the highest levels of credibility. Radio (M=65.20) and magazine (M=58.22) received relatively lower scores. The average credibility score for Internet news was 62.26. A series of paired sample t-tests indicated that Internet news credibility was significantly higher than magazine credibility (t=5.66, p<.001) but significantly lower than radio (t=-2.01, p<.05), newspaper (t=-9.86, p<.001), and television’s credibility scores (t=-12.91, p<.001). As for the two measures specific to the street racing accident
news, traditional media still outscored Weibo (69.18 vs. 59.50, t=-5.27, p<.001). As was shown in Table 2, generic measures of news credibility were all positively correlated. People who gave higher score to one medium tend to give higher scores to other platforms.

Table 1

\textit{News Credibility Scores}

\begin{tabular}{lccc}
\hline
 & Mean (0-100) & S.D. & N  \\
\hline
\textit{Generic measures} & & &  \\
Television News & 74.81 & 16.69 & 573  \\
Newspapers & 71.27 & 15.93 & 563  \\
Radio & 65.20 & 18.05 & 436  \\
Magazine & 58.22 & 16.74 & 464  \\
Internet & 62.26 & 18.42 & 546  \\
\hline
\textit{Shenzhen street-racing accident measures} & & &  \\
Traditional news media & 69.18 & 19.95 & 486  \\
Weibo & 59.50 & 20.31 & 345  \\
\hline
\end{tabular}

Table 2

\textit{Correlation Matrix of News Credibility Scores}

\begin{tabular}{lcccc}
\hline
 & TV & NPs & Radio & Magazine  \\
\hline
TV & -- & & &  \\
NPs & .588*** & -- & &  \\
Radio & .455*** & .564*** & -- &  \\
Magazine & .318*** & .484*** & .570*** & --  \\
Internet & .173*** & .264*** & .325*** & .492***  \\
\hline
\end{tabular}
Research Questions 2 and 3 concern the predictors of the credibility of traditional media, the Internet, and Weibo specifically. A host of regression analyses were performed with two blocks of predictors. The first block contained six variables. Four of them were basic demographics: gender, age, education, and Party membership. Since age and education might have a non-linear relationship with trust, squared terms were added to the model to check for quadratic relationships. The second block contained four variables characterizing different aspects of Weibo use: use frequency, experience, frequency of commenting, and frequency of retweeting (or forwarding).

Foremost, as is shown in Table 3, gender seems to be a positive predictor for a few credibility measures. Females were more likely to give higher credibility scores to television news and magazine news. In terms of age, age tends to be negatively related to newspaper credibility and magazine credibility. Older people tend to hold a less trustful attitude toward these news outlets. For magazines, the data also suggested a significant positive squared age term. Education was not a significant predictor for media credibility other than the Internet. People with moderate levels of education trust news on the Internet more, whereas people who are at the two extremes of the education scale tend to have a less trusting attitude. Party membership, surprisingly, was not related to any credibility measures. People with Party membership and ordinary citizens shared the same levels of trust (or distrust) toward different news media. Overall, Weibo use was not a significant predictor of generic media credibility scores. Entering four Weibo related measures into the equations did not significantly increase the portion of variances explained by the predictors.
Table 3

Predicting News Credibility

<table>
<thead>
<tr>
<th></th>
<th>Television News (N=501)</th>
<th>Newspapers (N=496)</th>
<th>Radio (N=385)</th>
<th>Magazine (N=407)</th>
<th>Internet (N=479)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beta</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.124**</td>
<td>.055</td>
<td>.052</td>
<td>.148**</td>
<td>.090</td>
</tr>
<tr>
<td>Age</td>
<td>.188</td>
<td>-.559**</td>
<td>.225</td>
<td>-.558*</td>
<td>-.425</td>
</tr>
<tr>
<td>Education</td>
<td>.210</td>
<td>.200</td>
<td>.055</td>
<td>-.096</td>
<td>.427</td>
</tr>
<tr>
<td>Party Member</td>
<td>.087</td>
<td>.058</td>
<td>.063</td>
<td>-.025</td>
<td>-.002</td>
</tr>
<tr>
<td>Age Squared</td>
<td>-.251</td>
<td>.402#</td>
<td>-.279</td>
<td>.554*</td>
<td>.284</td>
</tr>
<tr>
<td>Edu Squared</td>
<td>-.404</td>
<td>-.265</td>
<td>-.193</td>
<td>.078</td>
<td>-.466*</td>
</tr>
<tr>
<td>∆R²</td>
<td>4.5***</td>
<td>2.7**</td>
<td>2.0</td>
<td>4.2**</td>
<td>5.1***</td>
</tr>
<tr>
<td>Weibo Frequency</td>
<td>-.101</td>
<td>-.142*</td>
<td>-.134</td>
<td>-.058</td>
<td>.056</td>
</tr>
<tr>
<td>Weibo Experience</td>
<td>.061</td>
<td>.125*</td>
<td>.042</td>
<td>.086</td>
<td>.014</td>
</tr>
<tr>
<td>Weibo Comment</td>
<td>.021</td>
<td>.034</td>
<td>.179</td>
<td>.167</td>
<td>-.001</td>
</tr>
<tr>
<td>Weibo Retweet</td>
<td>-.042</td>
<td>-.030</td>
<td>-.015</td>
<td>-.079</td>
<td>-.010</td>
</tr>
<tr>
<td>∆R²</td>
<td>0</td>
<td>0.8#</td>
<td>1.6</td>
<td>1.7</td>
<td>0.2</td>
</tr>
<tr>
<td>Total R²</td>
<td>4.5**</td>
<td>3.5*</td>
<td>3.6</td>
<td>5.9*</td>
<td>5.3**</td>
</tr>
</tbody>
</table>

* p<.05 ** p<.01 *** p<.001

Table 4 shows results from regression analyses predicting two context-specific credibility measures. First, we did not find any significant demographic predictors. Second, similar to the findings from predicting generic credibility measures, the credibility score of traditional news media was not associated with Weibo use. However, the credibility of Weibo information was found to be closely related with
Weibo use. More specifically, Weibo credibility was negatively related to commenting frequency (Beta=-.277, p<.01) but positively related to Weibo retweeting frequency (Beta=.319, p<.01). In other words, those who trust Weibo tended to disseminate messages they found on Weibo more frequently, but those who distrust Weibo tended to leave comments on Weibo more frequently.

Table 4

*Predicting News Credibility: Shenzhen Street-Racing Accident*

<table>
<thead>
<tr>
<th></th>
<th>Traditional News (N=444)</th>
<th>Weibo (N=312)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>Beta</td>
</tr>
<tr>
<td>Gender</td>
<td>.025</td>
<td>.020</td>
</tr>
<tr>
<td>Age</td>
<td>.053</td>
<td>.246</td>
</tr>
<tr>
<td>Education</td>
<td>-.294</td>
<td>.016</td>
</tr>
<tr>
<td>Party Member</td>
<td>.010</td>
<td>.040</td>
</tr>
<tr>
<td>Age Squared</td>
<td>-.043</td>
<td>-.372</td>
</tr>
<tr>
<td>Edu Squared</td>
<td>.239</td>
<td>-.154</td>
</tr>
<tr>
<td>(\Delta R^2)</td>
<td>0.6</td>
<td>4.0*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Traditional News (N=444)</th>
<th>Weibo (N=312)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>Beta</td>
</tr>
<tr>
<td>Weibo Frequency</td>
<td>.019</td>
<td>.043</td>
</tr>
<tr>
<td>Weibo Experience</td>
<td>.024</td>
<td>.080</td>
</tr>
<tr>
<td>Weibo Comment</td>
<td>-.071</td>
<td>-.277**</td>
</tr>
<tr>
<td>Weibo Retweet</td>
<td>.021</td>
<td>.319**</td>
</tr>
<tr>
<td>(\Delta R^2)</td>
<td>.02</td>
<td>4.5**</td>
</tr>
<tr>
<td>Total (R^2)</td>
<td>.08</td>
<td>8.5*</td>
</tr>
</tbody>
</table>

* p<.05  ** p<.01  *** p<.001
Conclusion

The findings of our study could be summarized as follows. First, generally speaking, people still believe traditional news media more than online sources by a significant margin. Second, demographic influences of media trust seem to be minimal. Only age and gender were related to some credibility measures. Third, the use of Weibo was not related to people’s credibility perception toward other traditional media. But interestingly, patterns of Weibo use had a significant impact on people’s evaluation of Weibo’s credibility. Commenting behavior was negatively related to one’s trust in Weibo while retweeting behavior was positively related to one’s trust in Weibo.

What are the implications of our findings? First, despite the fact that the Internet serves as an alternative information platform to the public, people still place more confidence in the traditional media. We suspect that the flood of misinformation online was the main cause of such a finding. It is true that in China, Weibo is a platform with the potential to expose corruption and government misbehavior, but it is also true that rumors and misinformation were constantly disseminated on Weibo, making people to think twice before taking what they read as true. Second, the differential influences of Weibo use revealed something worth discussing. What makes commenting and retweeting so different? Commenting means opinion expression while retweeting is sharing. It seems that the causal relationship between Weibo use and Weibo credibility goes from trust to use, rather than the reverse. For those who trust in Weibo, they frequently retweet and disseminate information they read; for those who have lower trust in Weibo, they leave more comments but did not retweet as much.

Going back to the fundamental question we raise at the beginning of this study, that is, did new media outlets such as Weibo change people’s evaluation of traditional media? With the current evidence at hand, the answer seems to be “not yet.” However, it does not mean that our assessment will remain true in future. As the ecology of the media system evolves, people’s credibility perception toward media will change accordingly.
References


**Biographical Notes**

**Fei Shen** is assistant professor in the Department of Media and Communication, City University of Hong Kong. His research interests include public opinion, media effects, the sociology of news, data mining, and social movement.

He can be reached at feishen@cityu.edu.hk.

**Hongzhong Zhang** is a professor in the School of Art and Communication at Beijing Normal University. His research interests include media credibility, the behavior of audiences the social capital of social media. He conducted about 50 audience surveys in the past 15 years in China. He received his Ph.D. in mass communication from the School of Journalism at Renmin University in China (2005).

He can be reached at zhanghz9@126.com.

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