

# Examining Weibo posting anxiety among well-educated youth in China: A qualitative approach

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Li Li and Trisha TC Lin

Nanyang Technological University, Singapore

## Abstract

This study extends the application of Social Cognitive Theory (SCT) to investigate the nature of Weibo posting anxiety and its determinants (i.e., micro-blogging self-efficacy, outcome expectations, and prior experience) among well-educated youth in China. Analyzing semi-structured interviews with Chinese Weibo users, this study identified four dimensions of microblogging posting anxiety, including social-, writing-, technology-, and safety-related anxiety. Fear of receiving negative evaluation from offline friends and leaking personal information to unknown/dangerous readers were the main reasons for their Weibo posting anxiety. Prior experiences of obtaining undesirable comments and disappointing feedback were found to create negative outcome expectations of Weibo usage (e.g., deteriorating self-presentation and causing misunderstanding), which may indirectly induce Weibo posting anxiety. However, self-efficacy did not play a significant role in generating anxious reactions towards Weibo posting. Theoretically, this study uses an SCT analytical lens to enhance the understanding of Weibo posting anxiety among Chinese users. Practically, the findings provide insights to services operators and system designers about users' anxiety in using social media like Weibo so as to improve the service and boost the usage. *Note:* An oral presentation of this article was made at the 2014 annual meeting of the Association for Education in Journalism and Mass Communication (AEJMC), Montreal, Canada.

## Keywords

microblogging, posting anxiety, self-efficacy, outcome expectation, prior experience, social cognitive theory

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**People may feel anxious towards Weibo posting if they had unhappy experiences or expected negative outcomes.**

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## Introduction

Microblogging plays an increasingly vital role in users' busy lives. Weibo, the popular microblogging service in China, attracts millions of Chinese netizens to publicly discuss issues from personal experiences to politics and pop stars (Mozur, 2013). According to a recent report from China Internet Network Information Centre (2014), around 280 million people are microblogging users in China. At the end of 2013, one leading microblogging service in China, Sina Weibo, alone has produced over 100 million posts per day, including personal posts, photos and news (Mjceo, 2013). The enormous user participation in Weibo is

reflected in the huge numbers of frequent updates to posts and comments.

Unlike other social networking services (e.g., instant messaging and social network sites), Weibo posting is a type of broadcast personalized social media with low selectivity of readership. By default, Weibo posts are made accessible by the public. The

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### Corresponding author:

Li Li, Wee Kim Wee School of Communication and Information, 31 Nanyang Link, SCI building, Nanyang, Technological University, Singapore 637718. Tel: +65 67906971.  
Email: lili0026@e.ntu.edu.sg.

open structure of Weibo allows users to freely follow strangers without prior permission and visit others' Weibo pages like "lurkers" without leaving any record. Although some privacy setting functions (e.g., "only visible for selected friends" and "only visible to myself") have been added in Weibo since 2013, it is still difficult for users to control their readership due to its inconvenient interface. Previous study suggests that most social media users feel conflicted, uncertain and uncomfortable over their unknown or uncontrollable online audiences (Lenhart, 2005). On the one hand, misjudged or unknown audiences (e.g., parents, employers and future colleagues) may cause serious interpersonal and perhaps professional repercussions in social media (Trevino, 2005). On the other hand, the abuse of personally identifiable information obtained through social media, such as location-based information, may put users at risk (Humphreys, Gill and Krishnamurthy, 2010; Lyon, 2001). Lyon (2001) argues that increasing cases of identity theft or discrimination online make social media users worry increasingly about the safety of their personal data. The openness of the Weibo's privacy settings means that users have to accept some unauthorized, undesirable or even dangerous readers to read their posts and comments. As Weibo has become a popular and influential social media platform for Chinese users, such uncontrollable public attention from readers may induce posting anxiety for cautious users.

A recent study conducted by Fu and Chau (2013) shows that 57% of 30,000 randomly selected Weibo users have no posts in their timelines. Meanwhile, 86.9% of users wrote no original posts and 88.9% did not repost messages from another account over a 7-day period. These results imply that nearly 60% of the micro-bloggers are inactive users and have infrequent intentions to perform Weibo maintenance. According to Bandura's (1986) Social Cognitive Theory (SCT), anxiety plays a crucial role in affecting human actions. In the social media context, Liu (2010) also found that posting anxiety exerts great influence on blog maintenance intentions. As such, it is reasonable to infer that users' intentions to update Weibo messages infrequently may result from their posting anxiety.

Focusing on a popular type of social media in China, this study aims to investigate the nature of Weibo posting anxiety and its determinants, especially among young and well-educated Chinese users. More specifically, based on SCT, this study attempts to examine whether personal traits of inactive Chinese

Weibo users (e.g., self-efficacy, outcome expectation, and prior experience) play a part in their various kinds of posting anxiety. Semi-structured in-depth interviews were conducted with 15 well-educated young Sina Weibo users to achieve this research goal. Although there is a growing body of scholarship centered on studying Weibo usage in the past few years (e.g., Zhang and Pentina, 2012; Huang and Sun, 2014), there is a paucity of research regarding the posting anxiety of Weibo users.

By investigating Weibo posting anxiety in China, this study can fill the gap in previous research and contribute original literature to this research area. In addition, this study is among the first to apply SCT to explain posting anxiety in China. Employing SCT concepts to examining Weibo posting anxiety can enrich our understanding about its nature and origins, while the theoretical application of SCT can also be extended to social media environments in China or other Asian countries. Practically, this study will provide insights into users' experiences in using Weibo to help operators and system designers to improve the service and boost adoption and usage of this platform.

## **Weibo posting anxiety**

Generally, anxiety is thought of as a feeling of fear, worry, and uneasiness. Over the past few decades, numerous academic studies with diverse methodological approaches have defined and measured the concept of anxiety. However, there is little consensus as to exactly what anxiety is. For instance, scholars such as Barlow (2000) define anxiety as a "future-oriented" mood state in which one is ready or prepared to attempt to cope with upcoming negative events, while some positive psychologists describe anxiety as the mental state that results from a difficult challenge for which the subject has insufficient coping skills (Csikszentmihalyi, 1997). From a social cognitive perspective, anxiety is a "joint effect of two separate factors, visceral arousal and cognitive self-labelling of the internal state as anxiety" (Bandura, 1986: 191). In the *Handbook of Emotions*, Ohman (2000) further concludes that anxiety is an appropriate cognitive and emotional response to a perceived threat, which generally occurs in situations only perceived as uncontrollable or unavoidable. This study mainly follows a social cognitive perspective to define Weibo posting anxiety, which refers to users' social and cognitive reaction to a perceived uncontrollable or unavoidable threat in the Weibo posting process.

Prior studies identified various types of anxiety which might be associated with Weibo posting behavior. The first and most common type is social-related anxiety, which occurs when individuals are aware of others who are watching and evaluating their actions (Barlow, 2002). People will experience an exaggerated fear when they become the focus of attention and are being evaluated by others (Beck et al., 1985). From a hyperpersonal perspective, individuals are likely to diminish their online social anxiety when they can engage in personal editing and selectively present themselves without the influence of nonverbal cues (Walther, 1996). Social anxiety often exists among computer mediated communication (CMC) users in huge networks or communities (e.g., social networks) (Mazalin and Moore, 2004; Weiss, 2013). As Weibo is an open social media platform, all information posted on it can be observed and evaluated by other users. Hence, social-related anxiety is likely to be a main source of Weibo posting anxiety.

The second salient type is writing-related anxiety (also termed as “writing apprehension”), which was originally defined as “a situation and subject-specific individual difference concerned with people’s general tendency to approach or avoid writing” (Daly, 1978: 11). That is, writing apprehension is a kind of anxiety related to writing situations, creating a tendency to avoid such situations, frustration, and low productivity while writing (Mabrito, 1991). Daly (1978) further argues that people experience writing-related anxiety when they perceive that others could evaluate their writing. The inducement of writing anxiety is the internal censor of a writer who has received undesirable comments from others (Boice, 1993). In the context of CMC, writing-related anxiety influences the use of communication technologies (e.g., Scott and Rockwell, 1997; McDowell, 1998; Liu, 2010). As a new form of text-based communication in China, Weibo users may experience writing-related anxiety regarding writing situations and evaluation by others when they post or update information.

Another type of anxiety is technology-related anxiety, which refers to individual’s fear of considering or actually using any technology now or in the future (Cambre and Cook, 1985; Al-Khaldi and Al-Jabri, 1998; Scott and Timmerman, 2005). People with technology-related anxiety often choose not to use those technologies when given the option (Okebukola et al., 1992; Scott and Timmerman, 2005). Computers and mobile phones are the devices used for Weibo posting. If individuals have fear of using such devices

or the Weibo interface, they are likely to avoid using this new medium. Hence, technology-related anxiety may also be associated with Weibo posting.

Government censorship may provide another potential source of anxiety in the context of the Chinese Internet. As growing discontent with the negative consequences of economic growth and official corruption is posted on Weibo, the Chinese government has employed strict microblogging regulations to maintain control of society in recent years (Sullivan, 2014). At present, the majority of microblogging services in China are ‘government-regulated commercial spaces’ (i.e., privately owned platforms under government regulation) (Jiang, 2010). These service operators implement comprehensive and proactive censorship on users’ posts in response to government policy (Sullivan, 2014). Some young bloggers believe that Chinese Internet regulation might bring their family and career into trouble if they write about the government (Liu, 2010). Likewise, for young Weibo users, strict government censorship on posting activity may be a new source of anxiety related to their Weibo posting practice.

### **Social Cognitive Theory concepts: self-efficacy, expected outcomes and prior experiences**

Social Cognitive Theory (SCT), which is extensively employed in psychology and communication studies, is utilized as the theoretical framework for this study. It provides a comprehensive theoretical base for understanding human behaviour, environment, and social interaction (Bandura, 1986). According to SCT, individual behavior is modelled after thinking through the consequences of behaviors, learning from observing others, anticipating outcomes of behaviors, and evaluating anticipated outcomes (Bandura, 1986). Self-efficacy and outcome expectation are two important cognitive processes that are closely related to a person’s selection of activities to fulfil their goals (Bandura, 1997). Self-efficacy is defined as an individual’s judgment of his or her ability to use a technology to organize and execute a particular task, whereas outcome expectation refers to judgment of the possible consequences of an action (Bandura, 1986; Compeau and Higgins, 1995). According to Bandura (1986), expected outcomes are categorized into six types of incentives: activity incentive (e.g., entertaining or boredom-relieving activities); novel incentive (e.g., obtaining pleasing or novel

sensations); social incentive (e.g., obtaining approval from others); monetary incentive; status incentive and self-reactive incentive (e.g., obtaining satisfaction when personal action meets a desired standard). Together with self-efficacy beliefs, these incentives motivate human behaviors (Bandura, 1997).

Bandura further argued that self-efficacy and negative outcome expectations predict how well people cope with threats and how much anxiety people experience (Bandura, 1986; Bandura et al., 1982). Users' low self-efficacy and negative outcome expectations tended to produce more anxious reactions (Bandura, 1997). Liu (2010) found that self-efficacy and negative outcome expectation are two determinants of blogger's anxiety experiences. Users' behavior and emotions are also influenced by prior experience (Bandura, 1997). Individuals feel very anxious when they have had bad experiences, perceive themselves to be inefficacious and envision negative outcomes (Bandura, 1986). What people have experienced in the past shapes their current expectations about technological use significantly (LaRose and Eastin, 2004). Lee and Ma (2011) found that news sharing behavior in social media was affected by prior experiences. Hence, negative prior experiences of using Weibo may increase Weibo users' posting anxiety.

Over the past 10 years, many researchers have employed SCT to investigate effects on the usage of computers and Internet communication (e.g., Bandura, 2001; Brown et al., 2004; LaRose and Eastin, 2004). This study follows SCT perspectives and employs three main concepts from SCT – self-efficacy, outcome expectation and prior experience – to examine Weibo posting anxiety among young and well-educated Chinese users.

## Method

The objective of the current study is to examine the nature of Weibo posting anxiety among well-educated Chinese youths and its determinants (e.g., self-efficacy, outcome expectations and prior experience). As existing researches have seldom investigated issues related to social media anxiety, especially in the Chinese context, this study utilizes an in-depth interview method to achieve this goal.

### Sampling

Sina Weibo Data Center (2013) revealed that over 70% Weibo users have a bachelor degree or above. According to an extensive survey conducted by *China*

*Youth Daily* (2007), higher-educated individuals are more likely to be anxious. Young and well-educated Chinese Weibo users who had experienced posting anxiety were therefore considered as the target participants for this study. Convenience and purposeful sampling were employed to select 15 participants with the following characteristics: (1) aged 18 to 30; (2) with a bachelor degree or above; (3) have experienced anxiety when posting or thinking of posting something on their Weibo accounts. One question "Have you experienced anxiety when you are posting or think of posting something in Weibo?" was asked to filter the potential participants. The potential interviewees were recruited at first through the researchers' personal contact and then by requesting the participants to invite their friends who fitted the criteria to participate the study.

With regards to the sample size, this study used the criterion of saturation as a guiding principle during the data collection. Saturation refers to the circumstance when more data no longer reveals new properties of core theoretical categories, nor sheds any further light on the issue under investigation (Strauss and Corbin, 1998). In the present study, saturation was defined as a situation during data collection and analysis when, in comparing two successive interviews, no new themes were discovered in the second interview when compared with the previous interview. The data collection stopped when no additional valuable understandings were generated. The researchers determined that saturation had been arrived at when 15 interviews satisfied this principle.

### Interview procedure

The participants were recruited from Sina Weibo, the leading micro-blogging platform in China. Potential interviewees were initially screened by the above criteria and were contacted first via Sina Weibo to describe the study and make an appointment for an online interview. In-depth interviews were conducted through Skype from October 2013 to February 2014. Semi-structured and open-ended questions, which could provide great flexibility with the interview process, were developed to examine relevant theoretical concepts about users' posting experiences and anxiety. The interview guide (see Appendix 1) covered four key areas: (1) Weibo posting anxiety; (2) Weibo self-efficacy; (3) negative outcome expectation; (4) negative prior experience. During the interview

process, interviewers varied the order of the questions, asked follow-up questions, and asked for clarifications for some answers. Since all informants felt more comfortable with Chinese, interviews were conducted in Chinese.

Before the interviews were conducted, the research obtained the approval of the Institutional Review Board (IRB) of the Nanyang Technological University. The researchers had to obtain the interviewees' prior consent before the interviews, each of which lasted around 30 minutes and was recorded for data analysis.

### *Data analysis*

For data analysis, the interview situation was first analyzed and interpreted based on the interviewer's field notes and the interview process. Audio recordings were transcribed word-for-word and then coded line-by-line using Nvivo software. Only words and phrases which were relevant for answering the research questions were coded. Emerging themes were generated, and organized to construct the study's results. Lastly, the results of the interviews were further discussed by the researchers in reference to relevant theoretical concepts. To keep interviewees' identities confidential, pseudonyms were used for all respondents in the results section.

## **Results**

On average, interviewees were aged 24.9, ranging from 22 to 27 years old. All of them were single, and had obtained a bachelor degree or above (9 of them had a master degree). They had used the Weibo for around 3 years. Their main reasons for using Weibo included informational and social purposes. Some respondents considered Weibo as a digital space for entertaining, life records, or emotional release.

### *Weibo posting anxiety beliefs*

Four types of Weibo posting anxiety among young and higher-educated Chinese youth have been identified in this study, including social, writing, technology and safety-related anxiety.

The most frequently mentioned Weibo posting anxiety was social-related anxiety, which includes users' fear of receiving negative evaluation, no feedback and negative impact on readers. Kate, a master's student, frequently has feelings of anxiety when she posts "something that is or could be controversial (e.g., government policy and gay rights)" because she

doesn't want to be seen as an extreme person in the eyes of others. Sometimes, she was afraid that her thoughts were too naïve and people might laugh at her. David and Winter, two doctoral students, both felt anxious when they posted or reposted personal inner feelings on Weibo because they were afraid of being considered as being sentimental or pretentious. Winter further indicated that

"My Weibo performance sometime might influence my real-life friends' judgment and impression on me because I think most of my readers are those friends I know very well in my life. Therefore, I am very cautious when I post my personal feelings or experiences on Weibo."

Three interviewees said that what they mostly worried about toward Weibo posting was receiving no feedback or no comment from readers. Jason and Kevin both expected to get feedback from their friends when posting something on Weibo. "The main reason why I use Weibo is to interact with my friends," said Jason. If no feedback came in, they felt extremely disappointed, as it seemed that no one cared about them. Fear of causing negative impact on readers is another social-related anxiety related to Weibo posting. Coco, a former English teacher in Beijing New Oriental School, stated that

"Usually I intended to post positive messages or passed the 'positive energy' on Weibo as some of my readers are my previous students. And, I seldom post information on Weibo when I was in a bad mood or in trouble as I worried that my negative emotion would influence my students."

Writing and technology use provided additional sources of Weibo posting anxiety but only a small proportion of interviewees mentioned these. Fancy, who is a doctoral student in chemical engineering, said that face-to-face verbal communication was easier for her because she worried that written words could not fully and accurately express her thoughts. Hence, she seldom posted her feelings on Weibo. As for Jason, posting on Weibo also induced technology-related anxiety when he was often afraid that what he elaborately wrote would disappear due to technical problems in the process of posting.

Interviewees also suffered safety anxiety when posting messages on Weibo. The interviewees felt concerned most about the leakage of their personal posts to unknown readers. David stated that

“The search engine is so powerful these days. Everyone, not just my friends, can find me out online and read my Weibo posts. More importantly, if I commented on controversial issues, netizens might locate me or hurt me easily by conducting human flesh search. This is so scary!”

Even Kevin and Janet, who seldom posted personal information on Weibo, still worried “what if someone inferred my other information based on my posts?” Janet said that “people may easily infer my company and occupation from the information I posts, or even found out my current location through recent updated photos. “ Meanwhile, Nancy, a civil servant, said that “it is acceptable if only my name or personal photos are leaked out. The most worrying thing is my job identity, ID or bank account gets stolen by dangerous readers. In such cases, my job would be affected and I might lose money.”

### *Self-efficacy*

Most of the interviewees thought that Weibo posting did not require any special skill, because it was similar to other social media in use. “Thanks to Weibo’s user friendly design with low learning barriers, everyone can use it easily and no need to equip with particular skills,” said Coco who thought only business Weibo needed special skills. However, some still felt uneasy about Weibo posting. The interviews showed various skills associated with self-efficacy beliefs related to Weibo posting, including skills in using new media technology, writing and social networking.

The capabilities of using new media technology and writing on Weibo were frequently mentioned. With respect to the skills for use of new media technologies, four interviewees stated that computer and Internet literacy are essential for Weibo posting. Coco and Nancy also emphasized the significance of being able to use smartphones, as “mobile phone or Smartphone is gradually becoming a portable multimedia computer.”

Two participants believed that special writing skills were required to produce high quality posts. Winter, who has more than 400 followers, mentioned that “it was crucial to master the latest grassroots language, such as the new words particularly created on Weibo, especially for those who intended to attract audiences.” Another interviewee stated that

“Everything we can post on Weibo was limited to 140 words. It just likes writing the news leads, which is the

hardest but most important part in news reporting. In some respects, our Weibo users are just like news reporters, who need to equip with certain media literacy. If we intend to create elaborate posts, practices and paying attention to details are necessary.”

Social networking skills were also identified as important for Weibo users from interview data. According to Jack, Weibo serves as an online social networking platform in China:

“If someone had used other SNSs before, it would be easy for them to understand the function and usage of Weibo. However, if someone has no prior online social networking experiences, using Weibo is difficult.”

### *Negative outcome expectations*

In order to systematically present the interview results regarding negative outcome expectations of Weibo, this study employed Bandura’s (1986) typologies for outcome expectations. The interview data shows three types of expected negative outcomes of using Weibo as identified by Bandura (1986), including activity outcomes, social outcomes, and self-reactive outcomes. We also identified two other negative outcomes associated with safety threats and psychical health.

With regards to activity outcomes, most respondents thought that Weibo posting could be addictive, as the entertaining or boredom-relieving activities on Weibo “would interfere the normal work and life and waste a lot of time.” Two respondents stated that Weibo posting would create information anxiety in them; as Janet said

“I often uncontrollably logged into my Weibo account again and again to check whether others replied or commented my posts after I posted something. In the long run, it would affect living quality and lead to the mental disorder.”

Jack mentioned that he might be misled or homogenized by the mainstream opinion towards some social issues if he used Weibo very frequently:

“Others’ comments or opinions on certain topics would influence my own judgments. My own original thought of certain topics might be gradually homogenized to the majorities’ if I belong to the minority. It would be fine if their perspectives were correct. If their thoughts were inaccurate, it would be very dangerous. I would be

misled by those wrongly views and then homogenized to a person the same as them.”

Social outcomes were another widely acknowledged concern among these young and well-educated Weibo users. Six interviewees mentioned their uneasy feelings that some posts might destroy their positive self-presentation. Nancy, who considered Weibo as a self-presentation platform, stated “what you posted on your Weibo account present what kind of person you are, which directly influence readers’ judgment on you.” “I will be like a chatterbox in others’ eyes if I always babble about every little thing in my life on Weibo,” Winter said. Additionally, misunderstanding and neglect of offline social relationships were negative social outcomes to posting Weibo messages. Some even thought that Weibo posting would bring interpersonal tensions in their daily life or work. “If I unintentionally post my personal thoughts towards a certain issue on Weibo, my friends will consider it as I embarrassed them when they hold different standpoints,” Winter said. Meanwhile, she stated that

“My off-line social relationship would be affected if I post too much or immerse myself on Weibo. Everyone has equally 24-hours a day. The more I spent on Weibo posting, the less I left for my off-line social life. From this perspective, it would cause the social distraction for me.”

Self-reactive outcomes, the last outcome expectation defined by Bandura’s typology, were found in Weibo postings. As Winter mentioned,

“When I saw my friends travelling the world and enjoying parties, I would started to question my choice to pursue this PhD degree because, compare with them, my life is so boring and full of endless work.”

Moreover, Jessie, who expected a new outcome related to negative self-reactive outcomes, said that

“when you develop a habit of posting your life on Weibo, you will gradually change to a person who always needs other’s validation as you always expect readers’ feedback. It is not good in the long term and will lower the life satisfaction.”

Apart from the above outcomes categorized by Bandura (1986), seven interviewees perceived another negative outcome related to privacy safety. David, a medical intern, worried that the “the openness of

Weibo” might bring unexpected influence on his work and family:

“Everyone can find me out through the powerful search engine online. I could be easily located and attacked if I posted job-related messages on Weibo, especially at this time when physician-patient relationship is extremely tense in China.”

Coco shared another outcome example associated with privacy concern caused by unverified civil participation and ‘human flesh search’, which refers to the practice of online searching for people or ‘human hunting’ by the Chinese media:

“At present, the general public pays increasing attention to the private use of government vehicles. On one hand, it is really a great progress for civil participation. However, improper or irresponsible supervision sometimes will bring about serious problems. If they take a picture of your car parking outside a shopping mall during working hours, they will post this picture on Weibo and criticize you without checking whether you are parking for official business or not. More scarily, they would do human flesh search on you. All your family and work information can be found out and exposed by netizens.”

Physical health was the last negative outcome which concerned interviewees. Six believed that Weibo posting would lead to neck-shoulder pain and harm their vision if they were posting or reading posts too much through their laptops or mobile phones.

### *Prior negative experience*

Based on the interview data, two types of prior negative experiences, undesirable comments and disappointing feelings are found related to Weibo posting.

Undesirable comments received were the most frequent negative experience of Weibo posting. Six interviewees had received negative comments under their posts out of the blue. Kate, whose post received an unexpectedly unhappy response from her friend, described:

“I once commented on my friend’s movie post on Weibo to show my support but the result turned out to be totally different from my anticipation. She was angry with me as she felt that my comment lowered artistic flavor of her post . . . Tell the truth, this unhappy posting experience made me depressed for a long time.”

More horribly, two respondents have even been attacked by strangers because of their comments on some controversial issues like political policies or scandals. For instance, Jason, a big fan of Zhang Ziyi, posted a supportive comment when this Chinese movie star was involved in a political scandal. However, this personal action made him the target of harassment.

Some interviewees, such as Jack and Janet, also mentioned that posting on Weibo had made them disappointed at times when they had '@ friends' (the @ sign is used to call usernames in Weibo. '@user' is a link to the Weibo profile of 'user') in posts but did not get any response from them. Jack said

“when I @ someone, I want him/her to read this post and reply me. If he/she did not reply me after a long time, I would be worried about the reason of no response. Didn't he read my post or did he intentionally refuse to reply my post? It is a very bad experience.”

## Discussion

### *Weibo posting anxiety*

The findings show that Weibo posting anxiety does exist among young and well-educated Weibo users in China. There are four types of anxiety states: social-related anxiety, writing-related anxiety, technology-related anxiety, and safety-related anxiety.

Regarding social-related anxiety, which is the most commonly identified anxiety form, fears of receiving negative evaluation, no feedback and negative influence emerged from the interviews. This finding is consistent with previous studies, which have shown that social anxiety exists among a large number of SNS users (e.g., Weiss, 2013; Liu, 2010; Mazalin and Moore, 2004). Specifically, receiving negative evaluation, such as being laughed at and misjudged, is the shared fear in Liu's (2010) study on blogging anxiety. More interestingly, our study found that Weibo posting is a special practice in that some social advantages can lead to anxiety feelings. On the one hand, most interviewees considered Weibo as a social networking platform, which can increase interaction among friends and bring social support. On the other hand, inactive users worried about receiving undesirable evaluations from others, whose negative judgements would bring social pressure and misunderstanding. As the most influential and open social media platform in China, Weibo's posts can be easily observed

and evaluated by an enormous number of acquaintances and unknown others. Hence, the interviewees experienced a high degree of social-related anxiety when they knew that their actions were watched and evaluated by a huge audience, which made them become less active and more careful in posting messages on Weibo.

This study identified safety-related anxiety as another main type of anxiety related to Weibo posting. The main reason may be because Weibo is a personal social media with low selectivity of readership. Most social media users in China have become used to the strict privacy settings in other SNS sites, such as Renren and QQzone. When Weibo emerged as a Twitter clone, these SNS users could feel uncomfortable about Weibo's relatively loose control over its readership. As one interviewee mentioned: “sometimes I don't know who read my posts, how they used my information for, and what negative outcome will bring about.” The abuse of personally identifiable information obtained online can raise many privacy concerns and anxieties such as identity theft or even discrimination (Lyon, 2001). Sharing personal social information like location-based information may put users at risk as well (Humphreys and Krishnamurthy, 2010). Due to these potential risks, these Weibo users experience anxiety about their personal safety. Even though Sina Weibo has noted users' concerns and added new functions to protect post privacy since 2013, very few interviewees used the new but inconvenient features. Weibo operators and system designers should pay more serious attention to users' privacy concerns in future so as to encourage more active user participation.

Most participants had no technology- and writing-related anxieties. Since Weibo is similar to other social media in use, it is easy to understand why most of them did not experience technology-related anxieties. Also, they did not experience writing-related anxiety. Although Weibo posting requires a new writing style that is different from that which writing apprehension studies have examined, expressing their thoughts in a concise way is not a big challenge for well-educated young users.

Surprisingly, the interviewees expressed no anxiety towards government censorship when Weibo posting. This may be because they understood the boundaries and never posted or reposted controversial information on Weibo. In other words, those 'self-censored' educated youngsters were aware of the rules of online discussion in China and avoided writing politically



sensitive posts so as not to get into trouble. This internalized censorship led to their having no worries about external censorship. The 15 interviewees happened to feel little interest in online political discussions; however, more and more netizens in China, especially the young and well-educated, have used the Internet to voice their socio-political concerns on Weibo's open platform. To avoid censorship anxiety, netizens have developed new words to avoid the "50 cents army" who are hired by the government to post comments favorable towards party or delete inappropriate online posts in order to sway public opinion on various issues in China. Understanding these new phrases is part of the necessary writing skills for Weibo posting. Once understood, government censorship will not be a source of users' Weibo posting anxiety.

### *Self-efficacy*

The majority of interviewees, who were computer literate and Internet users, did not think Weibo posting required specific skills compared with other social media and regarded Weibo posting as a relatively easy task, which is consistent with Liu's (2010) blog study. However, how to use smartphones was found to be an additional new skill for posting Weibo messages.

The specific self-efficacy beliefs of some interviewees were found to be associated with Weibo posting anxiety. Low self-efficacy in using Weibo and writing posts results in technology- and writing-related Weibo posting anxiety. For instance, Fancy's low self-efficacy in writing made her worry that she "cannot fully and accurately express her feelings on Weibo". Few of those who were confident in their Weibo posting abilities had writing- and technology-related anxieties. These findings accord with prior studies (Liu, 2010; Durndell and Haag, 2002; Bandura, 1997) which showed a correlation between self-efficacy and anxiety. More importantly, this study confirms that the suggestion in Bandura's (1997) Social Cognitive Theory, that low self-efficacy belief produces users' anxious reactions applies in the case of Weibo posting anxiety.

### *Negative outcome expectations*

Various negative outcome expectations were identified in this study and some were found out to be closely associated with Weibo posting anxiety among young and well educated Weibo users. Social

outcomes, activity outcomes and self-reactive outcomes were the main types of outcome expectation towards Weibo posting, which is consistent with previous studies on the anxiety of using new media technologies (Bandura, 1986, 1997; LaRose and Eastin, 2004; Dougherty et al., 2007).

Negative social outcomes were expected most frequently among the interviewees, especially when most of them considered social use as a vital purpose for using Weibo. The more important they thought the Weibo is for socialization, the more likely they would develop an anxious feeling towards it. The second reason perhaps lies in the Chinese collectivist culture, which greatly emphasizes the interdependent relationships among all social beings. Compared with their Western counterparts, Chinese Weibo users feel more worried about losing face and *guanxi* (a general Chinese term used to describe relationships that may result in the exchanges of "connections" that are beneficial for the parties involved) because they are more concerned about others' opinions. Currently, the distinctions between the virtual world and realities are blurry. Similar to other SNSs, Weibo is frequently used to communicate or maintain relationships with people who are also known offline. As most interviewees perceived that their Weibo posting readers were their friends in real life, the feedback or evaluation from them becomes more significant and impactful. As such, their perceived negative social outcome becomes an important factor which may induce anxious feeling towards Weibo posting.

Enjoyable activity outcomes were considered as another possible negative outcome. This result concurred with most existing studies on new media technology. For instance, Liu (2010) found most bloggers thought that they spent too much time on blogging and thus got distracted from their real social life, which is similar to the present study's findings. Meanwhile, increasing numbers of researches investigate the adverse outcomes caused by using new media technologies (Huang, 2014; Park, Hwang, and Huh, 2010; Billieux et al., 2008). Miles and Zhang (2012) explored the negative outcome of tweeting in China and found that many Weibo users showed addictive symptoms, including allowing the platform to become the top priority in life and degrading their work and school performance. Similarly, this study found that some participants uncontrollably logged into their Weibo account repeatedly to check the information.

Negative health influence and negative personal safety threats are two new negative outcomes

mentioned by some interviewees. Most interviewees believed that Weibo posting would harm their vision and health in the long term. This belief may be influenced by increasing evidence of the links between ICT use and health problems. For instance, severe computer usage can lead to neck-shoulder and low back pain, as well as overweight problems due to sitting long hours in a static position (Kautiainen et al., 2005; Hakala et al., 2006). ICT service providers should work with health educators in the future to promote health campaigns related to ICT use, in order to reduce users' negative health expectations and worries.

Some interviewees also expected negative outcomes due to information leaks and cyberbullying due to the openness of the Weibo platform. One interviewee stated that he always worried about his safety because the openness of Weibo enabled dangerous readers to steal his personal information and sometimes attack him. These personal safety expectations induced safety-related anxiety beliefs in some interviewees.

### *Negative prior experience*

Negative prior experiences were found to be closely related to participants' posting anxiety, which is consistent with Bandura's (1997) notion that individuals' actions and emotions are influenced by prior experiences. For instance, Winter's prior experience of receiving negative comments under her posts caused her to worry about receiving negative evaluation. Jason was afraid of getting no feedback because he has received no response from his friends. These negative experiences may not only induce anxiety feelings, but also indirectly discouraged their Weibo posting behaviors; previous studies show that people's current expectations and social media behaviors are based on what they have experienced in the past (LaRose and Eastin, 2004; Lee and Ma, 2011).

### **Conclusion**

Several important theoretical and practical implications can be drawn from this study. First of all, this study contributes to the understanding of users' anxious feelings towards Weibo posting. To the best of the authors' knowledge, little prior research has investigated Weibo posting anxiety; a majority of Weibo studies focused on its adoption, usage patterns, and contents. As one of the first studies to examine the phenomenon of Weibo posting anxiety, this present

study adds a social cognitive perspective to analyze Weibo usage with relevant concepts, such as Weibo self-efficacy, negative outcome expectation, and prior experience. Its findings can enhance the knowledge of Weibo posting anxiety, especially among well-educated youth in China. For instance, the analyses show that people might feel anxious towards Weibo posting if they had unhappy experiences like obtaining undesirable comments or causing misunderstanding. In addition, this study shows that SCT can be used as an analytical framework to explain Weibo posting anxiety in the context of China. We found that outcome expectations and prior experiences predicted how much anxiety people had towards Weibo posting, which is consistent with the proposition of SCT. As such, the applicability of the SCT theory can be extended to the social media environment in China. Future research can apply SCT to examine other psychological effects of social media in a similar context, such as Weibo addiction. In practice, the results of this study provide insights into users' thoughts and anxiety in using Weibo so as to help service operators and interface designers to improve the Weibo system's privacy settings so that posting anxiety can be reduced. Moreover, knowledge about the determinants of Weibo posting anxiety can help professionals and service providers to design programs to avoid Weibo posting anxiety and further boost Weibo adoption and usage.

However, the current study has several limitations. First of all, the sample size was small and only targeted young and well-educated Weibo users, which might restrict generalization ability and weaken the validity of the results. Future research should try to be conducted based on a larger randomized sample and consider extending to examine Weibo posting anxiety among less-educated users in remote places of China. Secondly, instead of one-shot interviews, diversified research methods should be employed to enhance understanding of the phenomenon. For example, longitudinal qualitative research would reveal changes in Weibo posting anxiety over time. Moreover, the causality and directions of causality of Weibo posting anxiety and self-efficacy, negative outcome expectation and prior experience still await examination. Future studies could utilize more diverse methods, such as survey and experiment, to further investigate the directions of influence.

In conclusion, the findings from the present study are especially useful to media scholars and practitioners to assess posting anxiety among young and

well-educated Weibo users in China. Understanding the mechanisms behind Weibo posting anxiety can not only fill the research gap, as few researchers have paid attention to this topic before, but can also help Weibo practitioners to understand their users better and improve their services more effectively.

## Appendix I. Interview guide

### *Weibo posting anxiety*

- How would you feel when you update your Weibo account? Could you elaborate that feeling for me?
- Do you have any concerns regarding your Weibo usage? If yes, what kinds of concerns?
- Have you ever felt anxious when you are posting or think of posting something on Weibo? If yes, what are you anxious about?

### *Weibo self-efficacy*

- If people want to post something on Weibo, do you think they need to have some specific skills? Why or Why not?
- If Weibo posting requires certain skills, what are they? Why these skills are essential for Weibo posting?

### *Negative outcome expectation*

- Do you think Weibo posting will bring about negative outcomes in your life? Why or why not?
- What will be the major disadvantages of your Weibo posts?
- Do you think these expected disadvantages make you feel anxious when you are posting or think of posting on Weibo? Why or Why not?

### *Negative prior experience*

- Do you have any bad/unhappy experiences related to your Weibo posting? If yes, can you share some typical experiences for me?
- Do you think these unhappy experiences make you feel anxious when you are posting or think of posting on Weibo? Why or Why not?

## References

Al-Khaldi MA and Al-Jabri IM (1998) The relationship of attitudes to computer utilization: New evidence from a

- developing nation. *Computers in Human Behavior* 14(1): 23–42.
- Bandura A (1986) *Social Foundations of Thought and Action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura A (1997) *Self-efficacy: The exercise of control*. New York, NY: Freeman.
- Bandura A (2001) Social cognitive theory of mass communication. *Media Psychology* 3(3): 265–299.
- Bandura A, Reese L and Adams NE (1982) Microanalysis of action and fear arousal as a function of differential levels of perceived self-efficacy. *Journal of Personality and Social Psychology Quarterly* 43(1): 5–21.
- Barlow DH (2000) Unraveling the mysteries of anxiety and its disorders from the perspective of emotion theory. *American Psychologist* 55(11): 1247.
- Barlow DH (2002) *Anxiety and its Disorders: The nature and treatment of anxiety and panic*. (2nd ed.) New York: The Guilford Press.
- Beck AT, Emery G and Greenberg RL (1985) *Anxiety Disorders and Phobias: A cognitive perspective*. New York: Basic Books.
- Billieux J, Van der Linden M and Rochat L (2008) The role of impulsivity in actual and problematic use of the mobile phone. *Applied Cognitive Psychology* 22(9): 1195–1210.
- Boice R (1993) Writer's blocks and tacit knowledge. *The Journal of Higher Education* 64(1): 19–54.
- Brown SA, Fuller RM and Vician C (2004) Who's afraid of the virtual world? Anxiety and computer-mediated communication. *Journal of the Association for Information Systems* 5(2): 79–107.
- Cambre MA and Cook D (1985) Computer anxiety: Definition, measurement and correlates. *Journal of Educational Computing Research* 1(1): 37–54.
- China Internet Network Information Centre (2014) *The 33rd Statistical Report on Internet Development in China*. Available at: <http://wenku.baidu.com/link?url=KTS8GgKaBxC8OD1Sv2m9yRdzHqtW7nUaGKdpAWULx4-fHLLPtNXRaGLgRpsidISQ8tcVmBV3ySqDA3-JiAjhz1Q7r-JBO5nnSg7d8d1CofWm> (accessed 7 April 2014)
- China Youth Daily (2007) Higher-educated people are more likely to be anxious. Available at: <http://care.39.net/yjk/0712/18/197098.html> (accessed 7 April 2014)
- Compeau DR and Higgins CA (1995) Application of social cognitive theory to training for computer skills. *Information Systems Research* 6(2): 118–143.
- Csikszentmihalyi M (1997) *Flow and the Psychology of Discovery and Invention*. New York: Harper Perennial.
- Daly JA (1978) Writing apprehension and writing competency. *Journal of Educational Research* 72: 10–14.
- Dougherty CM, Johnston SK and Thompson EA (2007) Reliability and validity of the self-efficacy expectations and outcome expectations after implantable cardioverter

- defibrillator implantation scales. *Applied Nursing Research* 20(3): 116–124.
- Durndell A and Haag Z (2002) Computer self-efficacy, computer anxiety, attitudes towards the internet and reported experience with the internet, by gender, in an east European sample. *Computers in Human Behavior* 18(5): 521–535.
- Fu KW and Chau M (2013) Reality check for the Chinese microblog space: A random sampling approach. *PLoS ONE* 8(3): e58356.
- Hakala PT, Rimpelä AH, Saarni LA and Salminen JJ (2006) Frequent computer-related activities increase the risk of neck–shoulder and low back pain in adolescents. *The European Journal of Public Health* 16(5): 536–541.
- Huang H (2014) Social media addiction, academic performance, and social capital. In: *Social Media Generation in Urban China*. Berlin Heidelberg: Springer, pp. 103–112.
- Huang R and Sun X (2014) Weibo network, information diffusion and implications for collective action in China. *Information, Communication & Society* 17(1): 86–104.
- Humphreys L, Gill P and Krishnamurthy B (2010) How much is too much? Privacy issues on Twitter. In *Conference of International Communication Association*, 22–26 June 2010, Singapore.
- Jiang M (2010) Authoritarian deliberation on Chinese internet. *Electronic Journal of Communication* 20: 3–4.
- Kautiainen S, Koivusilta L, Lintonen T, Virtanen SM and Rimpelä A (2005) Use of information and communication technology and prevalence of overweight and obesity among adolescents. *International Journal of Obesity* 29(8): 925–933.
- LaRose R and Eastin MS (2004) A social cognitive theory of Internet uses and gratifications: Toward a new model of media attendance. *Journal of Broadcasting & Electronic Media* 48(3): 358–377.
- Lee CS and Ma L (2012) News sharing in social media: The effect of gratifications and prior experience. *Computers in Human Behaviour* 28(2): 331–339.
- Lenhart A (2005) *Unstable Texts: An ethnographic look at how bloggers and their audience negotiate self-presentation, authenticity, and norm formation*. Master thesis, Georgetown University, Washington, DC.
- Liu X (2010) Online posting anxiety: Impacts on blogging. *Chinese Journal of Communication* 3(2): 202–222.
- Lyon D (2001) *Surveillance Society: Monitoring in everyday life*. Buckingham: Open University Press.
- Mabrito M (1991) Electronic mail as a vehicle for peer response conversations of high-and low-apprehensive writers. *Written Communication* 8(4): 509–532.
- Mazalin D and Moore S (2004) Internet use, identity development and social anxiety among young adults. *Behavior Change* 21(2): 90–102.
- McDowell E (1998) An investigation of the relationships among technology experiences, communication apprehension, writing apprehension, and computer anxiety. *Journal of Technical Writing and Communication* 28(4): 345–355.
- Miles PC and Zhang LG (2012) China turns to tweeting: Exploring the problematic use of tweeting in China. *International Journal of Business and Social Science* 3(2): 91–94.
- Mjceo (2013) Sina Weibo daily post has reached 100 million. Available at: <http://www.mjceo.com/index/20131127/10000137576.html> (accessed 13 March 2014)
- Mozur P (2013) How many people really use Sina Weibo? Available at: <http://blogs.wsj.com/chinarealtime/2013/03/12/how-many-people-really-use-sina-weibo/> (accessed 7 April 2014)
- Ohman A (2000) Fear and anxiety: Evolutionary, cognitive, and clinical perspectives. *Handbook of Emotions* 2: 573–593.
- Okebukola PA, Sumampouw W and Jegede OJ (1992) The experience factor in computer anxiety and interest. *Journal of Educational Technology Systems* 20(3): 221–229.
- Park N, Hwang Y and Huh E (2010) Exploring problematic mobile phone use: relationship between adolescents' characteristics and mobile phone addiction. In *Conference of International Communication Association*, 22–26 June 2010, Singapore.
- Sina Weibo Data Center (2013) *2013 Weibo User Development Report*. Available at: [http://data.weibo.com/report/detail/report?copy\\_ref=zuYT1rJriAgUC&\\_key=2VmtCYy&](http://data.weibo.com/report/detail/report?copy_ref=zuYT1rJriAgUC&_key=2VmtCYy&) (accessed 7 April 2014)
- Scott CR and Rockwell SC (1997) The effect of communication, writing, and technology apprehension on likelihood to use new communication technologies. *Communication Education* 46(1): 44.
- Scott CR and Timmerman CE (2005) Relating computer, communication, and computer mediated communication apprehensions to new communication technology use in the workplace. *Communication Research* 32(6): 683–725.
- Strauss AL and Corbin JM (1998) *Basics of Qualitative Research Techniques and Procedures for Developing Grounded Theory* (2nd ed.) Thousand Oaks, CA: Sage Publications.
- Sullivan J (2012) A tale of two microblogs in China. *Media, Culture & Society* 34(6): 773–783.
- Sullivan J (2014) China's Weibo: Is faster different? *New Media & Society* 16(1): 24–37.
- Trevino EM (2005) *Blogger motivations: Power, pull, and positive feedback*. Available at: <http://blog.erickamenchen.net/MenchenBlogMotivations.pdf> (accessed 7 April 2014)
- Walther JB (1996) Computer-mediated communication: Impersonal, interpersonal, and hyperpersonal interaction. *Communication Research* 23(1): 3–43.
- Weiss DE (2013) *The Relationship between Internet Social Networking, Social Anxiety, Self Esteem, Narcissism,*

*and Gender among College Students*. ETD Collection for Pace University.

Zhang L and Pentina I (2012) Motivations and usage patterns of Weibo. *Cyberpsychology, Behavior and Social Networking* 15(6): 312–317.

#### **About the authors**

**Li Li** is a PhD Candidate in the Wee Kim Wee School of Communication and Information at Nanyang Technological University, Singapore. Her research interests focus on the uses and impacts of new media technologies, and mobile communication. Contact: Wee Kim Wee School of Communication and Information, Nanyang Technological University, Singapore, 31 Nanyang Link, SCI building,

Nanyang Technological University, Singapore 637718. Tel: +65 67906971 Email: lili0026@e.ntu.edu.sg.

**Trisha TC Lin** (PhD, University of Hawaii, Manoa) is an Assistant Professor in the Wee Kim Wee School of Communication and Information at Nanyang Technological University, Singapore. Her research interests focus on emerging video technologies and social media, telecommunication policy, mobile communication. Contact: Wee Kim Wee School of Communication and Information, Nanyang Technological University, Singapore, 31 Nanyang Link, SCI building, Nanyang Technological University, Singapore 637718. Tel: +65 67905771 Email: trishalin@ntu.edu.sg.