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Article

Combating Disinformation or Reinforcing Cognitive Bias: Effect of Weibo Poster's Location Disclosure

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Abstract
This study conducted a controlled experiment to examine the impact of posters' IP disclosure on the perceptions of Weibo users with different habits and information preferences and explore whether such disclosure facilitates the fight against disinformation or deepens cognitive biases. Results showed that the IP location of the information poster does influence users' judgments of the authenticity of the information and that the consistency between users' long-term residence and poster IP is not important for users to make judgments about the credibility of information. The high level of usage of Weibo also has no effect on users' judgment of the credibility of the information, and this may be related to the small difference in college students' overall use of Weibo. The results also showed that users' perceptions of information's accuracy, logical coherence, absence of bias, alignment with their own views, consistency with the majority opinion, and trustworthiness of its source are all statistically positively correlated with the overall credibility of information.

Keywords
cognitive bias; disinformation; identity disclosure; social media; Weibo

Issue
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1. Introduction

The extensive spread of fake news in social media could negatively impact individuals and society (Shu et al., 2017). The inclusion of users' different identities has caused a mixture of true and false information on social media, exacerbating the complexity of communication contexts and creating a cognitive dilemma for users. Therefore, improving the public's information literacy and judgment skills is increasingly important. Governments and social media platforms have introduced various measures to counter the proliferation of false information.

Weibo is the most prominent Chinese microblogging website and the leading online social media in China, with 582 million monthly active users and 252 million daily active users at the end of the first quarter of 2022 ("Weibo Q1 profit," 2022). Weibo constitutes a techno-cultural assemblage that becomes entangled with various actors during contentious episodes (Poell et al., 2014). Thus, the Chinese government seeks to balance its approach to microblogs, as it harnesses and controls content in the medium (Harwit, 2014). In such a government management philosophy and media environment, in April 2022, Weibo started to publish users' IP locations on their account pages to combat "bad behavior" online ("China's Weibo shows user," 2022). It is now widely practiced on various social media platforms in China.

Cognition is increasingly investigated as an activity constitutively relying on culture, context, and history. An increasingly semiotic perspective is thus needed to integrate and re-assess conceptual frameworks, methodologies, and results mainly focused on the individual and the biological (Paolucci, 2011). Since the information

environment formed by identity labels in different social media (together with external socio-cultural and individual factors) constitutes the user's cognitive context, this study examines the impact of disclosing posters' IP addresses on the perceptions of Weibo users with different habits and information preferences. Specifically, we aim to explore whether such disclosure facilitates the fight against disinformation or contributes to the deepening of cognitive biases.

2. Literature Review

2.1. Fake News on Social Media

Fake news is created with a dishonest intention to mislead (Shu et al., 2017) and overlaps with other information disorders, such as misinformation (false or misleading information) and disinformation (false information that is deliberately spread to deceive; Lazer et al., 2018). The social media ecosystem, which facilitates rapid information sharing and spreading, can enable the spread of fake news. Studies show that social bots, trolls, and algorithm manipulation have become malicious entities specifically designed to propagate fake news on social media. For example, social bots distorted the 2016 US presidential campaign with false information (Howard et al., 2018).

There has been significant scholarly interest in understanding the diverse definitions of fake news, scientific approaches to studying it (Egelhofer & Lecheler, 2019; Lazer et al., 2018; Tandoc et al., 2018), and the detection of fake news on social media from different perspectives (such as data mining, linguistic processing, network analyzing; Conroy et al., 2015; Shu et al., 2017), yet few investigations of the diffusion and cognition of disinformation through different heuristic cues such as ID or IP display. Usually manipulated to conduct computational propaganda to persuade information consumers to accept biased or false beliefs intentionally, some fake news has been created solely to trigger readers' distrust; to impede their ability to differentiate what is true from false (Bessi & Ferrara, 2016). To help mitigate the negative effects caused by fake news, it's critical that we explore whether heuristic cues such as IP make people confused or confirm their existing cognitive biases.

2.2. Perception and Spread of Disinformation on Social Media

Studies have shown that an individual's cognitive abilities, motivated reasoning, political preferences, and ideological biases are important factors in the perception and sharing of fake news (Nyhan & Reifler, 2010; Sharma et al., 2019). Thus, the correction of false information (e.g., fake political news) by the factual presentation of hashtag or location (IP) is not only less conducive to reducing people's misperceptions but also reinforces their cognitive bias, ideological preferences, and partisan beliefs resulting in a "backfire effect," especially among ideological groups and like-minded cultural or political community (Nickerson, 1998; Nyhan & Reifler, 2010).

Most authors agree that disinformation contains deceptive information or deliberately misleading or false elements incorporated within its content or context (Fallis, 2009; Fetzer, 2004). This means that although fake news may be completely fabricated, it can be presented with the correct label or hashtag, giving it a misleading veneer of credibility (Hunt et al., 2020). In addition, fake news may share properties with informative content, such as photos and convincing text, making it seem to have accuracy, truthfulness, and currency (Karlova & Fisher, 2013). The use of labels, geolocations, or hashtags possibly affects how netizens perceive news in terms of accuracy and credibility since users' location is very useful and informative. It matters because perceptions of such identity cues may shape citizens' cognition of news and how they recognize disinformation (Deligiannis et al., 2018). Using the label or identity might drive users to other news sources and contribute to political polarization (Carlson, 2017, p. 179).

Furthermore, the label or identity disclosure against disinformation relates to increasing relativism of facts (Van Aelst et al., 2017). A heuristic identity label as a transparency cue on the message may impact users' perceptions of source credibility, media bias, and trust (Otis, 2022). Social media platforms seek to combat disinformation with identity verification by reducing users' anonymity, providing users' addresses/locations, or verifying identification. Some empirical findings have shown that identity verification, such as an enhanced badge, may, in fact, not debunk fake news, but fuel its proliferation, sharing, and spread (Wang et al., 2018). Label and its function recently emerged hot topic as social media such as Weibo in China started displaying ID or IP. However, whether IP explicitly implies a higher level of endowed credibility or reinforces cognitive bias is still unknown.

A set of information cues, known as heuristic reminders, such as ID, IP, brand name, account label, and amount of likes, can significantly influence credibility evaluations (Iyengar & Han, 2008). ID and IP as identity cues can be defined as indicators that provide netizens with details about the information producer. While identity has been suggested as a remedy for debunking disinformation or misinformation, little empirical research has been conducted into the relationship between these concepts, with previous studies exploring only the effects of information cues on message credibility. This article aims to extend earlier studies by stringent experiments to test whether identity disclosure may impact social media users' perception of a message's source credibility and their cognitive bias.

2.3. Cognitive Engagement and the Perception of Information Credibility

Martinez (2019) used a cognitive framework to explore the effects of cognitive engagement while learning

about misinformation on social media. The cognitive factors which impact the credibility of messages and the detection of disinformation are related to the consistency of the message, its coherency, the credibility of the source, and general acceptability (Kumar & Geethakumari, 2014). For example, attitude-consistent messages are easier to process, making them more appealing as they require less cognitive effort from netizens (Ziemke, 1980). Research on information credibility suggests that it is a message source-level credibility when it relates to information cues. Perceptions of source credibility offer information consumers a way to distinguish between disinformation and truth. Specifically, high source credibility is known to increase message credibility (Homer & Kahle, 1990). However, little is known about how individuals evaluate and assign credibility to information sources with different cognitive engagement.

Although source credibility is one of the most widely tested variables in persuasion research (Petty & Cacioppo, 1986), disinformation research offers few empirical examinations of the social-psychological process underlying individuals and judgments of source credibility in online environments, especially users' attitude homophily and different cognitive factors (Garrett & Stroud, 2014; Kumar & Geethakumari, 2014). Additionally, these studies employ motivated reasoning theory to discern the relationship between perceptions of attitudinal homophily, information credibility, political participation, and party identification (Housholder & LaMarre, 2014). Attitudinal homophily increases source credibility evaluations and subsequent bias among online stakeholders. It suggests that information cues can launch different cognitive engagement and biases in information perception. These findings have been supported by the effect of user comments on perceptions of news bias and credibility (Gearhart et al., 2020).

2.4. Cognitive Bias and Identity Cues

A cognitive bias refers to the systematic deviation from the norm of rationality in judgment, whereby inferences about other people and situations may be drawn in an illogical fashion. People are more likely to accept claims that are coherent with their preexisting beliefs and to seek information confirming their cognition, which can be summarized as echo-chamber effects or motivated/selective information exposure (Garrett, 2009; Wang et al., 2020). A latent or illogical bias may be turned into a confirmation bias when users are provided with some reminders, such as positive or negative cues (Workman, 2018). Some studies have examined whether social media commentary or users' comments reinforced confirmation bias, especially when users read hostile comments and controversial information (Gearhart et al., 2020).

According to the biopsychosocial model of threat and challenge (Blascovich & Mendes, 2000), people are motivated to defend their beliefs, values, ideologies, and opinions (Maio & Olson, 1998); they will avoid exposure to controversial information that disconfirms their prior beliefs or prejudices that support their worldview (Major et al., 2007; Townsend et al., 2010). Perceived prejudice or cognitive bias as a situational demand indicates that the extent to which people are threatened is decided by their cognitive evaluations and their perceptions of danger, uncertainty, or shared beliefs (Townsend et al., 2010).

Social media tends to reinforce already-held beliefs or preexisting cognition (Kahneman & Tversky, 1973). While the studies mentioned above have focused on the credibility perception of users as they perform their information-based activities, few have examined how users' knowledge of geolocation data affects the fight against disinformation. Thus, the following research questions require further exploration:

RQ1: How do users detect disinformation sources when they cognitively engage in IP disclosure?

RQ2: Does IP display or disclosure confirm their biases?

RQ3: How does the user's cognitive engagement affect the information's credibility?

2.5. Hypotheses

Drawing on the research on identity cues, perceptions of information credibility, and cognitive biases described above, we propose the following hypotheses:

H1a: When the poster's IP is displayed as overseas, it will make users judge the credibility of false information as lower than when there is no IP or when the IP is displayed as a domestic city.

H1b: When the poster's IP is displayed as overseas, it will make users judge the credibility of true information as lower than when there is no IP or when the IP is displayed as a domestic city.

H2: Users who have used Weibo for a long time, with high frequency and with skill, are less affected by the poster's IP display when judging the authenticity of the information.

H3: When the IP of the poster is shown to be overseas, there is a stronger correlation between the user's judgment of the accuracy of the information, its logical coherence, its bias, its alignment with their own views, its consistency with the majority opinion, and the trustworthiness of the poster correlates with the user's judgment of the overall credibility of the information.

H4a: Users whose long-term residence differs from the domestic city displayed by the poster's IP judge the information to be more credible.

H4b: Users whose long-term residence differs from the domestic city displayed by the poster's IP are more influenced by the information when they are more concerned about it.

H5a: Users' judgments of the credibility of information with high interest are less influenced by the poster's IP display.

H5b: The higher the user's interest in social and livelihood information, the lower the influence of IP display on the user's judging the credibility of the information.

3. Methodology

3.1. Method and Principles

This study was a controlled experiment following the principles of randomization, control, and blinding. In the randomization principle, a simple random method was used to assign six groups of subjects by generating random results using a random number generator, ensuring that each group of subjects had an equal chance of being assigned to six different groups of experimental materials for testing. Under the control principle, in addition to the different experimental reading materials, the subjects' own influencing factors (such as emotional state, WeChat usage habits, and familiarity with the topic) were controlled. Other external factors (such as reading environment and reading equipment) were kept the same as much as possible during the experiment to ensure that the differences in the results of different groups were caused by reading different experimental materials. To some extent, the subjects' subjective factors (such as psychological effects) were prevented from influencing the results.

3.2. Subjects

In China, internet users aged 10–19 and 20–29 accounted for 13.5% and 17.2% of the total, respectively (China Internet Network Information Center, 2022), with students being the most numerous, accounting for 21.0% (China Internet Network Information Center, 2021). The number of general undergraduate students in schools in 2020 was 32.853 million, higher than other categories of school, such as high schools and secondary vocational education (National Bureau of Statistics of China, 2021), so undergraduate students have a certain representation in China's Internet user group. With the popularity of the mobile internet, a large number of social media, such as Weibo, have sprung up, and the proportion of college students using smartphones is virtually 100% (Nan et al., 2018). Young Chinese internet users experience different senses of belonging by flexibly appropriating the affordances of social media platforms for communication and networking; these senses of belonging play a key role in forming and sustaining their identities and are crucial for their well-being (Fu, 2018). As young people constitute the majority who use Weibo to obtain useful information, interact with others, seek recognition, and pursue leisure (Liu, 2015; Pang, 2018; Zhang & Lin, 2014; Zhang & Pentina, 2012), some researchers have taken college students as the research objects of new media studies.

In this case, the experimental subjects were chosen to be first-year students who had just entered the university. To avoid possible interference from different universities, subjects were recruited only within a single university in Beijing. The students were students from six classes in two different humanities and social science majors at the university. Since the total number of students, the gender ratio, the distribution of high school entrance examination scores, and the distribution of students' hometowns were basically the same in the six classes, and the major courses had not yet been taught, the composition of the experimental subjects within each group could be considered to be consistent in its internal structure. The formal experiments were conducted on 28 and 29 September 2022, and after excluding the samples with missing values and those who dropped out on the spot, a valid sample of 217 was obtained. The gender and place of origin of the subjects are shown in Table 1. To further determine whether there was a significant difference between the six groups of subjects, a sample t-test was performed. The results showed that the sig values of Pearson's

Table 1. Gender and place of origin of each group.

	Gender				Place of Origin				
Group	Male	Percentage	Female	Percentage	Beijing	Percentage	Other Provinces	Percentage	sum
1	6	16.22%	31	83.78%	24	64.86%	13	35.14%	37
2	6	16.22%	31	83.78%	23	62.16%	14	37.84%	37
3	5	13.89%	31	86.11%	25	69.44%	11	30.56%	36
4	5	13.51%	32	86.49%	20	54.05%	17	45.95%	37
5	4	12.12%	29	87.88%	24	72.73%	9	27.27%	33
6	7	18.92%	30	81.08%	22	59.46%	15	40.54%	37

chi-square for gender (X^2 = 8.274, p = 0.219) and place of birth (X^2 = 1.334, p = 0.970) were greater than 0.05, indicating that there was no significant difference between the subjects of the six groups.

3.3. Materials and Procedures

The experimental materials underwent three stages: screening and adaptation, expert evaluation, and manipulation testing.

Firstly, topic screening and content adaptation were carried out. According to the *China Internet Social Mindset Report*, (Fudan Development Institute, 2021) and the *Survey Report on Social Mindset of Chinese Youth Internet Users (2009–2021)* (Fudan Development Institute, 2022), employment and retirement issues are the topics of the greatest and lowest concern, respectively, among young Chinese internet users. Therefore, we used the keywords "employment" and "retirement" to search for relevant posts on Weibo. We selected posts not obvious in terms of source characteristics to avoid the influence of source authority on the subjects' judgment of the authenticity of the information. For each category of employment and retirement, we selected one post of true information and one false.

Secondly, we invited four experts (one journalist, one editor, and two new media researchers) to evaluate the materials. They confirmed that the four selected posts were suitable for the experiments.

Thirdly, we conducted manipulation tests to ensure that the stimuli of the experimental materials were valid. Thirty subjects, five from each of the six groups, completed a pre-test on 22 September 2022. Subjects read two screenshots of Weibo messages from the experimental materials and then completed the questionnaire. The results showed that there were differences between the six groups of questionnaires for the two Weibo messages with high and low-attention levels in terms of accuracy, completeness, unbiasedness, homophily, other's opinion, poster reliability, and believability measured with a 7-point Likert scale (p < 0.05). This indicates that there were significant differences between the six groups of subjects' perceptions of the experimental materials and that the experiment was successfully manipulated.

In the experiment, the moderator introduced the experimental procedure to the subjects and informed them that they would read two Weibo posts and then synthesize various types of information in the posts to answer the questions. The experiment was conducted anonymously, and the subjects first completed the authenticity questionnaire based on the two posts and then the questionnaire on basic information and Weibo usage habits.

3.4. Variables

For the topic, the two variables were employment and retirement; for the subjects, these topics were of deep and low concern, respectively. Each topic consisted of one true post and one fake. For the poster's location, three variables were the US, Beijing, and not showing the location. This resulted in six different experimental materials of 2X3. With the difference between true and fake information, we obtained 2X2X3 statistics of 12 categories, such that we obtained four constructs, including fake information with high-attention (A1), fake information with low-attention (A2), real information with high-attention (B1), and real information with low-attention (B2).

3.5. Design of Questionnaire

We collected experimental data through a questionnaire consisting of three main parts. The first part is the information credibility scale developed by Housholder and LaMarre (2014) and modified with the characteristics of Weibo use. Subjects separately evaluated the authenticity of the two Weibo posts, including their accuracy, logic, bias, alignment with their own views, consistency with the majority opinion, trustworthiness of the poster, and the user's evaluation of the overall credibility of the information (1 = *totally disagree* to 7 = *totally agree*). The second part is the social media activity questionnaire designed by Martinez (2019), combined with modified questions on the characteristics of Weibo use, including duration of use, frequency of use, daily frequency, interest preference, and ability to use. The third part is demographic information statistics, such as gender and usual residence before enrolment.

The contents in the screenshots of Weibo information of six groups of questionnaires mainly consisted of four identical messages, including two employment-related messages (one with false employment data and one with true information involving the reality of private enterprises not paying labor compensation on time for no reason and experts suggesting that students pay to get hired) and two retirement-related messages (one with false information about pension insurance and social service industry, and one with true information about pensioner's experience of life and population aging). The differences between the groups of questionnaires lay in the IP display of the information posters and the attention paid to the topics, as shown in Table 2.

4. Data Analysis

We used SPSS 27.0 to examine reliability and validity. Table 3 shows the four constructs' composite reliabilities, average extracted variance values, and intercorrelations. The composite reliabilities ranged from 0.790 to 0.930, indicating that the measurement items were reliable. The AVE values of A1, A2, B1, and B2 were 0.536, 0.393, 0.550, and 0.658, respectively, most of which were more significant than 0.5, indicating adequate convergent validity. Discriminant validity was assessed by comparing the square root of the AVE for each construct with

Table 2. Screenshot contents of Weibo for each group.

Topic	Group	IP	Fake	Real
Employment	1	None	The employment rate of Chinese college students: in 2015, 91.7%; in 2017, 91.9%; in 2021, 34%; and in 2022, the contracting rate of college students was 23%. Some time ago, it was said that this year is the most difficult in history. Why? The reason is simple: the number of college graduates is very large, even larger than the number of newborns last year! In fact, if you really want to find a job, you can definitely find one in any case since manufacturing workers are in great need nowadays. But for many college students, these jobs may not be their ideal ones. Since the incomes of manufacturing industries are uneven and low, with irregular work and rest, many parents who have been manufacturing workers basically do not want their children to be manufacturing workers.	Now, the bosses of private enterprises will not pay wages to their employees boldly and confidently. I read a piece of news that some experts suggest that in order to solve the difficulties of enterprise funds and college students' employment, we may let college students pay to get hired to get working experiences and help solve the problem of enterprise funds.
	2	Beijing		
	3	America		
Retirement	4	None	With the help of an acquaintance, I found one newly closed company to renew my old-age insurance. No extra documents are needed, and when all are set, I will be able to retire and start to get my pension. Now, none of the nursing homes is reliable; one should be in charge of his or her own pension plan. In the fifties, sixties, and seventies of the last century, the Communist Party of China and the Chinese governments were responsible for establishing nursing homes, and all the costs were covered by all levels of finance and civil affairs departments to serve the people wholeheartedly. Today, the primary aim of the nursing home is to make money, and the government only gives preferential treatment in the relevant policies. In Beijing, if you want to go to the nursing homes founded by the government, you need to be a model worker at least.	The total amount of national pensions is steadily increasing, yet it has yet to make a big difference in the lives of the retired. Trying to live a comfortable retirement life by pension is still very difficult in nature. Moreover, we are now facing a severe problem of population aging, with the number of older people increasing dramatically and the birth rate of the population decreasing. Under the present context, if the two-child policy and three-child policy to stimulate childbirth are not effective, it is estimated that we will enter an aging society in 2030.
	5	Beijing		
	6	America		

the correlations between that construct and all other constructs. The square root AVE values were greater than all of the inter-construct correlations, as shown in Table 3, supporting discriminant validity.

The results revealed that participants' scores for judging the information varied significantly under different IP conditions, with the independent variable being the IP shown in the screenshot on Sina Weibo and dependent variables being the average score of accuracy, completeness, unbiasedness, homophily, other's opinion, poster reliability, and believability of the information seen by participants (1 = *totally disagree* to 7 = *totally agree*).

Table 3. The Cronbach's *α* composite reliabilities, AVE values, and correlations of the constructs.

	Cronbach's *α*	*CR*	AVE	A1	A2	B1	B2
High-attention and fake (A1)	0.864	0.888	0.536	0.732[a]			
Low-attention and fake (A2)	0.773	0.790	0.393	−0.030	0.627[a]		
High-attention and real (B1)	0.887	0.894	0.550	0.429**	−0.194*	0.742[a]	
Low-attention and real (B2)	0.922	0.930	0.658	−0.003	0.316**	−0.111	0.811[a]

Notes: (1) * p < 0.05; ** p < 0.01; *** p < 0.001. [a] = square root of AVE values.

Before running the ANOVA, we checked the assumption of homogeneity of variance by Levene's Test of Equality of Error Variances, and both of the assumptions for fake and real information were met ($p > 0.05$). For fake information, F (2,214) = 3.205, p = 0.043 and for real information, F (2,214) = 6.468, p = 0.002. The scores for judging the believability of fake information are no IP (M = 3.22, SD = 1.08), IP shown as Beijing (M = 3.11, SD = 1.06), and IP shown as US (M = 2.78, SD = 1.12), and the scores for judging the believability of real information are no IP (M = 3.46, SD = 1.53), IP shown as Beijing (M = 3.26, SD = 1.37), and IP shown as US (M = 2.64, SD = 1.143). Post-hoc comparisons revealed that, in cases of false information, the difference between data with no IP and IP shown as US is significant (p = 0.016); in cases of real information, the difference between data with no IP and IP shown as US is significant ($p < 0.01$), and the difference between data with no IP and IP shown as US is also significant (p = 0.011; see Table 4). This proved that H1a and H1b were valid and that participants rated the same information as less credible when the IP was shown as overseas, regardless of whether the information was fake or real.

Using multiple linear regression, this study tested whether participants' use of Weibo affected the effectiveness of different IPs in determining the believability of information. Our independent variables were participants' usage of Weibo with total hours of use, frequency, average daily visits, and operational ability; the dependent variable was the score of the believability of the information seen by participants (1 = *totally disagree* to 7 = *totally agree*). The regression model was insignificant and showed that participants' usage of Weibo was not significant in determining the authenticity of either fake (F = 0.634, p = 0.639, R^2 = 0.012) or real (F = 0.999, p = 0.409, R^2 = 0.019) information. For fake information, total hours of use, frequency, average daily visits, and operability were all negatively correlated with believability judgments. And for real information, most of them were negatively correlated with believability judgments (Table 5). This proved that H2 was invalid and that participants' use of Weibo did not affect their judgments of information believability.

To test the believability with accuracy, logicality, unbiasedness, similarity, other's opinion, and poster's reliability, the independent variables were participants' scores of accuracy, logicality, unbiasedness, similarity, other's opinion, poster's reliability (1 = *totally disagree* to 7 = *totally agree*), and the dependent variable was the score of credibility of the information seen by participants (1 = *totally disagree* to 7 = *totally agree*). The regression models were statistically significant. For high-attention and fake information (A1; F = 29.035, $p < 0.01$, R^2 = 0.628), the strongest Pearson correlation was the poster's reliability (r = 0.711), and the weakest Pearson correlation was completeness (r = 0.360). For low-attention and fake information (A2; F = 32.061, $p < 0.01$, R^2 = 0.658), the strongest Pearson correlation was the poster's reliability (r = 0.763), and the weakest Pearson correlation was unbiasedness (r = 0.302). For high-attention and real information (B1; F = 31.528, $p < 0.01$, R^2 = 0.647), the strongest Pearson Correlation was the poster's reliability (r = 0.748), and the weakest Pearson correlation was other's opinion (r = 0.490). For low-attention and real information (B2; F = 71.056, $p < 0.01$, R^2 = 0.810), the strongest Pearson correlation was the poster's reliability (r = 0.866), and the weakest Pearson correlation was logicality (r = 0.526; see Table 6). This study showed that accuracy, logicality, unbiasedness, similarity, other's opinion, and poster reliability were statistically relevant to the credibility of the information.

For the effects of different IPs within high-attention and fake information (A1) on participants' judgment of

Table 4. ANOVA and description of the effect of different IPs on information judgment.

					ANOVA					
	IP	*N*	*M*	*SD*		SS	df	MS	F	sig
Fake	None	74	3.22	1.081	Between	7.608	2	3.804	3.205	0.043
	Beijing	70	3.11	1.062						
	US	73	2.78	1.123	Within	254.024	214	1.187		
Real	None	74	3.46	1.529	Between	26.996	2	13.498	6.468	0.002
	Beijing	70	3.26	1.366						
	US	73	2.64	1.430	Within	446.579	214	2.087		

Table 5. Multiple linear regression analysis results related to different IPs in determining the believability.

	R	R^2	*SE*	*F*	*sig*
Fake	0.109[a]	0.012	1.502	0.634	0.639
Real	0.136[a]	0.019	1.762	0.999	0.409

Notes: Predictors—(constant), total hours of use, frequency, average daily visit, and operational ability; dependent variable—believability; [a] = adjust.

Table 6. Pearson correlation for believability.

	Believability (A1)	Believability (A2)	Believability (B1)	Believability (B2)
Accuracy	0.672	0.515	0.608	0.688
Logicality	0.360	0.044	0.493	0.526
Unbiasedness	0.365	0.302	0.538	0.698
Similarity	0.629	0.599	0.597	0.835
Other's opinion	0.557	0.382	0.490	0.653
Poster's reliability	0.711	0.763	0.748	0.866

information believability, IP shown as Beijing (F = 5.738, p < 0.01, R^2 = 0.534) and IP shown as US (F = 28.505, p < 0.01, R^2 = 0.855) suggested that when the IP of fake information with high-attention was shown as being US, data filled in by participants on the accuracy, completeness, unbiasedness, similarity, other's opinion, and the reliability of the poster was correlated more strongly with the data of their believability. For low-attention and fake information (A2), IPs shown as Beijing (F = 10.587, p < 0.01, R^2 = 0.710) and IPs shown as US (F = 7.947, p < 0.01, R^2 = 0.614) suggested that when the IP of fake information with low-attention was shown as Beijing, data filled in by participants on the accuracy, completeness, unbiasedness, similarity, other's opinion, and the reliability of the poster correlated more strongly with the data of their believability. For high-attention and real information (B1), IPs shown as Beijing (F = 17.748, p < 0.01, R^2 = 0.780) and IPs shown as US (F = 16.283, p < 0.01, R^2 = 0.771) suggested that there was no significant difference in real information with high-attention. And for low-attention and real information(B2), IPs shown as Beijing (F = 18.854, p < 0.01, R^2 = 0.813) and IPs shown as US (F = 32.941, p < 0.01, R^2 = 0.868) suggested that when the IP of real information with low-attention was shown as US, data filled in by the participants on the accuracy, completeness, unbiasedness, similarity, other's opinion, the reliability of the poster correlated more strongly with the data of their believability (Table 7). This demonstrated that H3 was valid and that the stronger the correlation between participants' judgments of accuracy, completeness, unbiasedness, similarity, other's opinion, poster reliability, and their judgments of believability, the more likely it was that the IP was overseas.

The results showed that the participants' believability scores differed insignificantly under different origins, with the independent variable being the participants' origin and the dependent variable being the participants' believability score for the information they read (1 = *totally disagree* to 7 = *totally agree*). Before running the ANOVA, we checked the assumption of homogeneity of variance using Levene's test of equality of error variances, and the assumption met all four constructs (p > 0.05): for high-attention and fake information (A1), F(1,35) = 2.739, p = 0.107; for low-attention and fake information (A2), F(1,31) = 0.180, p = 0.674; for high-attention and real information (B1), F(1,35) = 0.019, p = 0.892; and for low-attention and real information (B2), F(1,31) = 0.030, p = 0.865 (Table 8). This proved that both H4a and H4b were invalid and that whether the participants' place of origin was the same as the IP did not affect their judgment of the believability of the fake or real information.

We used two-factor ANOVA to test the effects of different types of IPs on judging the believability of information, with independent variables being the IP and the attention to the information and the dependent variable being the believability score of the information seen by the participants (1 = *totally disagree* to 7 = *totally agree*). Before running the two-factor ANOVA, we tested the assumption of homogeneity of variance using Levene's test of equality of error variances, and

Table 7. Multiple linear regression analysis results related to believability in different IPs.

	IP	R	R^2	SE	F	sig
A1	Beijing	0.731[a]	0.534	1.169	5.738	0
	US	0.925[a]	0.855	0.659	28.505	0
A2	Beijing	0.842[a]	0.710	0.790	10.587	0
	US	0.783[a]	0.614	0.755	7.947	0
B1	Beijing	0.883[a]	0.780	0.712	17.748	0
	US	0.878[a]	0.771	0.716	16.283	0
B2	Beijing	0.902[a]	0.813	0.782	18.854	0
	US	0.932[a]	0.868	0.734	17.763	0

Notes: Dependent variable—believability; predictors—(constant), accuracy, logicality, unbiasedness, similarity, other's opinion, poster's reliability; [a] = adjust.

Table 8. ANOVA on the effect of place of origin on information judgment.

			SS	*df*	*MS*	*F*	*sig*
High-attention	Fake	Between	6.394	1	6.394	2.739	0.107
		Within	81.714	35	2.335		
	Real	Between	0.037	1	0.037	0.019	0.892
		Within	69.152	35	1.976		
Low-attention	Fake	Between	0.323	1	0.323	0.18	0.674
		Within	55.556	31	1.792		
	Real	Between	0.081	1	0.081	0.030	0.865
		Within	84.889	31	2.738		

both the assumption for fake and real information were met by the data ($p > 0.05$). The results of the statistical tests showed that for the information with high attention ($F = 0.724$, $p = 0.486$, partial $\eta^2 = 0.007$), there were no statistically significant differences in the main effects of different IPs on the information with high attention. For low-attention information ($F = 8.629$, $p < 0.01$, partial $\eta^2 = 0.077$), there was a statistically significant difference in the main effects of different IPs on low-attention information (Table 9). This proved that H5a was valid and that participants were less influenced by IP when judging the believability of high-attention information than when judging the believability of low-attention information.

Given that high-attention in employment information and low-attention in retirement information are both social and livelihood information, this study categorized the attention ranking of social and livelihood information according to the participants, where ranking 1 to 3 is *high-attention*, 4 to 6 is *medium attention*, and 7 to 9 is *low-attention*. The results showed that the participants' scores for judging believability differed insignificantly with different levels of attention. The independent variable was the participants' level of attention to social and livelihood information, and the dependent variable was the participants' score for the believability of the information they read (1 = *totally disagree* to 7 = *totally agree*). Before running the ANOVA, we tested the assumption of homogeneity of variances using Levene's test of equality of error variances, and both the assumption for fake and real information were met by the data ($p > 0.05$). The data for fake information (F [2,214] = 0.402, $p = 0.670$) and real information (F [2,214] = 0.339, $p = 0.713$) proved that H5b was not valid and that the participants' level of attention in the information-related area did not affect their judgment of the believability of the information (Table 10).

5. Discussion and Conclusion

Governments, social platforms, and users are increasingly concerned about the spread of disinformation on social media. The Chinese government and social platforms hope to help users distinguish the quality of information by disclosing the IP locations of posters. This study conducted a controlled experiment with 217 first-year students to examine the impact of a poster's IP being disclosed on the perceptions of Weibo users with different habits and information preferences and to explore whether such disclosure facilitates the fight against disinformation or deepens cognitive biases.

Experiments showed that there was a significant difference in users' judgments of true or false information

Table 9. Different IP effects on high and low-attention's coherence values.

	df	*MS*	*F*	*sig*	partial η^2
High-attention	2	1.709	0.724	0.486	0.007
Low-attention	2	19.004	8.629	0	0.077

Notes: Dependent variable—believability; R(High-attention)^2 = 0.87 (adjusted R^2 = 0.066); R(Low-attention)^2 = 0.229 (adjusted R^2 = 0.210).

Table 10. ANOVA on the effect of interest of social and livelihood information on information judgment.

		SS	*df*	*MS*	*F*	*sig*
Fake	Between	1.811	2	0.905	0.402	0.670
	Within	482.346	214	2.254		
Real	Between	2.116	2	1.058	0.339	0.713
	Within	668.391	214	3.123		

whether the IP location of information posters was displayed or not, displayed as a domestic city or displayed as overseas. That is to say, the IP location of the information poster does influence users' judgments of the authenticity of the information. However, this influence is not entirely conducive to combating and reducing false information. In general, when the IP location of the information poster is shown to be overseas, users rate the credibility of the information lower regardless of whether the information is true or false. We believe it may be related to nationalism on the Chinese internet. Scholars suggest that digital nationalism in China is on the rise; simultaneously, there is a belief that this rise is being fueled by the internet (Zhang et al., 2018). As one of China's most dominant social media platforms, Weibo offers a virtual "imagined community" for netizens to interact with national symbols to spontaneously strengthen a sense of national identity (Zhang, 2020). Chinese netizens' mistrust of media and sources in Western countries might have evolved into mistrust of overseas IP posters. Since a study of American Twitter users has shown that Twitter authors whose location is close to their own are seen as more credible (Morris et al., 2012), we may perhaps suppose that distance represents the unknown and dubious in the view of both Chinese and American netizens.

Characteristics of today's information and communication environment highlight the complex reality that information consumers face when evaluating online information. In this study, users were less influenced by IP when judging the credibility of high-attention information than that of low-attention information. Other factors, such as users' attention and familiarity with the information, also play a role in users' judgments of its authenticity, and these factors may, to some extent, dissipate the influence of the poster's IP being displayed. This study proved the importance of the psychological dimensions of people's information appraisals, including their information processing activities, the personality-based characteristics that influence information appraisals, and the dynamics of information appraisals that develop in the context of online social interaction, as suggested by Metzger and Flanagin (2015).

The results showed that whether the user's long-term residence is the same as where the IP is displayed has no effect on their judgment of the credibility of both false and true information, meaning the consistency between users' long-term residence and poster IP is not important for users to make judgments about the credibility of information. High levels of Weibo usage also do not affect users' judgment of the credibility of the information, and this may be related to the small difference in college students' overall use of Weibo. Scholars have argued that location information, together with various social structural features, such as network overlap and social distance, can be generated at a relatively low cost but may yield great utility in discovering credible information (Yang et al., 2013). Affordances in mediated environments are subject to cognitive as well as emotional processes (Nagy & Neff, 2015). These views and our results suggest that the cognitively demanding task of identifying the quality of information in social media is determined by a variety of factors and requires further systematic research.

The results also showed that users' perceptions of information's accuracy, logical coherence, absence of bias, alignment with their own views, consistency with the majority opinion, and trustworthiness of the source are all statistically positively correlated with the overall credibility of information.

However, this study did not prove that these variables are the basis for users to judge the credibility of the information and could not indicate a causal relationship between them. This somewhat validates the study of Housholder and LaMarre (2014) about the relationship between perceptions of attitudinal similarity, information credibility, political participation, and party identification. Combining the five characteristics of information sources that scholars have proposed as influencing the effectiveness of online rumors in China's catastrophic events—credibility, professionalism, attractiveness, mystery, and concreteness (Meng et al., 2022), we suggest that these characteristics can be explored in the future in distinguishing the quality of information.

Although this study yielded interesting results, several limitations need to be acknowledged. A social medium is inherently social in nature, in that it seeks to create, capitalize on, or maintain social interactions among its users (Carr & Hayes, 2015). In terms of users' daily use of microblogs, the authentication information of the poster, the content of previously posted messages, the number of likes and retweets of messages, and the general tendency of attitudes in message comments all influence users' judgments of message authenticity, whereas we only examined the influence of displaying the location of the poster on users' information perception and judgments. A systematic study of the perceived credibility of social media information from a more macro perspective should consider the influence of factors such as social media affordances, social norms, cultural context, and the user's psychological framework. The validity of these and other potential factors should be identified and ranked in a hierarchical order.

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Conflict of Interests

The authors declare no conflict of interest.

References

Bessi, A., & Ferrara, E. (2016). Social bots distort the 2016 US presidential election online discussion. *First Monday*, *21*(11). http://dx.doi.org/10.5210/fm.v21i11.7090

Blascovich, J., & Mendes, W. B. (2000). Challenge and threat appraisals: The role of affective cues. In J. P. Forgas (Ed.), *Feeling and thinking: The role of affect in social cognition* (pp. 59–82). Cambridge University Press.

Carlson, M. (2017). *Journalistic authority: Legitimating news in the digital era*. Columbia University Press.

Carr, C. T., & Hayes, R. A. (2015). Social media: Defining, developing, and divining. *Atlantic Journal of Communication*, *23*(1), 46–65. https://doi.org/10.1080/15456870.2015.972282

China Internet Network Information Center. (2021). *The 47th statistical report on China's internet development*. http://www.cnnic.net.cn/NMediaFile/old_attach/P020210203334633480104.pdf

China Internet Network Information Center. (2022). *The 50th statistical report on China's internet development*. http://www.cnnic.net.cn/NMediaFile/2022/0926/MAIN1664183425619U2MS433V3V.pdf

China's Weibo shows user locations to combat "bad behaviour." (2022, April 28). *Reuters*. https://www.reuters.com/world/china/weibo-shows-user-locations-combat-bad-behaviour-2022-04-28

Conroy, N. K., Rubin, V. L., & Chen, Y. (2015). Automatic deception detection: Methods for finding fake news. *Proceedings of the Association for Information Science and Technology*, *52*(1), 1–4. https://doi.org/10.1002/pra2.2015.145052010082

Deligiannis, N., Huu, T. D., Nguyen, D. M., & Luo, X. (2018). Deep learning for geolocating social media users and detecting fake news. In *NATO Workshop STO-MP-IST-160* (pp. 1–12). NATO.

Egelhofer, J. L., & Lecheler, S. (2019). Fake news as a two-dimensional phenomenon: A framework and research agenda. *Annals of the International Communication Association*, *43*(2), 97–116. https://doi.org/10.1080/23808985.2019.1602782

Fallis, D. (2009, February 28). A conceptual analysis of disinformation. In *iConference 2009* (pp. 1–8). IDEALS. https://www.ideals.illinois.edu/items/15210

Fetzer, J. H. (2004). Disinformation: The use of false information. *Minds and Machines*, *14*(2), 231–240.

Fu, J. (2018). Chinese youth performing identities and navigating belonging online. *Journal of Youth Studies*, *21*(2), 129–143. https://doi.org/10.1080/13676261.2017.1355444

Fudan Development Institute. (2021). *China online social mindset report (2020)*. https://fddi.fudan.edu.cn/36/c7/c19047a276167/page.htm

Fudan Development Institute. (2022). *Survey report on social mindset of young Chinese internet users (2009–2021)*. https://fddi.fudan.edu.cn/c0/06/c18985a442374/page.htm

Garrett, R. K. (2009). Echo chambers online?: Politically motivated selective exposure among internet news users. *Journal of Computer-Mediated Communication*, *14*(2), 265–285. https://doi.org/10.1111/j.1083-6101.2009.01440.x

Garrett, R. K., & Stroud, N. J. (2014). Partisan paths to exposure diversity: Differences in pro-and counterattitudinal news consumption. *Journal of Communication*, *64*(4), 680–701. https://doi.org/10.1111/jcom.12105

Gearhart, S., Moe, A., & Zhang, B. (2020). Hostile media bias on social media: Testing the effect of user comments on perceptions of news bias and credibility. *Human Behavior and Emerging Technologies*, *2*(2), 140–148. https://doi.org/10.1002/hbe2.185

Harwit, E. (2014). The rise and influence of Weibo (microblogs) in China. *Asian Survey*, *54*(6), 1059–1087. https://doi.org/10.1525/as.2014.54.6.1059

Homer, P. M., & Kahle, L. R. (1990). Source expertise, time of source identification, and involvement in persuasion: An elaborative processing perspective. *Journal of Advertising*, *19*(1), 30–39. https://doi.org/10.1080/00913367.1990.10673178

Housholder, E. E., & LaMarre, H. L. (2014). Facebook politics: Toward a process model for achieving political source credibility through social media. *Journal of Information Technology & Politics*, *11*(4), 368–382. https://doi.org/10.1080/19331681.2014.951753

Howard, P. N., Woolley, S., & Calo, R. (2018). Algorithms, bots, and political communication in the US 2016 election: The challenge of automated political communication for election law and administration. *Journal of Information Technology & Politics*, *15*(2), 81–93. https://doi.org/10.1080/19331681.2018.1448735

Hunt, K., Wang, B., & Zhuang, J. (2020). Misinformation debunking and cross-platform information sharing through Twitter during Hurricanes Harvey and Irma: A case study on shelters and ID checks. *Natural Hazards*, *103*(2020), 861–883. https://doi.org/10.1007/s11069-020-04016-6

Iyengar, S., & Han, K. S. (2008). Red media, blue media: Evidence of ideological selectivity in media use. *Journal of Communication*, *59*(1), 19–39. https://doi.org/10.1111/j.1460-2466.2008.01402.x

Kahneman, D., & Tversky, A. (1973). On the psychology of prediction. *Psychological Review*, *80*(4), 237–251. https://doi.org/10.1037/h0034747

Karlova, N. A., & Fisher, K. E. (2013). A social diffusion model of misinformation and disinformation for understanding human information behaviour. *Information Research*, *18*(1), 1–17.

Kumar, K. P., & Geethakumari, G. (2014). Detecting misinformation in online social networks using cognitive psychology. *Human-Centric Computing and Information Sciences*, *4*(1), Article 14. https://doi.org/10.1186/s13673-014-0014-x

Lazer, D. M., Baum, M. A., Benkler, Y., Berinsky, A. J., Greenhill, K. M., Menczer, F., Metzger, M. J., Nyhan, B., Pennycook, G., Rothschild, D., Schudson, M., Sloman, S. A., Sunstein, C. R., Thorson, E. A., Watts, D. J. L., & Zittrain, J. (2018). The science of fake news: Addressing fake news requires a multidisciplinary effort. *Science*, *359*(6380), 1094–1096. https://www.science.org/doi/10.1126/science.aao2998

Liu, Y. (2015). Tweeting, re-tweeting, and commenting: Microblogging and social movements in China. *Asian Journal of Communication*, *25*(6), 567–583. https://doi.org/10.1080/01292986.2015.1013971

Maio, G. R., & Olson, J. M. (1998). Values as truisms: Evidence and implications. *Journal of Personality and Social Psychology*, *74*(2), 294–311. https://doi.org/10.1037/0022-3514.74.2.294

Major, B., Kaiser, C. R., O'Brien, L. T., & McCoy, S. K. (2007). Perceived discrimination as worldview threat or worldview confirmation: Implications for self-esteem. *Journal of Personality and Social Psychology*, *92*(6), 1068–1086. https://doi.org/10.1037/0022-3514.92.6.1068

Martinez, T. (2019). *The effects of cognitive engagement while learning about misinformation on social media* [Unpublished doctoral dissertation]. Arizona State University. https://www.pqdtcn.com/thesisDetails/59F6E3B43B8C44ED82507EC23EC53E53

Meng, L., Li, T., Huang, X., & Li, S. (2022). Lift the veil of rumors: The impact of the characteristics of information sources on the effectiveness of rumors spreading. *Internet Research*, *32*(1), 90–119. https://doi.org/10.1108/INTR-11-2020-0620

Metzger, M. J., & Flanagin, A. J. (2015). Psychological approaches to credibility assessment online. In S. S. Sundar (Ed.), *The handbook of the psychology of communication technology* (pp. 445–466). https://doi.org/10.1002/9781118426456.ch20

Morris, M. R., Counts, S., Roseway, A., Hoff, A., & Schwarz, J. (2012). Tweeting is believing? Understanding microblog credibility perceptions. In *CSCW '12: Proceedings of the ACM 2012 Conference on Computer Supported Cooperative Work* (pp. 441–450). Association for Computing Machinery. https://doi.org/10.1145/2145204.2145274

Nagy, P., & Neff, G. (2015). Imagined affordance: Reconstructing a keyword for communication theory. *Social Media + Society*, *1*(2), 1–9. https://doi.org/10.1177/2056305115603385

Nan, F., Suo, Y., Jia, X., Wu, Y., & Shan, S. (2018). Real-time monitoring of smart campus and construction of Weibo public opinion platform. *IEEE Access*, *6*, 76502–76515.

National Bureau of Statistics of China. (2021). *China statistical yearbook 2021*. China Statistics Press. http://www.stats.gov.cn/tjsj/ndsj/2021/indexch.htm

Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, *2*(2), 175–220. https://doi.org/10.1037/1089-2680.2.2.175

Nyhan, B., & Reifler, J. (2010). When corrections fail: The persistence of political misperceptions. *Political Behavior*, *32*(2), 303–330. https://doi.org/10.1007/s11109-010-9112-2

Otis, A. (2022). The effects of transparency cues on news source credibility online: An investigation of "opinion labels." *Journalism*. Advance online publication. https://doi.org/10.1177/1464884922112900

Pang, H. (2018). Can microblogs motivate involvement in civic and political life? Examining uses, gratifications and social outcomes among Chinese youth. *Online Information Review*, *42*(5), 663–680. https://doi.org/10.1108/OIR-04-2017-0136

Paolucci, C. (2011). The "external mind": Semiotics, pragmatism, extended mind and distributed cognition. *Versus*, *112*, 69–96.

Petty, R. E., & Cacioppo, J. T. (1986). The elaboration likelihood model of persuasion. In R. E. Petty & J. T. Cacioppo (Eds.), *Communication and persuasion* (pp. 1–24). Springer. https://doi.org/10.1007/978-1-4612-4964-1_1

Poell, T., De Kloet, J., & Zeng, G. (2014). Will the real Weibo please stand up? Chinese online contention and actor-network theory. *Chinese Journal of Communication*, *7*(1), 1–18. https://doi.org/10.1080/17544750.2013.816753

Sharma, K., Qian, F., Jiang, H., Ruchansky, N., Zhang, M., & Liu, Y. (2019). Combating fake news: A survey on identification and mitigation techniques. *ACM Transactions on Intelligent Systems and Technology (TIST)*, *10*(3), Article 21. https://doi.org/10.1145/3305260

Shu, K., Sliva, A., Wang, S., Tang, J., & Liu, H. (2017). Fake news detection on social media: A data mining perspective. *ACM SIGKDD Explorations Newsletter*, *19*(1), 22–36. https://doi.org/10.1145/3137597.3137600

Tandoc, E. C., Jr., Lim, Z. W., & Ling, R. (2018). Defining "fake news" a typology of scholarly definitions. *Digital Journalism*, *6*(2), 137–153. https://doi.org/10.1080/21670811.2017.1360143

Townsend, S. S. M., Major, B., Sawyer, P. J., & Mendes, W. B. (2010). Can the absence of prejudice be more threatening than its presence? It depends on one's worldview. *Journal of Personality and Social Psychology*, *99*(6), 933–947. https://doi.org/10.1037/a0020434

Van Aelst, P., Strömbäck, J., Aalberg, T., Esser, F., de Vreese, C., Matthes, J., Hopmann, D., Salgado, S., Hubé, N., Stępińska, A., Papathanassopoulos, S., Berganza, R., Legnante, G., Reinemann, C., Sheafer, T., & Stanyer, J. (2017). Political communica-

tion in a high-choice media environment: A challenge for democracy? *Annals of the International Communication Association*, *41*(1), 3–27. https://doi.org/10.1080/23808985.2017.1288551

Wang, S. A., Pang, M. S., & Pavlou, P. A. (2018). *"Cure or poison?" Identity verification and the spread of fake news on social media* (No. 18-040). Fox School of Business.

Wang, X., Sirianni, A. D., Tang, S., Zheng, Z., & Fu, F. (2020). Public discourse and social network echo chambers driven by socio-cognitive biases. *Physical Review X*, *10*(4), 41–42. https://doi.org/10.1103/PhysRevX.10.041042

Weibo Q1 profit tops estimates. (2022, June 1). *RTTNews*. https://www.nasdaq.com/articles/weibo-q1-profit-tops-estimates

Workman, M. (2018). An empirical study of social media exchanges about a controversial topic: Confirmation bias and participant characteristics. *The Journal of Social Media in Society*, *7*(1), 381–400.

Yang, J., Counts, S., Morris, M. R., & Hoff, A. (2013). Microblog credibility perceptions: comparing the USA and China. In *CSCW '13: Proceedings of the 2013 conference on Computer Supported Cooperative Work* (pp. 575–586). https://doi.org/10.1145/2441776.2441841

Zhang, D. (2020). Digital nationalism on Weibo on the 70th Chinese national day. *The Journal of Communication and Media Studies*, *6*(1), 1–19. https://doi.org/10.18848/2470-9247/CGP/v06i01/1-19

Zhang, L., & Pentina, I. (2012). Motivations and usage patterns of Weibo. *Cyberpsychology, Behavior, and Social Networking*, *15*(6), 312–317. https://doi.org/10.1089/cyber.2011.0615

Zhang, X., & Lin, W. Y. (2014). Political participation in an unlikely place: How individuals engage in politics through social networking sites in China. *International Journal of Communication*, *8*(2014), 21–42.

Zhang, Y., Liu, J., & Wen, J. (2018). Nationalism on Weibo: Towards a multifaceted understanding of Chinese nationalism. *The China Quarterly*, *235*, 758–783. https://doi.org/10.1017/S0305741018000863

Ziemke, D. A. (1980). Selective exposure in a presidential campaign contingent on certainty and salience. *Annals of the International Communication Association*, *4*(1), 497–511. https://doi.org/10.1080/23808985.1980.11923821

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