

Combat Fake News Sharing on Social Media: A Rational Choice and Social Media Literacy Perspective

Haixiao Kong, Mastura Mahamed, Zulhamri Abdullah
Department of Communication, Faculty of Modern Languages and Communication,
Universiti Putra Malaysia, Malaysia

To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v14-i10/22714> DOI:10.6007/IJARBSS/v14-i10/22714

Published Date: 11 October 2024

Abstract

Sharing fake news on social media is regarded as one of the vital threats to national democracy, social stability, and even the mental health of individuals. In contrast, insufficient research focuses on the motives behind such sharing. In this study, we adopted a quantitative approach to examine how possessed social media literacy and rational choice factors affect Chinese social media users' fake news sharing behaviors, especially during the COVID-19 pandemic. We used an online survey to collect data from 416 Chinese WeChat users. We found that fake news sharing behavior was predicted by specific rational choice factors, which were status seeking, trust in social media, and fear of missing out. Meanwhile, we find that relationships between the above factors and fake news sharing behavior can be effectively moderated by an individual's social media literacy. This study reinforces the role of social media literacy in combating the spread of fake news. It expands the existing literature on fake news sharing by highlighting the importance of user-based strategies in addressing this global issue. Future research should consider the impact of characteristics of different sample groups on fake news sharing behavior.

Keywords: COVID-19, Rational Choice Factors, Social Media Literacy, Fake News Sharing, Social Media

Introduction and Background

The purpose of this study is to examine how rational choice factors and social media literacy competencies influence social media users' fake news sharing behaviors, specifically addressing the topic of COVID-19. The results of a large number of studies have shown a correlation between the proliferation of fake news and the development of social media. Millions of users are interacting on social media platforms and creating huge amounts of content. Due to the popularity of retweeting and the scarcity of content vetting, the worldwide dissemination of fake news fueled by social media is at an alarming rate (Meel & Vishwakarma, 2020).

Researchers have recently turned their attention to the issue of fake news, particularly topics related to the COVID-19 crisis. The unexpected infectious disease crisis led to the implementation of lockdowns and isolation orders as governments sought to curb the spread of the virus. These measures, while necessary, made people more dependent on social media platforms for information and communication (Kemei et al., 2022). This increase in online communication and interaction raised the risk of fake news (Rathore & Farooq, 2020). During the pandemic, a massive amount of unverified and inaccurate information about the virus, disease, treatment, and vaccines has been found on social media platforms, which is generally called fake news (Rocha et al., 2021). In the current study, fake news is defined as news that is intentionally fabricated to deceive the public but shared whether knowingly or unknowingly.

Fake news related to COVID-19 poses a range of threats and challenges to global public health and social stability. Fake news of COVID-19 causes fear, panic, and depression, and breeds “risky citizen behavior”, disregarding safety protocols, like anti-mask and anti-vaccine, and even protesting and undermining government health policies (Kemei et al., 2022). Besides, Asian populations have been discriminated against and hated, because some contend that they are the origin of the COVID-19 virus (Gagliardone et al., 2021). These and other examples demonstrate that fake news is destructive to society and that combating it is critical in order to protect the public from the dangers of disinformation.

According to some prior studies, one of the effective methods of combating fake news is to empower users to identify fake news on social media platforms (Melchior & Oliveira, 2023). For instance, preventing people from being exposed to fake news content by restricting, hiding, or deleting articles identified as misinformation, or by banning websites known to have published fake news altogether. This solution is not feasible because neither bots nor humans can detect fake news with 100% accuracy. At the same time, it greatly restricts people's freedom of access to news (Snijders, Conijn, de Fouw, & van Berlo, 2023). What's more, social media platforms have leveraged novel technologies, such as bots or algorithms, flagging news content that may contain misleading information, and fact-checking sites designed to enable users to check the news content before sharing it (Dabbous, Aoun Barakat, & de Quero Navarro, 2022). However, in reality, for fear of trouble or perceived delay, many users are confronted with information without fact-checking its content or source (Schuetz, 2021). The effect of flags has been proven limited when the news content is aligned with users' ideology (Tandoc, Lim, & Ling, 2020).

As a response to these criticisms, it has been argued that the important role of social media users should be emphasized in the war against fake news, as they are not only consumers of news content but also creators and sharers (Kong, Mahamed, Abdullah, & Abas, 2023). It is thought that social media users have a significant impact in slowing the spread of fake news, but there is little systematic research on rational choice factors predicting users' fake news behavior, especially in the context of COVID-19 (Cho, Cannon, Lopez, & Li, 2022).

Although previous studies have associated fake news sharing with entertainment (Balakrishnan, Ng, & Rahim, 2021), status seeking (Wei, Gong, Xu, Eeza Zainal Abidin, & Destiny Apuke, 2023), trust in social media (Samya, Tonmoy, & Rabbi, 2023), and fear of missing out (Talwar, Dhir, Kaur, Zafar, & Alrasheedy, 2019), it is unclear if social media literacy

will influence fake news sharing online. In this view, we introduced social media literacy as a moderating factor in combating fake news in the current study. Though there is no single agreed definition of social media literacy, the term is generally used to describe users' ability to access, analyze, and evaluate the content spread through various social media platforms (Bryanov & Vziatysheva, 2021). Equipped with enough social media literacy, users are more likely to share media content responsibly and to become accountable creators of media information (Ku et al., 2019), in this way curbing the viral dissemination of fake news.

Previous studies associated with COVID-19-related fake news sharing have been largely conducted in the Western context primarily focusing on Facebook or Twitter (Sampat & Raj, 2022), paucity of studies in the Asian context, especially in China, which has experienced a serious infodemic (Leng et al., 2021). Thus, the current study is among a few attempts to understand the influencing factors of WeChat users' fake news sharing in China. Drawing from the theory of rational choice, we reinforce the role of entertainment, status seeking, trust in social media, and fear of missing out on users' COVID-19 related news sharing behavior to support existing literature. Furthermore, based on previous literature, we tested the moderating effect of social media literacy in curtailing fake news circulation. We chose these variables because they have received less attention and contrary conclusions in different contexts. As a user-based study of combating fake news, it is essential to investigate rational choice elements connected with fake news sharing. The present study enlarges the knowledge of user-based influencing factors of sharing fake news and the moderating role of social media literacy in combating fake news on Chinese social media platforms. Figure 1 shows our research model.

Theoretical Background and Hypothesis Development

Rational choice theory, developed by the political economist Adam Smith in the 18th century, originated in economics and has since found applications in various social disciplines for the analysis of human behavior. This theory posits that individuals make decisions by conducting cost-benefit analyses, aiming to maximize benefits (Herfeld, 2020). Essentially, people, in pursuit of their interest needs, assess different alternatives and, guided by their preferences, opt for the option that best aligns with their needs. While extensively employed in political science, behavior studies, psychology, and various research fields (Foy, Schleifer, & Tiryakian, 2018), rational choice theory has more recently been utilized by scholars to comprehend the phenomenon of sharing fake news (Talwar et al., 2019). In the realm of fake news research, rational choice theory serves as a framework for understanding the reasons behind individuals' choices to believe in or disseminate misinformation.

It has been observed that, even when users are aware of social media fatigue, they still choose to continue using social media to meet their ongoing information needs (Logan, Bright, & Grau, 2018), and the resulting excessive media exposure and information overload have been proven to be positively associated with unverified information sharing online. This leaves users with insufficient time and energy to verify the authenticity of information and the reliability of its sources, thereby accelerating the dissemination of fake news (Huang, Lei, & Ni, 2022). There is evidence suggesting that during the COVID-19 pandemic, a plethora of infodemic about vaccines, preventive measures, and treatments flooded various social media platforms (Balakrishnan, Ng, Soo, Han, & Lee, 2022). Despite uncertainty regarding the accuracy of the news content, driven by altruism and social connections, individuals still opt

to share unverified news on social media, significantly contributing to the propagation of fake news online (Church, Thambusamy, & Nemati, 2020).

Besides this, users are found to utilize social media platforms to seek status via sharing information, the gratification of status seeking has been regarded as a significant influencing factor of COVID-19 related fake news sharing (Apuke & Omar, 2021b). What's more, people who trust social media platforms are more likely to share fake news because this kind of trust reduces their authentication behavior (Wei et al., 2023). It is worth noting that the relationship between entertainment (Lee & Ma, 2012; Leng et al., 2021), fear of missing out (Pundir, Devi, & Nath, 2021; Talwar et al., 2019) and fake news sharing has been controversial in previous studies. Therefore, in the present study, we sought to re-validate the role of these two factors on fake news sharing in the context of COVID-19, having reinforced previous findings.

Status seeking

Status seeking has been regarded as one major factor of fake news sharing on social media (Apuke & Omar, 2021b). On the one hand, people often want to be the "first messenger", they feel obliged to be the first to inform their family and friends about breaking news, like the impact of the pandemic or the side effects of certain medicines, most of the time they don't check whether the news is legit or not. On the other hand, people have admitted that sharing fake news could help them gain more followers and boost their business popularity, especially when the fake news goes viral (Mahamad, Ambran, Azman, & de Luna, n.d.). During the COVID-19 pandemic, fake news led to irrational mass purchases of foods and drugs (Leng et al., 2021). The status seeking motive creates opportunities for the spread of fake news, as it encourages people to disregard the truthfulness of news content. Thus, we proposed that:

H1: status seeking is positively associated with fake news sharing.

Trust in social media

When it comes to news sharing, trust in social media is typically reflected in people's conviction that social media platforms are legitimate, reliable, and trustworthy as well as the consideration that social media may be utilized for unrestricted information sharing (Dabbous et al., 2022). Users who trust social media usually feel overly secure with the information provided by social media platforms, in this way, users may ignore the existence of misleading news. Evidence has shown that trust in social media to a large extent contributed to the spreading of fake news (Wei et al., 2023). It was also argued that trust in social media can result in users' hastily news-sharing behavior without proper verification, leading to the spread of fake news on social media platforms (Samya et al., 2023). Based on these views above, we assume that:

H2: Trust in social media is positively associated with fake news sharing.

Entertainment

Interacting with friends, exchanging information, and passing time through social media is a way for people to entertain themselves, in this way, people can relieve anxiety, escape reality, and release stress (Lee & Ma, 2012). A number of studies have confirmed that the utilization of social media could satisfy users' entertainment gratification. For instance, it was found that

individuals share information on Facebook for enjoyment, relaxation, and entertainment (Baek, Lee, & Kim, 2021). Entertainment was significantly associated with Facebook usage (Kim, Lee, & Elias, 2015). People find it interesting to exchange information with other people on social media and this virtual interaction makes them feel relaxed and delightful (Anspach & Carlson, 2020). However, there are conflicting findings on the role of entertainment in the context of fake news sharing. Previous research revealed that entertainment was not significantly associated with sharing COVID-19 related fake news (Apuke & Omar, 2021a). On the contrary, in other studies entertainment motivation has been proven to significantly predict sharing unvalidated COVID-19 news on social media (Balakrishnan et al., 2021; Islam, Laato, Talukder, & Sutinen, 2020). Based on the discussion above, we believe in globally enforced self-isolation, people are increasingly relying on social media to seek virus-related news and information, and are eager to share it with family and friends. In this way, the tendency of individuals to use social media for self-entertainment will increase. Due to this view, we propose that:

H3: Entertainment is positively associated with fake news sharing.

Fear of Missing Out

Fear of missing out (FOMO) is a social anxiety that arises from the fear of being excluded or rejected by peers or social groups. As social beings, we all desire recognition and a sense of belonging. When we feel ignored or rejected by our peers or community, we may experience anxiety, fear, and other negative emotions (Baumeister & Tice, 1990). Research has indicated a correlation between social media use and the fear of missing out. For example, social media users often feel compelled to frequently check for updates on their social media pages to avoid being excluded (Abel, Buff, & Burr, 2016). Social media platforms typically highlight popularity through likes, comments, and shares, leading individuals to engage in online activities to gain recognition and acceptance from their peers and avoid being overlooked. To remain connected with their social circle, individuals tend to share popular news or important information, fearing a lack of common ground with their friends or social group (Roberts & David, 2020). However, this eagerness to participate may result in the spread of unverified information, leading to the propagation of fake news. In addition, social media platforms' algorithms can increase user engagement by prioritizing the display of attention-grabbing or controversial information. As a result, people may be more likely to share fake news with dramatic or controversial content (Wu, Zhao, Wang, Song, & Lian, 2023). Studies have shown that FOMO had a direct effect on problematic social networking site use during the COVID-19 pandemic (Gioia, Fioravanti, Casale, & Boursier, 2021). Thus, we assume that:

H4: FOMO is positively associated with fake news sharing.

Social Media Literacy as the Moderating Variable

For the current study, we assume that social media literacy can moderate the relationship between rational choice factors and the behaviors of fake news sharing among Chinese social media users. Social media literacy is a derivative of the notion of media literacy, which usually focuses on the analysis of mass media content and values. In contrast, social media literacy refers to the technical and cognitive capabilities of users to effectively and responsibly utilize social media to exchange information and engage in online interactions (Cho et al., 2022). Although there is no uniform definition of the competencies of social media literacy, previous

studies have generally referred to users' ability to understand, analyze, evaluate, synthesize, and interpret social media content. Critical thinking is considered the foundation of social media literacy (Polanco-Levicán & Salvo-Garrido, 2022). The current study adopts the definition of social media literacy proposed by Tandoc Jr et al. (2021). He grouped social media competencies into four parts, including technical competency, social relationships, informational awareness, and privacy and algorithmic awareness (Jr et al., 2021).

Few previous studies have explored the effect of social media literacy on fake news. For example, undergraduate students were found with a relatively low degree of social media literacy, although they could use different social media platforms effectively and understand the information they encountered, they demonstrated difficulty in distinguishing fake news from real news, which contributed to unintended sharing of fake news (Universitas Syiah Kuala, Indonesia, Syam, Nurrahmi, & Universitas Syiah Kuala, Indonesia, 2020). It was addressed that people equipped with social media literacy could differentiate subjective facts from objective opinions (Ouedraogo, 2020). Thus, they can help to stop the circulation of fake news by commenting on posts with misinformation and warn other people to set the record straight. In addition, critical thinking has been regarded as an effective weapon to combat fake news on social media. Since critically thinking users intend to check and evaluate social media content, this careful checking process makes them less likely to share unverified information online (Orhan, 2023). Regarding the issue of combating COVID-19 related misinformation, scholars have emphasized the significance of promoting education on social media literacy, as well as related literacies such as information and digital literacy (Ahmad, Aliaga Lazarte, & Mirjalili, 2022; Kemei et al., 2022; Rocha et al., 2021).

According to the research presented above, social media literacy can be a crucial factor in the fight against fake news on social media. Users with social media literacy skills could think critically about news, verify the reliability of sources, and responsibly create and share news (Buchanan, 2020). Although previous research has examined the influence of social media literacy on the dissemination of online fake news, few have directly confirmed the moderating effect of social media literacy, particularly in the context of COVID-19. Therefore, we suggest:

H5: Social media literacy will moderate the relationship between status seeking and fake news sharing on COVID-19

H6: Social media literacy will moderate the relationship between trust in social media and fake news sharing on COVID-19

H7: Social media literacy will moderate the relationship between entertainment and fake news sharing on COVID-19

H8: Social media literacy will moderate the relationship between fear of missing out and fake news sharing on COVID-19

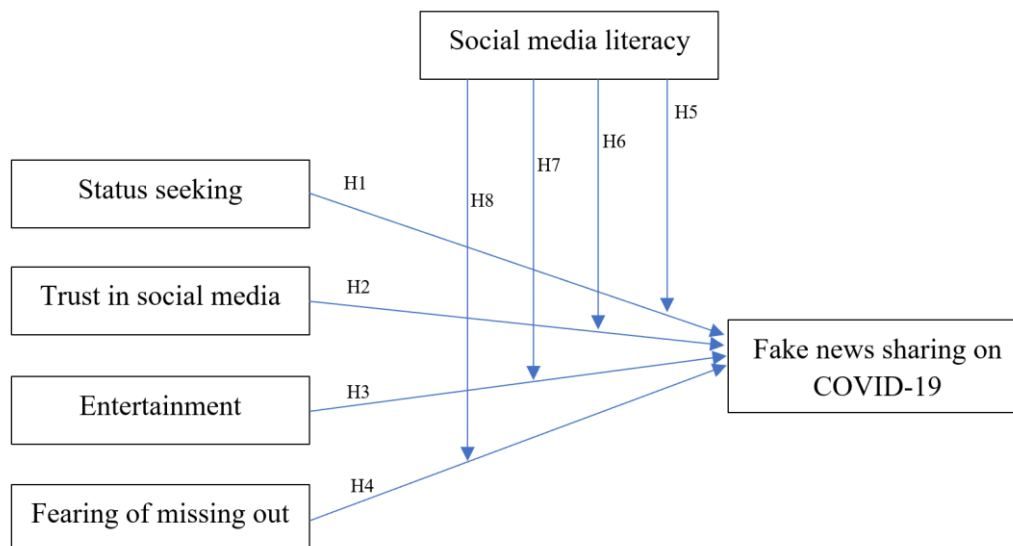


Fig. 1 shows the research model of this study.

Measurements

Sample and Data Collection

This study adopted a quantitative research design using a survey method. We created an online questionnaire on the Questionnaire Star platform as a research instrument for data analysis. To obtain data on Chinese social media users, we only distributed the questionnaire on WeChat, the most representative social media platform in China. We measured six variables in the hypothesized model and included demographic variables of gender, age, educational background, etc. in the questionnaire. We focus on the fake news sharing behavior of WeChat users over the age of 18 and their social media literacy skills. Due to the huge number of WeChat users, as well as the scarcity of valid sample frames, it is very difficult to conduct random sampling for all WeChat users. Therefore, this study utilized the snowball sampling technique, which is a commonly used non-probability sampling method. Specifically, we recruited participants by distributing an anonymous survey link (Questionnaire star) in the WeChat group and asked WeChat users to share the link with their social network friends after completing all the questions.

We have two screening questions for this survey, which are participants must have an active WeChat account and must have shared news on WeChat. The survey will be terminated with a thank you note if a participant indicates a negative answer to either of these two questions. Data collection for this study began in February 2024 and ended in March. A total of 450 questionnaires were collected for this formal survey. However, four participants were excluded as they did not have an active WeChat account, and 30 samples were excluded as they had never shared news on WeChat, making a total of 34 invalid questionnaires. Therefore, the valid number of questionnaires for this survey was 416. Participation is voluntary and there is an opportunity to opt out at any time. Their personal information is also kept confidential, which is stated and guaranteed on the first page of the questionnaire.

Characteristics of the Respondents

The demography analysis of our respondents showed that male (50.7%) was slightly outnumbered the females (49.3%). Regarding age, 8.4% were below 17 years old, 49.8% were between 17 and 22 and 38% were between 22 and 27, only 3.8% were above 27 years old.

Concerning the resources of respondents, 50.5% are from Southwest University and 49.5% come from the Chongqing Technology and Business University. In terms of educational background, 74.3% of the respondents had a bachelor's degree, 17.8% had a master's degree, and 7.9% had a Ph.D. degree. Overall, these data provide a detailed understanding of the demographic characteristics of the participants and help to analyze the composition and characteristics of the sample in depth.

Measures

We had six constructs; four independent variables, which are status seeking, trust in social media, entertainment, and fear of missing out, and one dependent variable, which is fake news sharing. Besides, we made social media literacy the moderating variable. All questionnaire items were adapted from previous studies (shown in Table 1). We used a 5-point Likert scale to gauge our items, where 1 means “Strongly Disagreed”, and 5 means “Strongly Agreed”. A pilot study with 45 participants was conducted to minimize item ambiguity before the actual data collection process. Besides, two experts who majored in mass communication helped us to validate the questionnaire. According to the result of the pilot test and the feedback from these experts, we modified our items.

Table 1

Construct reliability, composite reliability, and AVE values.

Constructs	Items	M	SD	Outer loading	CA	CR	AVE
Status seeking ((Apuke & Omar, 2020a))	SS1	3.20	1.348	0.780	0.827	0.828	0.547
	SS2	3.10	1.257	0.709			
	SS3	3.14	1.333	0.766			
	SS4	3.05	1.322	0.688			
Trust in social media ((Salehan et al., 2018))	TSM1	3.20	1.351	0.719	0.799	0.800	0.572
	TSM2	3.30	1.290	0.764			
	TSM3	3.30	1.315	0.784			
Entertainment ((Balakrishnan et al., 2021))	ET1	3.26	1.347	0.808	0.847	0.851	0.655
	ET2	3.27	1.353	0.765			
	ET3	3.29	1.192	0.853			
Fear of missing out ((Balakrishnan et al., 2021))	FOMO 1	3.27	1.330	0.846	0.817	0.817	0.691
	FOMO2	3.26	1.339	0.816			
Social media literacy ((E. Tandoc et al., 2021))	SML1	3.33	1.363	0.796	0.925	0.925	0.607
	SML2	3.37	1.336	0.781			
	SML3	3.43	1.371	0.773			
	SML4	3.31	1.336	0.765			
	SML5	3.41	1.356	0.770			
	SML6	3.34	1.389	0.781			
	SML7	3.34	1.323	0.779			
	SML8	3.38	1.351	0.785			
Fake news sharing ((Apuke & Omar, 2020b))	FNS1	3.39	1.336	0.801	0.898	0.898	0.639
	FNS2	3.35	1.293	0.786			
	FNS3	3.36	1.303	0.792			
	FNS4	3.34	1.311	0.804			
	FNS5	3.41	1.370	0.813			

Data Analysis

We utilized the SPSS version 24 to analysis the collected data, and we used mean, standard deviations (SD), outer loading etc. to show the descriptive statistical data. The structural equation modelling (SEM), and AMOS 22 were applied to identify the proposed hypothesis. We also checked the common method bias (CMB) via Harman's single factor test, the results indicated that the variance of a single factor was 29.398%, which is within the 50% limit (Hair, Ringle, & Sarstedt, 2013). What's more, the Variance Inflation Factor (VIF) was between 1.052

and 1.183, less than 3.3 (Hair et al., 2013). Based on the above evaluations, we had no issue with CMB and multicollinearity, which could affect the data.

Results

Measurement Model

To evaluate the measurement model, we examined the convergent validity, discriminant validity, and internal consistency. The convergent validity was measured by the factor loadings and average variance extracted (AVE). As indicated in Table 1, the loadings for all items were above the requisite value of 0.7 (Hair and Sarstedt, 2019), and AVE exceeded the recommended threshold of 0.5 (Hair et al., 2017). Referring to the discriminant validity, Table 2 demonstrated no values above 0.85, which represents a benchmark for establishing discriminant validity using the Heterotrait–Monotrait ratio of correlations (HTMT). Furthermore, internal consistency was measured using the values of Cronbach’s alpha and composite reliability (CR). Results showed that Cronbach’s alpha and CR values exceeded the limit of 0,7, respectively. Consequently, our model exhibits no issues with convergent validity, discriminant validity, and internal consistency.

Table 2

Discriminant validity Heterotrait-Monotrait (HTMT)						
Construct	1	2	3	4	5	6
1 Status seeking	0.740					
2 Trust in social media	0.186	0.756				
3 Entertainment	0.196	0.222	0.809			
4 Fear of missing out	0.291	0.431	0.121	0.831		
5 Social media literacy	0.113	0.247	0.232	0.282	0.779	
6 Fake news sharing	0.368	0.423	0.148	0.409	0.442	0.799

Structural Model

As shown in Table 3, status seeking ($\beta=0.236$, $p<0.05$), trust in social media ($\beta=0.249$, $p<0.05$) as well as fear of missing out ($\beta=0.206$, $p<0.05$), positively predicted fake news sharing about the COVID-19. That means H1, H2, and H4 were supported. We hypothesized a positive association between entertainment and fake news sharing, however, our result showed that entertainment did not predict COVID-19 related fake news sharing ($\beta=0.027$, $p>0.05$). Thus, H3 was not supported. The value of Q2 (predictive relevance) was above zero, indicating that our model has good predictive relevance. And lastly, the value of R2 (coefficient of determination) showed a percentage of 24, suggesting that our model explains 24% of the variance in people’s behavior of sharing the COVID-19 related fake news on WeChat in the current study.

Table 3

Structural model results: direct effects.

No	Hypothesized relationship	β	t values	Q ²	P-value	Hypothesis
H1	Status seeking → Fake news sharing	0.236	5.302		0.000***	Supported
H2	Trust in social media → Fake news sharing	0.249	5.371	0.242	0.000***	Supported
H3	Entertainment → Fake news sharing	0.027	0.605		0.546	Not
H4	Fear of missing out → Fake news sharing	0.206	4.401		0.000***	Supported

As for social media literacy, we utilized the two-stage approach to examine its moderating effect (Memon et al., 2019). The findings of the moderation analysis are shown in Table 4. We found that social media literacy negatively moderated the relationship between status seeking ($\beta=-0.139$, $p<0.05$), trust in social media ($\beta=-0.144$, $p<0.05$), fear of missing out ($\beta=-0.175$, $p<0.05$) and fake news sharing regarding the COVID-19. Consequently, H5, H6, and H8 were supported, which means the relationships were stronger among those with low social media literacy skills. However, we realized that social media literacy did not play a moderating role in the relationship between entertainment ($\beta=-0.081$, $p>0.05$) and fake news sharing. Thus, H7 was not supported.

Table 4

Structural model results: moderating effects.

No	Hypothesized relationship	β	t values	Hypothesis
H5	Status seeking*SML → Fake news sharing	-0.139***	-3.173	Supported
H6	Trust in social media*SML → Fake news sharing	-0.144***	-3.285	Supported
H7	Entertainment*SML → Fake news sharing	-0.081	-1.786	Not
H8	Fear of missing out*SML → Fake news sharing	-0.175***	-4.045	Supported

* SML: Social media literacy, * significant at $p < 0.05$, ** at $p < 0.01$, and *** at $p < 0.001$.

Discussion

The underlying rational choice factors predicting COVID-19 related fake news sharing behavior were investigated by a fake news sharing model, mainly based on the U&G and rational choice theory, which contains four independent variables, namely, status seeking, trust in social media, entertainment and fear of missing out. This study showed an interesting result of the moderating role of social media literacy in the process of fake news sharing. The structured equation modeling revealed these factors to collectively explain 24% of COVID-19 related fake news sharing behavior among WeChat users in China. This is lower than a similar study conducted in Nigeria with the R2 value of 78% (Apuke & Omar, 2020a), however, the influence factors investigated differ from our research. This suggests that there are other potential factors for the COVID-19 related fake news sharing that warrant further investigation, for instance, altruism (Balakrishnan et al., 2021), news finds me (Wei et al., 2023), instant news sharing (Apuke & Omar, 2020b), and social media fatigue (Talwar et al., 2019), among others.

Status seeking, trust in social media, and fear of missing out were found to significantly and positively affect the fake news sharing behavior of WeChat users in China, whilst entertainment was insignificant. Trust in social media has been proven to be the strongest factor in predicting fake news sharing in the current study. WeChat users in China appear to have high trust in the platform, which has facilitated the sharing of news and information more freely. This was particularly evident during the recent outbreak of the novel coronavirus when blockades and quarantines limited the ability of individuals to verify the authenticity of news content through multiple information channels. In such circumstances, WeChat users frequently shared news content to keep their family and friends informed about developments related to the pandemic without verifying its authenticity. This is following the outcome of a similar study that Nigerian social media users place a considerable degree of trust in social media, which in turn leads to a reduction in the authentication behavior before sharing news online (Wei et al., 2023). It also has been established that people who trust social networking sites (SNS) are more likely to engage in spreading misinformation (Salehan, Kim, & Koo, 2018).

Status seeking was found to be the second important factor that positively predicts one's fake news sharing behavior in the current study. This indicates that Chinese users who have the purpose of status seeking are more likely to share fake news on WeChat. It's contrary to the results of previous studies that status seeking was not associated with fake news sharing because people don't want to share the news that may damage their good image in the eyes of others (Talwar et al., 2019). The discrepancy may be attributed to the fact that, in China, during the pandemic, some WeChat users or organizations hoped to increase the number of their followers and to be more noticed by sharing a considerable volume of news related to COVID-19, and ultimately to achieve their own commercial or political objective. In the process, they tended to share news that could easily cause panic and controversy without verifying the authenticity of the content (Kemei et al., 2022).

Entertainment was not found to be significant in predicting COVID-19 related fake news sharing in the current study, which supports the results of previous studies (Apuke & Omar, 2020b; Lee & Ma, 2012; Thompson, Wang, & Daya, 2020). The outcome indicates that Chinese social media users are less likely to disseminate unverified, COVID-19 related news for purely entertaining purposes. We reasoned that this is because the novel coronavirus in China has caused a multitude of fatalities and injuries, as well as family breakdowns and doctor-patient conflicts. People are more cautious about sharing news related to these severe and scary social topics.

Fear of missing out (FOMO) was investigated to be positively associated with fake news sharing albeit with a weak effect, a finding that was reflected in a similar research that argues that FOMO predicts people's fake news sharing behavior online (Talwar et al., 2019). This finding is in line with the results of one study conducted by Nottingham Trent University (2016), which argued that FOMO drives people to share gossip in cyberspace (University, n.d.). We believe that Chinese people possess an Asian collectivism, with a particular focus on social belonging and a fear of being isolated or ostracized by their social connections, both online and offline. This fear of social ostracism has led people to increase their self-disclosure and constantly share information to update their profiles, which promotes the spread of fake news online.

What's more, social media literacy has been found to exert a significant moderating effect on the relationship between status seeking, trust in social media, FOMO, and fake news sharing. This result indicates that the relationships/effects will be weaker among users with high social media literacy. However, we found that there was no moderating effect of social media literacy on the relationship between entertainment and fake news sharing. Social media literacy helps users to critically understand, analyze, and synthesize news content from different social media platforms (Polanco-Levicán & Salvo-Garrido, 2022). Therefore, a user with greater social media analytical abilities will authenticate before posting anything on social media to avoid damaging their reputation by spreading fake information. As for trust in social media, we reason that people with high levels of technical and cognitive capabilities can evaluate social media platforms more effectively and critically (Orhan, 2023), and carefully scrutinize news sources before sharing them with their contacts, thus reducing the likelihood of sharing false or fake news. In addition to this, users with a high level of social media literacy can use a variety of ways to maintain their social relationships and maintain rational interactions with their online communities (Jr et al., 2021), rather than mindlessly sharing all the news and information they receive in order to pander to others. These results solidify the argument of prior research which proposed that social media literacy could help to combat the circulation of fake news by improving people's ability to judge the credibility of news sources, evaluate the quality of news content, separate views from facts, and be a respondent news sharer (Ahmad et al., 2022).

Conclusion

During the COVID-19, an infodemic dominated by fake news has made a profoundly detrimental impact around the world. It is therefore essential to identify the underlying factors that drive the sharing and combat the dissemination of fake news.

Building on the U&G and rational choice theory, we conclude that trust in social media, status seeking, and fear of missing out leads to COVID-19 related fake news sharing among WeChat users in China. Specifically, status seeking and trust in social media have a greater impact on fake news sharing while entertainment has no relationship with fake news sharing. We also conclude that social media literacy negatively moderates the relationship between trust in social media, status seeking, fear of missing out, and fake news sharing. This means the relationship will be stronger among users with low social media literacy. Our findings contribute to theory and practice.

Theoretically, the outcome of this study provides a substantial contribution to the existing body of knowledge without sufficient empirical investigation, specifically regarding the topic of COVID-19 in China. The empirical model of fake news sharing proposed and validated in our research is considered crucial in the sense that it first tested and confirmed the moderating role of social media literacy in the relationship between trust in social media, status seeking, fear of missing out, and fake news sharing behavior among Chinese social media users. This increases our understanding of the effect of social media literacy in combating the spread of fake news online. Social media literacy should be regarded as one of the most powerful weapons in the fight against fake news. Our research model, therefore, can provide a foundation for additional research into this issue by other academics. Another prominent contribution of the current research is its focus on the nation of China, a developing country that is less well-studied.

In terms of practicality, we highly recommend that campaigns focusing on social media literacy or digital information literacy be implemented. Schools and higher education institutions should incorporate media-related literacy education into their basic education systems to help young people develop a sense of critical thinking and skills in the use of social media from an early age. In addition, the media should take responsibility for creating awareness of fake news issues more positively and actively.

Finally, the positive collaboration between governments, technology organizations, and the media may also provide solutions to enhance the ability of media platforms to detect and fight fake news through the use of AI or algorithms (Snijders et al., 2023). Relevant laws and regulations should be enacted by the government to penalize irresponsible news-sharing behavior on social media, which will, to a certain extent, curb the spread of fake news (Kong et al., 2023).

Inevitably, our study has several limitations. Firstly, owing to the limited study sample of Chinese college students and the short period of data collection, we obtained a small sample size of only 400 respondents. Therefore, our findings can't fully represent the actual situation of the entire Chinese social media users. Future researcher could collect data on a larger scale by focusing on respondents of different demography and age groups. e.g., the elderly. The elderly group is suggested to be more susceptible to fake news, especially health-related information (Grinberg, Joseph, Friedland, Swire-Thompson, & Lazer, 2019).

Secondly, the present study employed the snowball sampling technique to collect data, which is less generalizable. As a result, future studies should employ other sampling techniques to improve the representativeness of the sample. Thirdly, the total variance explained by the rational factors identified in this study is only 24%, which is not very substantial, meaning that more factors can influence the fake news sharing behavior of social media users. Therefore, more variables, such as altruism (Church et al., 2020), social media fatigue (Islam et al., 2020), and individual emotions (Chou, Gaysynsky, & Vanderpool, 2021) should be introduced into the fake news sharing research model to extend the existing knowledge. Despite its limitations, our study contributes to the research on combating fake news in Chinese social media by incorporating the moderating role of social media literacy.

Reference

- Abel, J. P., Buff, C. L., & Burr, S. A. (2016). Social Media and the Fear of Missing Out: Scale Development and Assessment. *Journal of Business & Economics Research (JBER)*, *14*(1), 33–44. doi: 10.19030/jber.v14i1.9554
- Ahmad, T., Aliaga Lazarte, E. A., & Mirjalili, S. (2022). A Systematic Literature Review on Fake News in the COVID-19 Pandemic: Can AI Propose a Solution? *Applied Sciences*, *12*(24), 12727. doi: 10.3390/app122412727
- Anspach, N. M., & Carlson, T. N. (2020). What to Believe? Social Media Commentary and Belief in Misinformation. *Political Behavior*, *42*(3), 697–718. doi: 10.1007/s11109-018-9515-z
- Apuke, O. D., & Omar, B. (2020a). Modelling the antecedent factors that affect online fake news sharing on COVID-19: The moderating role of fake news knowledge. *Health Education Research*, *35*(5), 490–503. doi: 10.1093/her/cyaa030

- Apuke, O. D., & Omar, B. (2020b). User motivation in fake news sharing during the COVID-19 pandemic: An application of the uses and gratification theory. *Online Information Review*, 45(1), 220–239. doi: 10.1108/OIR-03-2020-0116
- Apuke, O. D., & Omar, B. (2021a). Fake news and COVID-19: Modelling the predictors of fake news sharing among social media users. *Telematics and Informatics*, 56, 101475. doi: 10.1016/j.tele.2020.101475
- Apuke, O. D., & Omar, B. (2021b). Social media affordances and information abundance: Enabling fake news sharing during the COVID-19 health crisis. *Health Informatics Journal*, 27(3), 146045822110214. doi: 10.1177/14604582211021470
- Baek, H., Lee, S., & Kim, S. (2021). Are female users equally active? An empirical study of the gender imbalance in Korean online news commenting. *Telematics and Informatics*, 62, 101635. doi: 10.1016/j.tele.2021.101635
- Balakrishnan, V., Ng, K. S., & Rahim, H. A. (2021). To share or not to share – The underlying motives of sharing fake news amidst the COVID-19 pandemic in Malaysia. *Technology in Society*, 66, 101676. doi: 10.1016/j.techsoc.2021.101676
- Balakrishnan, V., Ng, W. Z., Soo, M. C., Han, G. J., & Lee, C. J. (2022). Infodemic and fake news – A comprehensive overview of its global magnitude during the COVID-19 pandemic in 2021: A scoping review. *International Journal of Disaster Risk Reduction*, 78, 103144. doi: 10.1016/j.ijdrr.2022.103144
- Baumeister, R. F., & Tice, D. M. (1990). Point-Counterpoints: Anxiety and Social Exclusion. *Journal of Social and Clinical Psychology*, 9(2), 165–195. doi: 10.1521/jscp.1990.9.2.165
- Bryanov, K., & Vziatyshva, V. (2021). Determinants of individuals' belief in fake news: A scoping review determinants of belief in fake news. *PLOS ONE*, 16(6), e0253717. doi: 10.1371/journal.pone.0253717
- Buchanan, T. (2020). Why do people spread false information online? The effects of message and viewer characteristics on self-reported likelihood of sharing social media disinformation. *PLOS ONE*, 15(10), e0239666. doi: 10.1371/journal.pone.0239666
- Cho, H., Cannon, J., Lopez, R., & Li, W. (2022). Social media literacy: A conceptual framework. *New Media & Society*, 14614448211068530. doi: 10.1177/14614448211068530
- Chou, W.-Y. S., Gaysynsky, A., & Vanderpool, R. C. (2021). The COVID-19 Misinfodemic: Moving beyond fact-checking. *Health Education & Behavior*, 48(1), 9–13.
- Church, M., Thambusamy, R., & Nemati, H. (2020). User misrepresentation in online social networks: How competition and altruism impact online disclosure behaviours. *Behaviour & Information Technology*, 39(12), 1320–1340. doi: 10.1080/0144929X.2019.1667440
- Dabbous, A., Aoun Barakat, K., & de Quero Navarro, B. (2022). Fake news detection and social media trust: A cross-cultural perspective. *Behaviour & Information Technology*, 41(14), 2953–2972. doi: 10.1080/0144929X.2021.1963475
- Foy, S. L., Schleifer, C., & Tiryakian, E. A. (2018). The Rise of Rational Choice Theory as a Scientific/Intellectual Movement in Sociology. *The American Sociologist*, 49(1), 16–36. doi: 10.1007/s12108-017-9335-3
- Gagliardone, I., Diepeveen, S., Findlay, K., Olaniran, S., Pohjonen, M., & Tallam, E. (2021). Demystifying the COVID-19 Infodemic: Conspiracies, Context, and the Agency of Users. *Social Media + Society*, 7(3), 205630512110442. doi: 10.1177/20563051211044233
- Gioia, F., Fioravanti, G., Casale, S., & Boursier, V. (2021). The Effects of the Fear of Missing Out on People's Social Networking Sites Use During the COVID-19 Pandemic: The Mediating Role of Online Relational Closeness and Individuals' Online Communication Attitude.

- Frontiers in Psychiatry*, 12. Retrieved from <https://www.frontiersin.org/articles/10.3389/fpsy.2021.620442>
- Grinberg, N., Joseph, K., Friedland, L., Swire-Thompson, B., & Lazer, D. (2019). Fake news on Twitter during the 2016 U.S. presidential election. *Science*, 363(6425), 374–378. doi: 10.1126/science.aau2706
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial Least Squares Structural Equation Modeling: Rigorous Applications, Better Results and Higher Acceptance. *Long Range Planning*, 46(1), 1–12. doi: 10.1016/j.lrp.2013.01.001
- Herfeld, C. (2020). The Diversity of Rational Choice Theory: A Review Note. *Topoi*, 39(2), 329–347. doi: 10.1007/s11245-018-9588-7
- Huang, Q., Lei, S., & Ni, B. (2022). Perceived Information Overload and Unverified Information Sharing on WeChat Amid the COVID-19 Pandemic: A Moderated Mediation Model of Anxiety and Perceived Herd. *Frontiers in Psychology*, 13, 837820. doi: 10.3389/fpsyg.2022.837820
- Islam, A. K. M. N., Laato, S., Talukder, S., & Sutinen, E. (2020). Misinformation sharing and social media fatigue during COVID-19: An affordance and cognitive load perspective. *Technological Forecasting and Social Change*, 159, 120201. doi: 10.1016/j.techfore.2020.120201
- Jr, E. C. T., Yee, A. Z. H., Ong, J., Lee, J. C. B., Xu, D., Han, Z., ... Cayabyab, M. Y. (2021). Developing a Perceived Social Media Literacy Scale: Evidence from Singapore. *International Journal of Communication*, 15(0), 22. Retrieved from <https://ijoc.org/index.php/ijoc/article/view/16118>
- Kemei, J., Alaazi, D. A., Tulli, M., Kennedy, M., Tunde-Byass, M., Bailey, P., ... Salami, B. (2022). A scoping review of COVID-19 online mis/disinformation in Black communities. *Journal of Global Health*, 12, 05026. doi: 10.7189/jogh.12.05026
- Kim, J., Lee, C., & Elias, T. (2015). Factors affecting information sharing in social networking sites amongst university students: Application of the knowledge-sharing model to social networking sites. *Online Information Review*, 39(3), 290–309. doi: 10.1108/OIR-01-2015-0022
- Kong, H., Mahamed, M., Abdullah, Z., & Abas, W. A. W. (2023). Systematic Literature Review on Driving Factors of COVID-19 Related Fake News Sharing on Social Media. *Studies in Media and Communication*, 11(7), 29. doi: 10.11114/smc.v11i7.6228
- Ku, K. Y. L., Kong, Q., Song, Y., Deng, L., Kang, Y., & Hu, A. (2019). What predicts adolescents' critical thinking about real-life news? The roles of social media news consumption and news media literacy. *Thinking Skills and Creativity*, 33, 100570. doi: 10.1016/j.tsc.2019.05.004
- Lee, C. S., & Ma, L. (2012). News sharing in social media: The effect of gratifications and prior experience. *Computers in Human Behavior*, 28(2), 331–339. doi: 10.1016/j.chb.2011.10.002
- Leng, Y., Zhai, Y., Sun, S., Wu, Y., Selzer, J., Strover, S., ... Ding, Y. (2021). Misinformation During the COVID-19 Outbreak in China: Cultural, Social and Political Entanglements. *IEEE Transactions on Big Data*, 7(1), 69–80. doi: 10.1109/TBDATA.2021.3055758
- Logan, K., Bright, L. F., & Grau, S. L. (2018). “Unfriend Me, Please!”: Social Media Fatigue and the Theory of Rational Choice. *Journal of Marketing Theory and Practice*, 26(4), 357–367. doi: 10.1080/10696679.2018.1488219
- Mahamad, T. E. T., Ambran, N. S., Azman, N. A. M., & de Luna, D. B. (n.d.). *Insights into social media users' motives for sharing unverified news*.

- Meel, P., & Vishwakarma, D. K. (2020). Fake news, rumor, information pollution in social media and web: A contemporary survey of state-of-the-arts, challenges and opportunities. *Expert Systems with Applications*, 153, 112986. doi: 10.1016/j.eswa.2019.112986
- Melchior, C., & Oliveira, M. (2023). A systematic literature review of the motivations to share fake news on social media platforms and how to fight them. *New Media & Society*, 14614448231174224. doi: 10.1177/14614448231174224
- Memon, M. A., Cheah, J.-H., Ramayah, T., Ting, H., Chuah, F., & Cham, T. H. (2019). MODERATION ANALYSIS: ISSUES AND GUIDELINES. *Journal of Applied Structural Equation Modeling*, 3(1), i–xi. doi: 10.47263/JASEM.3(1)01
- Orhan, A. (2023). Fake news detection on social media: The predictive role of university students' critical thinking dispositions and new media literacy. *Smart Learning Environments*, 10(1), 29. doi: 10.1186/s40561-023-00248-8
- Ouedraogo, N. (2020, May 15). *Social Media Literacy in Crisis Context: Fake News Consumption during COVID-19 Lockdown* [SSRN Scholarly Paper]. Rochester, NY. doi: 10.2139/ssrn.3601466
- Polanco-Levicán, K., & Salvo-Garrido, S. (2022). Understanding Social Media Literacy: A Systematic Review of the Concept and Its Competences. *International Journal of Environmental Research and Public Health*, 19(14), 8807. doi: 10.3390/ijerph19148807
- Pundir, V., Devi, E. B., & Nath, V. (2021). Arresting fake news sharing on social media: A theory of planned behavior approach. *Management Research Review*, 44(8), 1108–1138. doi: 10.1108/MRR-05-2020-0286
- Rathore, F., & Farooq, F. (2020). Information Overload and Infodemic in the COVID-19 Pandemic. *Journal of the Pakistan Medical Association*, (0), 1. doi: 10.5455/JPMA.38
- Roberts, J. A., & David, M. E. (2020). The Social Media Party: Fear of Missing Out (FoMO), Social Media Intensity, Connection, and Well-Being. *International Journal of Human–Computer Interaction*, 36(4), 386–392. doi: 10.1080/10447318.2019.1646517
- Rocha, Y. M., De Moura, G. A., Desidério, G. A., De Oliveira, C. H., Lourenço, F. D., & De Figueiredo Nicolete, L. D. (2021). The impact of fake news on social media and its influence on health during the COVID-19 pandemic: A systematic review. *Journal of Public Health*. doi: 10.1007/s10389-021-01658-z
- Salehan, M., Kim, D. J., & Koo, C. (2018). A study of the effect of social trust, trust in social networking services, and sharing attitude, on two dimensions of personal information sharing behavior. *The Journal of Supercomputing*, 74(8), 3596–3619. doi: 10.1007/s11227-016-1790-z
- Sampat, B., & Raj, S. (2022). Fake or real news? Understanding the gratifications and personality traits of individuals sharing fake news on social media platforms. *Aslib Journal of Information Management*, 74(5), 840–876. doi: 10.1108/AJIM-08-2021-0232
- Samya, S. S. R., Tonmoy, Md. S. I., & Rabbi, Md. F. (2023). A cognitive behaviour data analysis on the use of social media in global south context focusing on Bangladesh. *Scientific Reports*, 13(1), 4236. doi: 10.1038/s41598-023-30125-w
- Schuetz, P. (2021). Fly in the Face of Bias: Algorithmic Bias in Law Enforcement's Facial Recognition Technology and the Need for an Adaptive Legal Framework. *Minnesota Journal of Law & Inequality*, 39(1). doi: <https://doi.org/10.24926/25730037.391>
- Snijders, C., Conijn, R., de Fouw, E., & van Berlo, K. (2023). Humans and Algorithms Detecting Fake News: Effects of Individual and Contextual Confidence on Trust in Algorithmic

- Advice. *International Journal of Human–Computer Interaction*, 39(7), 1483–1494. doi: 10.1080/10447318.2022.2097601
- Talwar, S., Dhir, A., Kaur, P., Zafar, N., & Alrasheedy, M. (2019). Why do people share fake news? Associations between the dark side of social media use and fake news sharing behavior. *Journal of Retailing and Consumer Services*, 51, 72–82. doi: 10.1016/j.jretconser.2019.05.026
- Tandoc, E. C., Lim, D., & Ling, R. (2020). Diffusion of disinformation: How social media users respond to fake news and why. *Journalism*, 21(3), 381–398. doi: 10.1177/1464884919868325
- Thompson, N., Wang, X., & Daya, P. (2020). Determinants of News Sharing Behavior on Social Media. *Journal of Computer Information Systems*, 60(6), 593–601. doi: 10.1080/08874417.2019.1566803
- Universitas Syiah Kuala, Indonesia, Syam, H. M., Nurrahmi, F., & Universitas Syiah Kuala, Indonesia. (2020). “I Don’t Know If It Is Fake or Real News” How Little Indonesian University Students Understand Social Media Literacy. *Jurnal Komunikasi: Malaysian Journal of Communication*, 36(2), 92–105. doi: 10.17576/JKMJC-2020-3602-06
- University, N. T. (n.d.). “FOMO” a vicious circle for social media users. Retrieved July 30, 2024, from <https://medicalxpress.com/news/2016-10-fomo-vicious-circle-social-media.html>
- Wei, L., Gong, J., Xu, J., Eeza Zainal Abidin, N., & Destiny Apuke, O. (2023). Do social media literacy skills help in combating fake news spread? Modelling the moderating role of social media literacy skills in the relationship between rational choice factors and fake news sharing behaviour. *Telematics and Informatics*, 76, 101910. doi: 10.1016/j.tele.2022.101910
- Wu, D., Zhao, Y. C., Wang, X., Song, S., & Lian, J. (2023). Digital Hoarding in Everyday Hedonic Social Media Use: The Roles of Fear of Missing out (FoMO) and Social Media Affordances. *International Journal of Human–Computer Interaction*, 0(0), 1–16. doi: 10.1080/10447318.2023.2233139

Appendix A. Measurement

Status seeking

SS1	When I post COVID-19 related news on social media, it makes me feel significant.
SS2	When I post COVID-19 related news on social media, it helps me achieve status.
SS3	I use social media to communicate COVID-19 related news because it makes me appear more professional.
SS4	I utilize social media to communicate COVID-19 related news in order to earn support and respect.

Trust in social media

TSM1	WeChat is a reliable social media platform.
TSM2	I believe WeChat can keep my information private.
TSM3	I believe WeChat can keep my personal information safe from illegal access.

Entertainment

ET1	It is a satisfying experience to spread COVID-19 related news on WeChat.
ET2	It is funny to see others believing the COVID-19 related news on WeChat.
ET3	It is exciting to spread COVID-19 related news on WeChat.

Fear of missing out

FOMO 1	I fear I will be excluded from my social circle if I do not share COVID-19 related news on WeChat.
FOMO2	I fear my friends/peers will have more rewarding experience than me by sharing COVID-19 related news on WeChat.

Social media literacy

SML1	I know how to create an account on social media.
SML2	I know how to delete my account on social media.
SML3	I know how to post content, such as photos, on my social media.
SML4	I know how to remove unwanted content on my social media account
SML5	I know how to appropriately handle conflict in social media
SML6	I am aware of social media policy
SML7	I know how to use different sources of information to verify information I see on social media
SML8	I can tell whether an information on social media is false or true

Fake news sharing

FNS1	I have shared information related to COVID-19 virus that I later found out as a hoax
FNS2	I have shared news on WeChat related to COVID-19 that seem accurate at a time and I later found was made up
FNS3	I have shared news on WeChat related to COVID-19 that was exaggerated, but was not aware it was exaggerated at the time of sharing
FNS4	I have shared content on WeChat related to COVID-19 without checking facts through trusted sources
FNS5	I have shared content on WeChat related to COVID-19 without reading the entire article
