The Influence of Perceived Trolling on Weibo Users' Lurking Behavior

— The Moderating Role of Social Media Affordance and Platform Engagement

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Abstract: With society evolving, social media platforms have become an indispensable component of individuals' daily existence. However, the relationship between online trolling and user lurking behavior deserves more attention and research. This research, conducted using the Weibo platform, gathered 289 valid survey responses through a questionnaire to explore the correlation between online trolling and lurking. The moderating impacts of social media affordance and platform engagement were also examined. The results revealed that online trolling significantly and positively predicts lurking behavior; While the moderating influence of social media affordance did not yield significant results, the moderating impact of platform engagement was found to be significant. Specifically, at low levels of platform engagement, online trolling significantly and positively predicted lurking behavior, while at high levels of platform engagement, online trolling negatively predicted lurking behavior. Therefore, social media platforms should enhance their monitoring of online trolling and provide users with more privileges to increase their platform engagement and more features to deal with trolling, enabling them to participate in maintaining a healthy platform environment.

Keywords: trolling, lurking, social media affordance, platform engagement

1. Introduction

The advent of information technology has profoundly reshaped communication patterns, with social media platforms emerging as influential mediums for people to connect, share information, and express their opinions. "Weibo", a prominent social media platform in China, has gained immense popularity and plays a vital role in contemporary society. As one of China's largest social media platforms, Weibo possesses extensive social attributes, offering users the ability to share multimedia content such as texts, images, and videos [1]. Additionally, it allows users to engage in topic discussions through features like following, reposting, and commenting.

Notably, social media has greatly facilitated communication, enabling people to maintain relationships, establish new friendships, and seize various information. However, social media also

has adverse effects on social media fatigue, privacy leakage, and addiction [2]. These negative effects may not only be caused by the platform, but also by adverse effects caused internally by users. An essential component of social media engagements frequently involves trolling behaviors, which entail posting disruptive or irritating comments on the internet, often accompanied by cyber aggression directed towards particular demographics, communities, or even individuals [3].

Trolling represents disruptive and unsociable online conduct that aims to create conflict or distress for the amusement of the perpetrator. This behavior involves posting messages that are deliberately provocative and offensive [4]. Its primary purpose is to disrupt discussions and irritate others, typically achieved by presenting false information related to the topic at hand, making hasty judgments about individuals, launching personal attacks, and resorting to the use of profanity. The impact of trolling spans across physical, psychological, and social dimensions, encompassing both practical and aspirational consequences [5].

On social media, a majority of users are simply browsing and reading posts and comments made by others instead of sharing content and expressing views of their own. This behavior, where users consume information shared by others but rarely, if ever, post anything themselves, is referred to as lurking [6]. Research has shown that the emergence of lurking behavior is closely associated with users' concern for personal privacy information and their refusal to disclose information [6]. Besides, scholars also contend that an important reason prompting social media users to engage in lurking behavior is the perception that the dynamics of social media interactions are excessively intricate and beyond their sphere of control, prompting them to lurk as a strategy to circumvent potential stress and anxiety [7].

However, the studies mentioned above have limited coverage when it comes to examining psychosocial factors that could serve as predictors of lurking behaviors, resulting in an incomplete understanding of lurking as a whole. Despite its prevalence in social media communities and emerging as a prominent media culture phenomenon, few studies explore the connection between trolling and lurking behavior in social media like "Weibo" [3]. Therefore, this study aims to delve into the correlation between online trolling perception and lurking behavior on social media.

2. Method

2.1. Moderators and Hypotheses

Users' lurking behavior can be influenced by potential moderating variables [8]. "Weibo" offers various features such as privacy settings, blocking functions, and reporting mechanisms. These affordances provide users with the means to better protect their personal information and privacy while sharing and expressing their viewpoints and they also aid in warding off online trolls.

Meanwhile, media platform engagement pertains to the extent of user interest and satisfaction with a specific digital or social media platform [9]. It denotes the depth of connection and active involvement users have with the platform itself. It gives access to discover what causes users to tend to lurk on the platform, which has important implications for content creators, marketers, and platform developers seeking to optimize strategies and enhance user experiences in these digital spaces.

Therefore, to provide in-depth insights into the management and user experience of social media platforms, and to offer theoretical support and guidance for the further development and application of social media, users' perceptions of these media affordances and platform engagement would be examined as moderators between online trolling and lurking behavior.

Based on the foregoing discussions, this study posits the following hypotheses:

H1: Users with higher levels of perceived trolling exhibit higher levels of lurking behavior compared to users with lower levels of perceived trolling.

H2: The social media affordances moderate the relationship between online trolling perceptions and lurking behavior, with users who have weak affordance perceptions being more sensitive compared to those with strong affordance perceptions.

H3: Platform engagement moderates the relationship between online trolling perceptions and lurking behavior, with users who have shallow engagement being more sensitive compared to those with deep engagement.

This study uses a questionnaire method to explore the relationship between online trolling and lurking. Additionally, how social media affordances and platform engagement might serve as moderating factors will be examined in this context.

2.2. Measurement Development

The questionnaire is divided into five sections: Perceived Trolling, Lurking, Perceived Affordance, Platform Engagement, and Demographic Data. The questionnaire consists of a total of 35 items, and the items have been appropriately adapted based on previous research, taking into consideration the Chinese context.

The subscale cyber victim scale (CVS) from previous research was conducted to measure online trolling perception, with 3 dimensions and 16 items: cyber verbal bullying, cyber forgery, and technology abuse [10]. This study employed a five-point Likert scale to gauge the degree of agreement with the items incorporated in the scale. The grading system was structured as follows: "Always (5), Often (4), Sometimes (3), Infrequently (2), and Never (1)."

The subscale to measure lurking was adapted from the previous research and contains 5 items [6]. The measurement of social media affordance contains 5 items that were modified from the Perceived Affordances for Communication Channels Scale [11]. The platform engagement scale was altered from the study and includes 7 items. A five-point Likert scale was utilized to assess these 17 items, with response options spanning from "strongly agree, rated as 5" to "strongly disagree, rated as 1."

2.3. Pilot Test

Following the creation of the questionnaire, to verify its reliability and validity, the study distributed questionnaires to 40 Weibo users through the online survey platform Sojump.

To begin, the pilot test conducted a Kaiser-Meyer-Olkin measure (KMO) assessment and Bartlett's test of sphericity to evaluate the adequacy of the sample. The KMO measure produced a score of 0.781, and Bartlett's test of sphericity yielded a statistically significant result ($\chi 2(528) = 2145.04$, $p < 0.001$), signifying that the test had a suitable dataset for conducting exploratory factor analysis (EFA) on the questionnaire data. During the EFA, it was observed that all items demonstrated acceptable factor loading values ($p > 0.60$), affirming the questionnaire's robust validity.

Second, the pilot test calculated the Cronbach coefficient to investigate the reliability of the questionnaire. The result showed that the reliability coefficients of the items ranging from 0.812 to 0.988 were all acceptable ($\alpha > 0.8$).

2.4. Participant Selection and Data Gathering

In this research, a survey was distributed to users of Weibo through the Sojump platform, resulting in the gathering of 296 responses. The sample data underwent filtration based on the specified criteria. Initially, responses with survey completion durations of less than 1 minute were omitted from the analysis, as this suggested a lack of serious engagement from the participants. Secondly, data that did not adhere to the required selections in the attention-check questions were removed. This may suggest that participants did not carefully read the instructions and related survey items. In the end, 289 valid

survey responses were collected. Among the 289 respondents, the mean age was 34.82 years (Standard Deviation = ±9.705), with 79.7% of the respondents self-identifying as females.

3.   Result

To explore the relationship between online trolling and lurking behavior, this study conducted a Pearson's Correlation analysis using SPSS 25. The results are presented in Table 1 below:

The findings in Table 1 reveal several correlations. Among them, Perceived Trolling exhibits a positive correlation with Lurking (r = 0.187, p < 0.05). The results demonstrate the existence of a positive correlation between Perceived Trolling and Lurking. H1 is thus supported.

Table 1: Correlation Analysis of Key Variables.

	M	SD	Perceived Trolling	Perceived Affordances	Platform Engagement
Perceived Trolling	2.202	1.079			
Perceived Affordances	3.228	1.124	-0.320		
Platform Engagement	3.081	0.950	-0.119*	0.565**	
Lurking	3.252	0.912	0.187*	0.385**	0.428**

Notes: * *p*<0.05, ** *p*<0.01, *** *p*<0.001

To investigate the potential presence of a noteworthy moderating influence of Perceived Affordances and Platform Engagement in the relationship between Perceived Trolling and Lurking, this study tested the moderating effect according to Hayes [12]. Model 2 was used in the PROCESS 4.0 plugin of SPSS 25 for test analysis. The results are as follows in Table 2 below:

The outcomes presented in Table 2 indicate that the predictive impact of Int_1 on Lurking is not statistically significant, suggesting that the moderating effect of Perceived Affordances is not significant (β = 0.029, t = 0.688, p > 0.05). Int_2 has a significant predictive effect on Lurking, indicating that the moderating effect of Platform Engagement is significant (β = -0.381, t = -80.71, p < 0.001). The results indicate that Perceived Affordance does not significantly moderate the predictive effect of Perceived Trolling on Lurking, indicating that H2 is not supported. On the contrary, Platform Engagement significantly moderates the predictive effect of Perceived Trolling on Lurking, providing support for the first part of H3.

Table 2: Moderators Analysis.

	Lurking			
	SE	β	t	95%CI
Gender	0.103	0.064	0.619	[-0.139 ~ 0.267]
Age	0.004	-0.004	-1.026	[-0.013 ~ 0.004]
Perceived Trolling	0.040	0.100	2.510*	[0.022 ~ 0.178]
Perceived Affordances	0.047	0.188	4.020***	[0.096 ~ 0.281]
Platform Engagement	0.056	0.141	2.531*	[0.031 ~ 0.251]
Int_1	0.042	0.029	0.688	[-0.054 ~ 0.112]

Table 2: (continued).

Int_2	0.047	-0.381	-8.071***	[-0.474 ~ -0.288]
R^2	0.463			
F	34.592			

Notes: * $p<0.05$, ** $p<0.01$, *** $p<0.001$.
Int_1: Perceived Trolling × Perceived Affordances.
Int_2: Perceived Trolling × Platform Engagement.

The simple slope test for Platform Engagement further found that for deep engagement Weibo users, with the level of perceived trolling increases, lurking shows a significant upward trend (simple slope = 0.461, t = 7.518, p < 0.001); For shallow engagement Weibo users, the predictive effect of Perceived Trolling on lurking changes from positive prediction to negative prediction. As the level of perceived trolling increases, lurking shows a significant and smoother downward trend (simple slope = -0.261, t = -3.58, p < 0.01). Simple slope analysis results further indicate that the moderating effect of platform engagement is greater than what was anticipated by H3.

4. Discussion

4.1. Strengthening Platform Supervision

Table 1 results suggest that online trolling has a detrimental impact on the daily social functionality of Weibo platform users. To encourage greater user participation in social interactions and foster a more positive and engaging environment on the Weibo platform, it is advisable to strengthen regulatory measures against online trolling. This could involve implementing more stringent pre-publishing content reviews, establishing dedicated personnel teams for thorough verification and timely feedback on reported content, and instituting other proactive measures to identify and combat trolling behavior. By taking these steps, Weibo can create a safer and more conducive space for users to connect and interact.

4.2. Adding New Features to Combat Trolling

The results from Table 2 indicate that some of the privacy and security settings on the Weibo platform may not effectively assist users when facing online trolling, as certain users still choose the lurking strategy. This may be because, unlike cyberbullying, online trolling does not target specific individuals, rendering these individual-focused affordance settings less impactful [4]. To address this issue comprehensively, the Weibo platform should consider innovating its features by introducing functionalities like the ability to block certain groups or keywords. Such measures could provide users with a more robust defense against online trolling, ultimately enhancing their overall experience on the platform while reinforcing the importance of a safer online community.

4.3. Reasons for Moderating Effects of Platform Engagement

The results from Table 2 also reveal that when Weibo users encounter online trolling, their level of engagement with the platform significantly influences their decision to lurk. Simple slope analysis results further indicate that the moderating effect of platform engagement is greater than what was anticipated by research hypothesis H3. For users with deep engagement, online trolling even negatively predicts lurking. This could be attributed to the fact that deeply engaged users, owing to their reliance on and fondness for the Weibo platform, choose to respond and counteract instances of online trolling to uphold the platform's order and environment, rather than opting for lurking [5].

4.4. Promoting Positive Engagement

Promoting positive engagement practices on social media is essential for cultivating a healthier online ecosystem. By actively emphasizing and incentivizing constructive discussions, meaningful interactions, and valuable contributions, platforms can encourage their users to become proactive stewards of a positive online environment. This approach empowers users to play an active role in maintaining the platform's integrity and discouraging trolling behavior. When faced with online trolling, users are more likely to respond constructively, addressing issues and fostering a culture of respectful dialogue instead of resorting to passive lurking behavior. Ultimately, this shift in focus away from trolling behavior can create a more inclusive and productive online space, where users feel valued for their contributions and encouraged to participate in meaningful exchange.

5. Conclusions

This study employed a questionnaire-based approach among social media users on the Weibo platform to investigate the relationship between online trolling and lurking. Additionally, to delve deeper into comprehending the fundamental workings of this relationship, Perceived Affordance, and Platform Engagement were examined as moderating variables. The results revealed that Perceived Trolling significantly predicts lurking behavior among Weibo users, and the moderating effect of Weibo platform engagement is also statistically significant. Therefore, for the healthy development of the Weibo platform, it is necessary to strengthen the regulation of online trolling and to grant users more privileges to maintain the platform environment.

However, in this study, only Weibo users were selected as participants, which may introduce certain limitations to the generalizability of the research findings to other social media platforms. Furthermore, there are numerous factors influencing perceived trolling and lurking, and this study examined only a subset of these variables.

Therefore, future research endeavors could consider integrating more variables and including a broader range of participant groups to further enhance the generalizability of research findings. Such studies could also incorporate interview methodologies to gain deeper insights into the reasons behind users' choices to lurk when confronted with online trolling.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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