

Article

Unveiling the Impact of Mandatory IP Location Disclosure on Social Media Users' Shared Emotions: A Regression Discontinuity Analysis Based on Weibo Data

Heng Zhang ^{1,2} , Aiping Gao ^{3,*} , Zhuyu Chen ⁴ and Xinyuan Lu ^{4,*} 

¹ School of Economics and Management, Hubei University of Technology, Wuhan 430068, China; zhangheng@hbut.edu.cn

² Hubei Digital Industrial Economy Development Research Center, Wuhan 430068, China

³ Normal School of Vocational Techniques, Hubei University of Technology, Wuhan 430068, China

⁴ School of Information Management, Central China Normal University, Wuhan 430079, China; chenzhuyu@mails.ccnu.edu.cn

* Correspondence: 20240061@hbut.edu.cn (A.G.); luxy@ccnu.edu.cn (X.L.)

Abstract

Social media serves as a vital channel for emotional expression, yet mandatory IP location disclosure raises concerns about how reducing anonymity affects users' shared emotions, particularly in privacy-sensitive contexts such as mental health discussions. In 2022, all Chinese social media platforms implemented this disclosure feature. This study examines the emotional and behavioral consequences of Sina Weibo's mandatory IP location disclosure policy, which took effect on 28 April 2022. We collected 193,761 Weibo posts published under the topic of depression from 1 March to 30 June 2022, and applied sentiment analysis combined with regression discontinuity in time (RDiT) to estimate causal effects around the policy threshold. Results indicate that the policy significantly intensified negative emotional expression: the estimated discontinuity is -1.3506 ($p < 0.01$), meaning posts became more negative immediately after implementation. In contrast, the effect on positive sentiment was comparatively weak and mostly statistically insignificant. Behavioral changes were also observed: both average daily posting volume and average text length are declined. These findings demonstrate that mandatory disclosure can suppress self-disclosure and amplify negative emotional tone in privacy-sensitive settings, offering practical guidance for users, platform designers, and policymakers on implementing transparency features responsibly.

Keywords: mandatory IP location disclosure; shared emotions; regression discontinuity in time; sentiment analysis; social media



Academic Editors: Eleni Vrochidou,
George A. Papakostas and Ioannis
Tsimperidis

Received: 11 December 2025

Revised: 2 January 2026

Accepted: 7 January 2026

Published: 9 January 2026

Copyright: © 2026 by the authors.

Licensee MDPI, Basel, Switzerland.

This article is an open access article distributed under the terms and conditions of the [Creative Commons Attribution \(CC BY\)](https://creativecommons.org/licenses/by/4.0/) license.

1. Introduction

The rise in social media has significantly transformed the way people interact and communicate. As one of China's mainstream social media platforms, Weibo boasts over 253 million daily active users. With such a vast user base, various topics can be rapidly produced and disseminated, leading to intense public opinion propagation and the widespread spread of rumors. In April 2022, Chinese online social platforms announced the implementation of a mandatory IP location disclosure feature, with Weibo officially launching this feature on 28 April 2022. When users post content, they are required to display their province/region or country. Although the platform stated that this feature only discloses

regional-level information and does not compromise user privacy, some users still expressed concerns. The mandatory disclosure of personal information may affect users' sharing behaviors, but its specific impact remains unclear.

Despite the rapid deployment of mandatory IP location disclosure across Chinese social media platforms, its downstream consequences for users' expressive behavior remain debated. A key challenge is causal identification: changes in online emotion may be driven by concurrent events, evolving platform governance, or shifting topic dynamics rather than the disclosure policy itself. In addition, emotion is difficult to measure at scale and may be subject to measurement noise in social media text. Moreover, the emotional consequences of mandatory disclosure may vary across contexts. In privacy-sensitive domains such as mental health discussions, where users often seek anonymity to share stigmatized experiences, reducing perceived anonymity through IP location cues may amplify privacy concerns and alter emotional expression patterns. These challenges motivate a quasi-experimental approach that leverages the policy rollout as an exogenous shock and evaluates local changes in emotional expression around the implementation threshold.

In the context of social media, information disclosure can be categorized into active disclosure and passive disclosure. Active disclosure, also known as self-disclosure, refers to users voluntarily sharing personal information and content, such as profiles, status updates, photos, videos, location, and interests [1]. This is often associated with positive emotional experiences, enhancing user engagement and interaction [2]. In contrast, passive disclosure involves the unintentional or forced leakage of personal information, which may lead to feelings of violation and distrust [3] and could affect users' trust in and frequency of platform usage [4]. The impact of passive disclosure is particularly complex, potentially causing social fatigue, reducing user satisfaction [5], and prompting users to take protective measures [6]. Understanding these effects is crucial for platform designers and policymakers to strike a balance between user experience and privacy protection, fostering the healthy development of social media.

Weibo's mandatory IP location disclosure falls under passive disclosure, sparking privacy-related controversies [7]. Prior to the implementation of this policy, social platforms typically offered a high degree of anonymity, allowing users to decide the extent of their personal information disclosure. However, this also led to frequent occurrences of cyberbullying and rumors [8]. The enforcement of the mandatory disclosure policy has, to some extent, reduced anonymity and improved transparency, which has had varying impacts on user behavior and perception. Prior studies on information disclosure distinguish between active self-disclosure and passive or mandatory disclosure, emphasizing consequences for trust, engagement, and privacy-protection behaviors. Emerging research on IP location visibility and related identity cues on social media has largely examined behavioral outcomes such as incivility, harassment, discrimination, or engagement, and some scholars have evaluated the effects of Weibo's IP location disclosure policy [7–10]. However, evidence remains limited regarding how mandatory IP disclosure shapes the emotional tone and intensity of user-generated content, and whether effects differ between negative and positive emotions. While existing studies provide important insights into how location cues shape online interactions, less is known about how mandatory IP location disclosure affects users' emotional expression itself—namely, whether and how the valence and intensity of expressed emotions shift when a platform reduces perceived anonymity.

Addressing this gap, this study examines the implementation of Weibo's mandatory IP location disclosure policy on 28 April 2022, and addresses the following research question: How does mandatory IP location disclosure affect users' shared emotions and posting behavior in a privacy-sensitive context? We focus on the depression topic as a representative privacy-sensitive domain and causally estimate the local effect of mandatory IP location

disclosure on both negative and positive sentiment using a regression discontinuity in time (RDiT) design. Specifically, this study utilizes the implementation time of the IP location disclosure feature on Weibo as a natural breakpoint, collecting post data and employing regression discontinuity analysis to explore the influence of this function on users' shared emotions. The results indicate that after release of the IP location disclosure feature, the emotional intensity of posts shared by users in a negative emotional state increased. In contrast, the effect on positive sentiment was comparatively weak and mostly statistically insignificant. Robustness tests using polynomial orders and optimal bandwidth further confirmed the significant impact of this feature on user emotions.

The contributions of this research are threefold. First, we provide large-scale causal evidence on the emotional consequences of mandatory IP location disclosure using 193,761 Weibo posts collected around the policy implementation; to the best of our knowledge, this is the first study to quantify the direct impact of mandatory location disclosure on sentiment intensity in a privacy-sensitive social media context. Second, we employ a regression discontinuity in time (RDiT) design to estimate the local causal effect of the policy implementation on sentiment intensity, complemented by multiple robustness checks (alternative bandwidths, polynomial orders, placebo tests, and covariate balance tests), which addresses the causal identification challenge and reduces confounding from concurrent trends. Third, we derive actionable implications for privacy-sensitive feature design and policy implementation on social media platforms, including recommendations on location-display granularity, topic-aware protections, and post-implementation monitoring of unintended emotional consequences.

The remainder of the paper is organized as follows. Section 2 reviews related literature and develops hypotheses. Section 3 describes data collection, sentiment measurement, and the RDiT design. Section 4 presents empirical results and robustness checks. Section 5 discusses findings, theoretical and practical implications, limitations, and directions for future research.

2. Literature Review and Hypothesis Development

In the field of user behavior research, information disclosure has always been one of the primary concerns for scholars. Information disclosure refers to the act of revealing any personal information during interactions with others [11,12]. In the context of social media, information disclosure can be divided into active disclosure and passive disclosure. Active disclosure typically involves users voluntarily sharing personal information to express themselves, interact with others, or seek social feedback. When using social media, users actively post personal information and comment on or share content of interest. Through such activities, other users may infer location, preferences, and personality traits, which can facilitate friendship formation and relationship maintenance [13]. Passive disclosure, on the other hand, involves the unintentional or forced leakage of personal information, including metadata automatically collected by platforms, such as browsing history, click behavior, device information, and geographic location, as well as data obtained through cookies and other tracking technologies. Additionally, to use certain features or services, users may be required to provide specific personal information, such as phone numbers and email addresses, which is also a form of mandatory disclosure [14]. These two forms of information disclosure have significant impacts on users' emotions and behaviors.

Active disclosure is often associated with positive emotional experiences. By sharing personal content, users may feel satisfaction, achievement in self-expression, and joy in connecting with others [2]. These positive emotions may further enhance user engagement, promoting more interactions and content generation. Moreover, self-disclosure also helps form intimate relationships and increases the social recognition and acceptance of

individual ideas [15]. Positive and interesting self-disclosure also strengthens the sense of connection among social friends [16]. Chu et al. (2023) further confirmed through meta-analysis that self-disclosure is positively correlated with the psychological well-being of social media users [17]. However, active disclosure may also lead to negative emotions, such as regret [18] or anxiety, especially when privacy is violated or information is misused [19]. Ostendorf et al. (2020) also pointed out that false self-disclosure behaviors of social media users have direct and significant negative impacts on audience cognition, emotions, and decision-making [20]. More importantly, excessive self-disclosure may lead to social fatigue [5], reducing user satisfaction, loyalty [21], and increasing discontinuation use [22]. Additionally, some studies have explored the antecedents of self-disclosure among social media users. For example, Zhang et al. (2023) has found that self-presentation, reciprocity, and the social influence of using social media increase WeChat users' self-disclosure behaviors [23]. Wang et al. (2017) identifies monetary rewards and social rewards as key antecedents of self-disclosure intention in mobile social networking, with social rewards uniquely driving disclosure honesty [24]. Additionally, drawing on conservation of resources theory, Zhang et al. (2019) reveals that role stress on social media platforms can positively influence self-disclosure by motivating users to invest social resources (e.g., relationship maintenance and self-presentation) [15], challenging the conventional view of stress solely reducing online engagement.

The emotional impact of passive disclosure on users is more complex. Yu and Margolin (2024) and Yang and Xu (2023) found that the policy not only improved the overall emotional valence, readability, and empathy of comments, but also significantly suppressed emotional polarity in comments, while simultaneously exacerbating regional discrimination within them [25,26]. Moreover, passive disclosure can make users feel violated or deprived of control when platforms collect personal information without explicit consent [3]. Such negative emotions may erode trust in the platform, leading to reduced usage frequency or migration to alternative services [4]. Behaviorally, passive disclosure may prompt users to adopt protective measures, such as adjusting privacy settings, limiting information sharing, or even withdrawing from the platform entirely [6]. Users may also manage their online behavior more cautiously to reduce the risk of further information leakage. Therefore, both active and passive information disclosure in social media contexts exert multifaceted influences on users' emotions and behaviors. Understanding these effects is crucial for platform designers and policymakers to balance user experience with privacy protection and to promote the healthy development of social media. However, existing research has primarily focused on the antecedents and outcomes of self-disclosure among social media users, with relatively little attention to mandatory disclosure, particularly its effects on user behavior and emotions. The research of Aboulnasr et al. (2022) also calls for strengthening the study of the impact of passive disclosure on user emotions and behavior [27].

The IP location disclosure function introduced by Sina Weibo in April 2022 constitutes passive information disclosure for users, intended to reduce uncivil behavior on the platform and maintain a clear online space. Santana (2014) demonstrated, by comparing anonymous online newspaper forums with real-name news websites, that anonymity in social networks significantly increases uncivil behavior [28]. Hu et al. (2023) likewise confirmed that Weibo's IP localization policy has an inhibitory effect on user uncivil behavior, reflected in more stable emotional tone in comments; however, the policy also significantly increased issues of regional discrimination [29]. In addition, emotional sharing is one of the primary motivations for using social media, with most users frequently sharing both positive and negative emotions on platforms. Research has found that, compared with non-depressed users, depressed users receive more social support when sharing content with negative emotions [30]. However, emotional sharing carries risks, as other users

may form negative evaluations based on the content shared and the sharer's personal information. Existing studies indicate that motivations for emotional sharing are influenced by internal factors such as gender, age, and personality traits [31], as well as external factors such as platform control and sense of belonging [32]. Platform control refers to the user's ability to modify and control others' access to their information on the platform, while sense of belonging refers to the number of other users connected to the focal user on the platform [33]. From the perspective of these external factors, mandatory IP location disclosure on Weibo may lead users to feel unable to modify or control others' access to their IP location information, thereby reducing their willingness to share.

In summary, prior research on IP localization and location cues has predominantly focused on (i) civility, toxic language, and other forms of uncivil behavior; (ii) discrimination, stereotyping, and regionalized rhetoric; and (iii) participation and engagement responses such as posting frequency, interaction intensity, and self-censorship. In contrast, we examine how mandatory IP location disclosure reshapes the emotional tone of user-generated content. Specifically, we treat expressed emotions (sentiment valence and intensity) as a primary outcome and test whether the policy generates asymmetric effects on negative versus positive sentiment in a privacy-sensitive context. By shifting the analytical focus from interaction quality or prejudice to emotion intensity, our study extends the IP localization disclosure literature.

Furthermore, IP location constitutes a privacy concern for Weibo users [7]. De-anonymization, indicating mandatory disclosure of personal information, may cause users to feel their privacy has been violated, thus diminishing their willingness to share. For example, Cho and Kwon (2015) found that some potential commenters may refrain from posting due to the risks associated with de-anonymization [34]. Bansal and Gefen (2010) argued that reasonable privacy policies can enhance user trust in the platform and thereby increase willingness to disclose information, while the degree of protection, clarity of notification, and permission acquisition stipulated in the policy directly affect disclosure intentions [35]. Posting microblogs is the primary form of sharing on Weibo and the main channel for information disclosure. The mandatory IP location disclosure function forces every post to display the user's IP location. Privacy calculus theory posits that individuals engage in rational evaluation before disclosing personal information, tending to disclose when perceived benefits outweigh perceived risks, and to withhold otherwise [36,37]. Consequently, when anonymity is reduced, users may feel they have lost personal information, becoming less willing to share content or shortening their posts to avoid revealing more personal information. Accordingly, the following hypotheses are proposed:

H1. *Under negative emotional states, the emotional intensity of users shared content is positively influenced by mandatory IP location disclosure, such that negative content becomes more negative.*

H2. *Under positive emotional states, the emotional intensity of users shared content is negatively influenced by mandatory IP location disclosure, such that positive content becomes less positive or even turns negative.*

3. Research Design

This study employed a crawler script written in Python 3.6.6 to accurately obtain Weibo posts related to the topic of depression that were posted before and after the implementation of the mandatory IP location disclosure function. Each Weibo post is regarded as an independent sample. Subsequently, an emotion analysis method is applied to assign an emotion score to each post, so as to accurately measure users' sharing emotions. Finally, the regression discontinuity method is employed to deeply explore the causal relationship and

mechanism between the implementation of the mandatory IP location disclosure function and social media users' sharing emotions.

Although the Difference in Differences method (DID) is widely used in empirical research to evaluate policy effects, given the endogenous issues of most policies in China, there are often systematic differences between the treatment and control groups, which may lead to biased estimation results when directly applying the DID [38]. Regression Discontinuity Design (RDD) is a commonly used policy evaluation method in the field of economics [39], typically used to explore the effects of strategies implemented on the same date for all subjects. This method leverages the logic of local randomized experiments, effectively addressing the endogeneity of treatment status and more accurately determining causal relationships between variables [40]. Its core lies in the fact that policy rules are usually based on the threshold of a continuous variable to determine whether an individual receives treatment. Near the threshold, other characteristics of individuals change continuously, allowing us to attribute changes in the outcome variable at the threshold to the policy's impact [41,42]. This study confirmed that users' other characteristics are continuous (as verified in Section 4.2) before and after the feature's launch allows us to infer causality by comparing changes in users' emotional intensity before and after the launch using RDD. Therefore, the current study employs the RDD method to explore the impact mechanism of the implementation of the mandatory IP location disclosure function on Weibo users' emotional sharing. Given that self-reporting methods are difficult to obtain users' true views on external information, and the measurement results are highly subjective [43], this study adopts sentiment analysis to measure the true emotional intensity of users' shared content, capturing their genuine views on the mandatory IP location disclosure feature. The present study takes the *IP Location Feature Upgrade Announcement* published by @Weibo Administrator on 28 April 2022 (<https://finance.sina.com.cn/wm/2022-04-28/doc-imcwipii6982917.shtml?cref=cj>, accessed on 5 March 2023) as the time of the full launch of the mandatory IP location disclosure feature, collecting Weibo post data from two months before and after this date as the sample data to reveal the impact of the mandatory IP location disclosure policy on users' emotional sharing.

3.1. Data Collection

The study used the search function and preset cookies on Weibo.com, along with a Python-designed crawler script, to collect 267,425 Weibo posts published by users under the depression topic between 1 March 2022, and 30 June 2022, with each post as a sample. We focus on depression-related discussions for three reasons. First, mental health is a privacy-sensitive and potentially stigmatized topic; thus, mandatory IP location disclosure plausibly raises perceived identifiability and privacy costs, making it a theoretically meaningful context to examine privacy-expression trade-offs. Second, depression-related posts tend to contain rich emotional content, which improves the signal for analyzing changes in shared emotions. Third, the topic exhibits relatively stable activity during our observation window, which supports the use of a time-based discontinuity design to identify the policy shock. After filtering for duplicates and missing values, 193,761 valid Weibo posts were retained, including fields such as the posting time, username, posts, IP location, number of likes, number of comments, and number of reposts.

Sentiment analysis, a crucial application within the realm of natural language processing, is dedicated to discerning the emotional polarity of text, classifying it as positive, negative, or neutral. Sentiment analysis has become a key technology for understanding and mining user emotions. Conducting sentiment analysis on user-shared content (i.e., Weibo posts) can reveal users' true attitudes toward a specific topic. Among the current

sentiment analysis methods, the pysenti library is widely used for analyzing the sentiment polarity of Chinese texts. Therefore, we measured sentiment using pysenti, a Chinese dictionary- and rule-based sentiment scoring tool. The procedure consists of Chinese word segmentation, matching tokens to a polarity lexicon, and applying rule-based adjustments for negation terms, degree adverbs, punctuation, and conjunction patterns to obtain an overall sentiment score for each post. Higher sentiment scores indicate more positive emotional tone, whereas lower scores indicate more negative tone. This method effectively determines the positive, negative, or neutral sentiment tendencies of a large volume of Chinese text. To capture user sentiment, Study 1 utilized Python to call the pysenti library for sentiment analysis on 193,761 valid blog posts. The descriptive statistics of the data are shown in Table 1, where a higher sentiment score indicates a more positive sentiment in the blog post, and a lower score indicates a more negative sentiment. In the actual data analysis, the numerical range was controlled within a certain limit, and values exceeding this range were directly set to the threshold.

Table 1. Descriptive Statistical Analysis of the Data.

Field	Observation	Mean	Standard Deviation	Minimum	Maximum
Sentiment Score	193,761	−4.991	23.1409	−500	500
Text Length	193,761	58.68	90.9892	2	996
Number of Likes	193,761	9.257	466.888	0	118,058
Number of Comments	193,761	2.749	33.7811	0	7579
Number of Reposts	193,761	1.415	115.587	0	27,454
Number of User Verifications	193,761	0.165	0.56663	0	3

To assess face validity of the sentiment measure in our setting, we conducted additional checks. Specifically, we manually inspected a random sample of posts across the pre- and post-policy windows to confirm that posts with lower scores indeed convey more negative emotions in context. We acknowledge that dictionary-based sentiment approaches can be biased in social media contexts due to evolving slang, sarcasm, and context-dependent meanings. Such measurement noise may attenuate effect sizes. Importantly, our identification strategy compares posts in a narrow time window around the policy threshold, which helps mitigate slow-moving language drift.

3.2. Model Construction

RDD method initially primarily used cross-sectional data as research samples. However, with widespread application of RDD, sample selection has gradually expanded to include time series data or panel data. This combination of time series data with RDD is known as Regression Discontinuity in Time (RDiT). Hausman and Rapson (2018) has confirmed the feasibility of RDiT and provided general application recommendations, and RDiT has gradually been applied in the field of online user behavior [44]. For example, Shan et al. (2022) employed RDiT to examine the impact of Twitter’s identity anonymization policy [45], which was implemented on 22 November 2021, on crowdsourced fact-checking contributions within the Birdwatch program. Wang et al. (2019) investigated the effects of numerical versus graphical (half-star) presentations of consumer reviews on sales using data from Meituan.com [46]. Given that the mandatory IP location disclosure feature was rolled out fairly to all Weibo users at the same time, it was impossible to find users unaffected by the feature change. User posts before the feature’s launch were not affected by IP location disclosure, while posts after the launch were affected. Therefore, this study

employs the implementation date of the mandatory IP location disclosure feature (28 April 2022) as the discontinuity point in an RDD. Following the RDiT guidance in Hausman and Rapson (2018) [44] and standard RDD practice of Lee and Lemieux (2010) [40], this study used the launch date of the mandatory IP location disclosure feature as the discontinuity point to explore its impact on user-shared emotions, constructing the following RDiT model (first-order polynomial form) as shown in Equation (1).

$$Y_t^n = \alpha + \beta(t - c) + \gamma * Treatment * (t - c) + h(t) + \delta X_t + e_t \quad (1)$$

Here, c represents the launch date of the mandatory IP location disclosure feature, t represents the posting time of each Weibo post, and all posts with $(t < c)$ are considered unaffected by the feature, while all posts with $(t > c)$ are considered affected. Y_t is the sentiment value of the sample Weibo posts on day t , X_t represents other covariates, $h(t)$ controls any unobserved time-varying factors (in polynomial form), and it is assumed that unobserved factors are smoothly related to sentiment changes over time within this time range. Additionally, it is necessary to ensure that the Y_t is only influenced by the discontinuity point, meaning that $h(t)$ and X_t are smooth and continuous around the discontinuity point. To verify the impact of the mandatory IP location disclosure feature on the daily average sentiment value of the topic, the driving variable γ needs to be estimated. When $t > c$, it indicates treatment, meaning $Treatment = 1$, otherwise $Treatment = 0$.

Before conducting formal analysis, it is necessary to validate the applicability of the RDD, meaning by verifying the absence of manipulation in the assignment variable [40,44]. Existing literature on RDD mainly prescribes two principal diagnostic tests for RDD applicability: First, the self-selection test evaluates whether individuals can autonomously choose to be affected by the mandatory IP location disclosure feature. Second, the covariate balance tests on covariates not subject to treatment to ensure there is no jump around the discontinuity point. This study also conducted applicability tests from these two aspects. Firstly, based on the feature launch date and update logs, it is clear that users could not know in advance when the feature would be launched or prepare and respond accordingly. Therefore, it is reasonable to assume that individuals could not intervene around the discontinuity point. Secondly, in terms of the covariate balance test, it is necessary to ensure the local randomness of the posted content, meaning observable covariates should be continuous around the discontinuity point. Specifically, we conducted a balance test on covariates such as number of likes, number of comments, number of reposts, content length, and user verification for samples from two months before and after the feature launch, to determine whether there was a significant jump in covariates around the discontinuity point. The test results are shown in Table 2. From Table 2, it can be seen that there is no significant difference in covariates on either side of the discontinuity point. Therefore, it is reasonable to conclude that RDD is applicable in this study.

Table 2. Balance test on covariates around the discontinuity point.

Covariates	Coef.	Std.Err.	z	$p > z $	95% Conf.	Interval
Number of likes	−1.00207	2.62561	−0.38	0.703	−6.14817	4.144033
Number of comments	0.044141	0.435408	0.1	0.919	−0.80924	0.897526
Number of reposts	−0.00641	0.428572	−0.01	0.988	−0.8464	0.833576
Content length	2.74595	3.069731	−0.89	0.371	−8.76252	3.270608
User verification	0.013108	0.018993	0.69	0.49	−0.02412	0.050334

4. Data Analysis and Results

4.1. Regression Discontinuity Analysis Results

The sentiment values of user posts two months before and after the launch of the mandatory IP location disclosure feature were scored and classified as positive (sentiment value greater than 0) or negative (sentiment value less than 0), with corresponding regression plots drawn. The results are shown in Figure 1, where panels (a–d) show the results of regression discontinuity analysis for negative sentiment content, and panels (e,f) show the results for positive sentiment content. In Figure 1, the x -axis represents the time interval (two months before and after the feature launch), and the y -axis represents the sentiment change in the sample posts based on the sentiment dictionary method. The x -axis value of 0 represents the discontinuity point on 28 April 2022, with the left side showing the emotional intensity of user posts before the feature launch and the right side showing the emotional intensity after the feature launch. The results indicate that with the launch of the mandatory IP location disclosure feature, there is a certain downward jump in the sentiment of posted content, meaning the mandatory IP location disclosure feature has a certain negative impact on the sentiment of user posts. This means that negative sentiment posts become more negative, while positive sentiment posts become less positive or even negative. The results only reveal the impact of mandatory IP location disclosure on the sentiment of user-generated posts from a macro perspective. Further multi-stage regression discontinuity analysis is required to verify the actual effects of the discontinuity point.

To further uncover the true impact of the mandatory IP location disclosure feature on the negative and positive sentiment of user-generated posts, the estimation results of negative and positive sentiment over time under the precise regression discontinuity model were examined sequentially. Table 3 presents the estimation results of negative sentiment over time under the precise regression discontinuity model. Column (1) shows the regression results under the baseline model, indicating that the overall intensity of negative sentiment of user posts decreased by approximately 1.3506 after the implementation of the mandatory IP location disclosure feature. Column (2) displays the results after replacing the triangular kernel with a rectangular kernel, eliminating the influence of higher weights near the discontinuity, with a coefficient of -1.4351 , slightly lower than that in Column (1). Column (3) presents the results of the RDD with the local polynomial order of the point estimate set to 3. Column (4) shows the results of the RDD after including covariates. Column (5) presents the results of the RDD using a global polynomial. All the above results are significant, indicating that after the implementation of the mandatory IP location disclosure feature, the intensity of negative sentiment in user-shared posts decreased to some extent. The estimated discontinuity is negative and statistically significant, indicating that mandatory IP location disclosure reduces sentiment scores, i.e., the emotional tone of posts becomes more negative immediately after the policy implementation. Therefore, mandatory IP location disclosure has a certain positive impact on the negative sentiment of user posts on Weibo, which means that this feature leads to a decrease in the sentiment score (i.e., posts become more negative), thereby supporting H1. The estimation of positive sentiment over time under the precise regression discontinuity model was examined using the same method, and the results are shown in Table 4. Except for Column (5), all results are insignificant, indicating that the impact of mandatory IP location disclosure on positive sentiment is weak. Even after including covariates, a significant decrease in sentiment score emerged, suggesting that the intensity of positive sentiment in user-shared posts may not only be influenced by mandatory IP location disclosure but also by other variables. H2 is not supported.

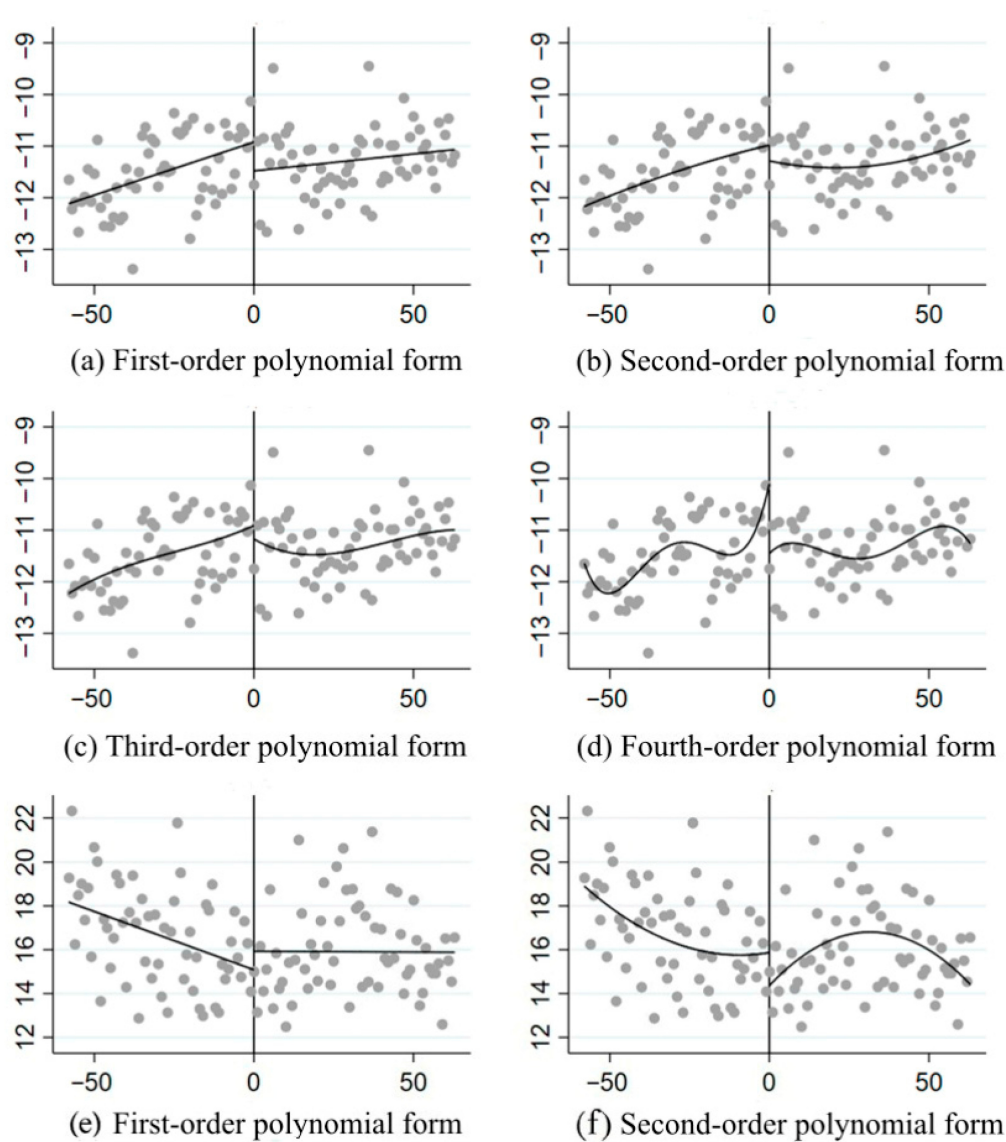


Figure 1. Scatter plot of RDD.

Table 3. Baseline model estimates of IP disclosure on negative sentiment intensity.

	(1)	(2)	(3)	(4)	(5)
Dependent variable	Sentiment Intensity (Negative)				
Time	−1.3506 *** (0.43712) ¹	−1.4351 *** (0.45194)	−1.5752 *** (0.56562)	−0.81979 *** (0.3761)	−0.4598 ** (0.1987)
Criterion	MSE	MSE	MSE	MSE	MSE
Optimal Bandwidth	10.79	9.47	22.51	10.51	63
Kernel function	Triangular kernel function	Rectangular kernel function	Triangular kernel function	Triangular kernel function	Triangular kernel function
Sample observations	156,889	156,889	156,889	156,889	156,889
Whether to add covariates	No	No	No	Yes	No

Notes: ** and *** represent statistical significance levels of 5% and 1%, respectively; ¹: The standard error of date clustering is in parentheses, and the same applies to the following Tables 4–8.

Table 4. Baseline model estimates of IP disclosure on positive sentiment intensity.

	(1)	(2)	(3)	(4)	(5)
Dependent variable	Sentiment Intensity (Positive)				
Time	−1.0199 (1.1105)	−0.93869 (1.139)	−0.18179 (1.9128)	0.48307 (0.74262)	−0.05535 ** (0.62108)
Criterion	MSE	MSE	MSE	MSE	MSE
Optimal Bandwidth	17.53	16.13	21.72	21.10	63
Kernel function	Triangular kernel function	Rectangular kernel function	Triangular kernel function	Triangular kernel function	Triangular kernel function
Sample observations	36862	36862	36862	36862	36862
Whether to add covariates	No	No	No	Yes	No

Notes: ** represents statistical significance level of 5%.

Table 5. Robustness tests (Parameter Estimation).

Panel 1 Parameter Estimation				
	(1)	(2)	(3)	(4)
	Linear Regression Results	Quadratic Polynomial Regression Results	Quartic Polynomial Regression Results	Bandwidth Extended to 16 Days
Emotional Intensity	−1.3506 *** (0.43712)	−1.4346 *** (0.46183)	−1.4086 ** (0.61669)	−1.4823 ** (0.67385)
Bandwidth Value	10.79	21	29	16
Number of Observations	156,889	156,889	156,889	156,889

Notes: **, and *** represent statistical significance levels of 5%, and 1%, respectively.

Table 6. Robustness Test (Nonparametric Estimation).

Panel 2 Nonparametric Estimation			
	(1)	(2)	(3)
	1.25 × Optimal Bandwidth	1.5 × Optimal Bandwidth	2 × Optimal Bandwidth
Conventional	−1.268 *** (0.40313)	−1.0706 *** (0.37493)	−0.80907 ** (0.32835)
Bia-corrected	−1.5164 *** (0.40313)	−1.6123 *** (0.37493)	−1.4324 *** (0.32835)
Robust	−1.5164 *** (0.55028)	−1.6123 *** (0.51129)	−1.4324 *** (0.46013)
Number of Observations	156,889	156,889	156,889

Notes: **, and *** represent statistical significance levels of 5%, and 1%, respectively.

These results suggest that the mandatory IP location disclosure feature exhibits a statistically significant positive association with elevated negative sentiment in user-generated posts, potentially leading to increased negativity in user posts compared to pre-intervention baselines. The main reason may be that IP location information involves personal privacy, and the mandatory IP location disclosure may lead users to feel that their privacy is violated [7,47]. Additionally, users may reduce their willingness to self-disclose and share content as the level of detail in location tags increases [48–50]. The sample Weibo data we collected also corroborates that the implementation of the mandatory IP location disclosure feature leads to a reduction in user sharing. The average daily number of Weibo posts before the feature was implemented was 1425, which decreased to 1160 after the feature was implemented, with a significant T-test result ($p < 0.01$). The average daily data for

positive sentiment also decreased from 324 to 281. Furthermore, the average text length of posts under negative sentiment decreased from 49 to 47, and under positive sentiment, it decreased from 109 to 100, with significant T-test results ($p < 0.01$). In summary, when social media users are required to display their IP location, they tend to reduce the length and quantity of their posts. Additionally, Weibo allows some users to set the visibility of shared content to within the past six months, so it can be inferred that the actual number of posts is even lower than before the implementation of the IP location feature.

Table 7. Placebo test.

Release Date	Covariates	Linear Regression (No Covariates)	Linear Regression (with Covariates)	Quadratic Polynomial Regression (No Covariates)	Quadratic Polynomial Regression (with Covariates)
Panel 1: Treatment time shifted 10 days earlier	Sentiment Intensity	0.15693 (0.5169)	−0.00172 (0.4503)	−0.234 (0.69868)	−0.4695 (0.66266)
	Bandwidth	11.59	11.71	14.41	12.50
	Number of Observations	156,889	156,889	156,889	156,889
Panel 2: Treatment time shifted 10 days later	Sentiment Intensity	−0.829 (0.43456)	0.02551 (0.38125)	0.02914 (0.55096)	0.1461 (0.4849)
	Bandwidth	12.896	12.28	18.726	18.12
	Number of Observations	156,889	156,889	156,889	156,889

Table 8. Donut test.

	Deleted 1 Day	Deleted 1 Day	Deleted 2 Days	Deleted 2 Days	Deleted 3 Days	Deleted 3 Day
Sentiment Intensity	−1.3452 *** (0.5036)	−1.4975 *** (0.54732)	−1.849 ** (0.79105)	−2.6759 *** (1.0312)	−2.1104 *** (1.1295)	−2.4121 ** (1.2639)
Bandwidth	10.422	20.16	10.452	16.715	8.646	16.732
Number of Observations	155,656	155,656	153,053	153,053	150,398	150,398
Polynomial order	first-order	Second-order	First-order	Second-order	First-order	Second-order

Notes: **, and *** represent statistical significance levels of 5%, and 1%, respectively.

4.2. Robustness Tests

Common robustness tests mainly include whether variables are manipulated, inclusion of covariates, non-parametric estimation, parametric estimation, placebo tests, and donut tests [40,51]. Since we have already completed tests for variable manipulation and covariates in Section 4.1, this section primarily examines robustness by changing the settings of RDD and testing the sensitivity of RDD results to model specification and estimation methods. Specifically, since only H1 is supported, this study uses different polynomial orders, expands the sample range, includes covariates, and employs the donut regression discontinuity method to test the robustness of RDD results for the intensity of negative sentiment in user-shared posts.

Table 5 presents the results of robustness tests under parametric estimation. The following methods all use the triangular kernel function for RDD testing. Columns (1), (2), and (3) use linear, quadratic, and quartic fitting analyses, respectively. Column (4) tests the linear regression by expanding the bandwidth to reduce sensitivity around the discontinuity. The results in all four columns explain that after the implementation of the mandatory IP location disclosure feature, the intensity of negative sentiment in user

posts shows results similar to those in Table 3, indicating that the impact of the mandatory IP location disclosure feature on the intensity of negative sentiment in user-shared posts is robust.

Table 6 presents the non-parametric estimation results of the impact of the mandatory IP location disclosure feature on the intensity of negative sentiment in user-shared posts. This study selects a linear regression model with a triangular kernel function for non-parametric estimation and chooses the optimal bandwidth based on the method of minimizing mean squared error (MSE). The results for $1 \times$ optimal bandwidth are already shown in Column (1) of Table 3. Columns (1), (2), and (3) of Table 6 show the impact of the mandatory IP location disclosure feature on the intensity of negative sentiment in user-shared posts under expanded optimal bandwidths ($1.25 \times$, $1.5 \times$, and $2 \times$), while also presenting the regression results for conventional standard errors, bias-corrected standard errors, and robust standard errors. The results show that under different bandwidths and standard errors, the regression coefficients of the mandatory IP location disclosure feature are significantly negative, ranging between -0.8 and -1.48 , which is similar to the baseline model results and the robustness test results under parametric estimation, further ensuring the robustness of the empirical results.

Additionally, to verify that the release date of the mandatory IP location disclosure feature (28 April 2022) is the main influencing factor, this study also conducted a placebo test. This study chose to shift the release date forward and backward by 10 days and performed RDD tests, with the results shown in Table 7. Panel 1 demonstrates that advancing the IP location disclosure feature implementation date by 10 days (to 18 April 2022) yields statistically insignificant treatment effects across both linear and quadratic polynomial specifications, regardless of covariate inclusion. This indicates that there was no significant change in the negative sentiment of user-generated posts around 18 April 2022, suggesting that the implementation of the IP location feature 10 days earlier did not affect users. This result further corroborates the impact of the IP location feature on the negative sentiment of user-shared posts. On the other hand, as shown in Panel 2, delaying the release of the IP location feature by 10 days yields the same test results.

Finally, to prevent data from being overly concentrated around the feature release date and to address the potential manipulation of overall results by data from the days immediately before and after the release due to the use of the triangular kernel function in RDD, this study also employs a donut test to eliminate the influence of data from the days immediately before and after the release. Specifically, data from 1 day, 2 days, and 3 days before and after the release date are deleted, and the test results are shown in Table 8. The results indicate that sentiment intensity is still affected by the mandatory IP location disclosure feature, but as the deletion range and polynomial order change, the degree of sentiment change fluctuates. This may be due to the larger weights assigned to data points near the cutoff by the triangular kernel function, combined with significant daily variations in the sentiment of user-generated posts. These combined effects lead to differential changes when data from different dates are deleted. However, the overall results are consistent with the baseline model, further validating that mandatory IP location disclosure has a statistically significant effect on the negative emotional tone of user-generated Weibo posts.

5. Discussion

5.1. Findings

This study aims to reveal how the mandatory IP location disclosure feature affects the sentiment of social media users' shared content and to explain the series of privacy concerns triggered by the implementation of this feature on social media platforms. Taking the release date of the mandatory IP location disclosure feature on Weibo, 28 April 2022,

as the discontinuity point, this study collected 193,761 Weibo posts under the depression topic published between 1 March 2022, and 30 June 2022, using Python web scraping as the sample data. By combining sentiment analysis and regression discontinuity methods, this study explores the impact of the mandatory IP location disclosure feature on the negative and positive sentiment of user-shared content.

Firstly, this study indicates that after the implementation of the mandatory IP location disclosure feature, the intensity of negative sentiment in user-shared content increased, and the content became more negative. This finding is consistent with prior research demonstrating that heightened visibility and traceability in online environments can amplify users' psychological discomfort and lead to more emotionally charged expressions. For instance, Yang and Xu (2023) found that Weibo's IP location tagging policy significantly suppressed cross-regional engagement and increased regionally discriminatory replies, suggesting a shift in perceived social boundaries and communicative norms [26]. Similarly, Zhu (2024) observed that mandatory geolocation disclosure triggered a rise in privacy cynicism and emotional withdrawal, particularly among users discussing politically sensitive topics [52]. The reason for this result may lie in the fact that IP location is a privacy concern for users [7,34]. Furthermore, these results align with the broader literature on surveillance-induced behavioral inhibition, where users tend to self-censor or emotionally neutralize their content when perceiving increased monitoring [3,6]. However, the present study reveals a somewhat paradoxical effect: rather than suppressing negativity, the policy appears to have intensified it. One possible explanation is that the perceived loss of anonymity may provoke defensive or oppositional emotional responses, especially in contexts where users feel constrained or unfairly exposed. This suggests that mandatory location disclosure not only alters the informational structure of online platforms but also reshapes the affective dynamics of user interaction. Although the original intention of implementing the mandatory disclosure feature was to reduce online rumors and maintain a healthy online space, it led to the forced exposure of users' privacy information when sharing content, causing user concerns and resulting in more negative emotions.

Secondly, the impact of mandatory IP location disclosure on the positive sentiment of user-generated Weibo posts is weaker, and even shows a statistically significant effect after including covariates. This suggests that the intensity of positive sentiment in user-shared content may not only be influenced by the mandatory IP location disclosure but also by other variables, such as age [18]. Moreover, this finding also indicates that the impact of mandatory IP location disclosure on negative and positive emotions is asymmetric. Negative sentiment becomes more pronounced around the disclosure threshold, whereas positive sentiment is comparatively less responsive. Several mechanisms may explain this pattern. One explanation is that depression-related conversations are inherently skewed toward negative experiences and help-seeking, yielding a lower base rate of strongly positive expressions and, consequently, less statistical power to detect shifts in positive tone. Another possibility is that, in a privacy-sensitive context, negative expression may be driven by pressing psychological needs (e.g., venting or seeking support) and therefore less substitutable, while positive expressions may be more easily postponed or expressed through less revealing channels. A further mechanism is selective silence: users with milder or more neutral/positive content may be more likely to stop posting, leaving a post-policy composition that is relatively more negative even if positive sentiment among remaining posts changes little. These mechanisms are consistent with privacy calculus arguments, but future work using user-level panels and multi-topic comparisons is needed to separate behavioral change from compositional shifts.

Finally, after the implementation of the mandatory IP location disclosure feature, the length and quantity of user-shared content decreased to some extent. The reason may be

that the mandatory IP location disclosure significantly reduced users' willingness to share. As Guo et al. (2020) pointed out, since IP location disclosure is related to personal location information disclosure, and such disclosure has been found to be associated with privacy concerns [53]. Therefore, the increase in the degree of personal information disclosure under the same circumstances reduces users' willingness to share, leading to a decrease in the quantity and length of user-shared content. Additionally, we note that although the amount of user-shared content decreased, the intensity of negative content became more negative. This may be because, overall, the implementation of the mandatory IP location disclosure feature led to a significant reduction in sharing frequency among users with low platform loyalty, while users with higher loyalty tended to share more negative content. Furthermore, topic sensitivity may also shape how users respond to mandatory disclosure. In mental health discussions, users may be particularly concerned about being recognized offline or being judged by others, which can encourage self-censorship or reduced self-disclosure. At the same time, users who continue posting may do so because of stronger needs for help-seeking or emotional venting, potentially leading to compositional shifts in observed sentiment.

5.2. Research Contributions

This study offers several theoretical contributions. First, the findings enhance our understanding of mandatory disclosure. Previous studies have focused more on users' voluntary disclosure behaviors, such as actively choosing to share personal information or post updates on social networks. However, in real-world contexts, users are also subject to platform-imposed disclosure requirements, such as the mandatory display of IP location information on Weibo examined in this study. By distinguishing between voluntary and involuntary disclosure, this research provides a more comprehensive understanding of how different disclosure mechanisms affect users' emotions and behaviors. Second, the study empirically reveals the intrinsic impact of social media privacy policies. IP locations are widely recognized in both academia and industry as sensitive personal information [7]. While mandatory IP disclosure may help curb misinformation and rumor propagation on social platforms, it can also trigger users' concerns about privacy breaches, thereby influencing their usage behavior. Finally, another theoretical contribution lies in the application of the regression discontinuity design (RDD) to the domain of user behavior, enabling the evaluation of feature policy impacts and extending the methodological scope of RDD. As a robust analytical tool for identifying causal relationships and assessing the effects of policy changes or social events at specific time points, RDD has been widely used in fields such as economics and education. However, its application in user behavior research remains limited. By employing RDD to examine the emotional intensity of Weibo users shared content following the release of the IP location feature, this study offers a methodological example for quantifying the impact of platform-level policy interventions.

Furthermore, the study yields the following managerial implications for social media users, platform designers, and policymakers implementing privacy-sensitive features such as mandatory IP location disclosure. Because users generally value privacy protection, platforms should proactively address privacy concerns through transparent communication (what is shown, to whom, and why), advance notice, and adequate evaluation and testing prior to rollout to reduce user resistance and unintended emotional harm. In terms of feature design, platforms should carefully calibrate the granularity and default visibility of location cues. In addition, disclosure-oriented governance should be accompanied by accountable data practices, including clear explanations of data use, strengthened data security and privacy protection mechanisms, and effective feedback and complaint channels to ensure timely responses to user concerns. These implications are particularly

salient for sensitive-topic contexts such as mental health discussions, where location cues may heighten perceived surveillance, stigma, or offline identifiability. Platforms may therefore consider topic-aware protections, such as limiting the visibility of location cues in sensitive contexts, strengthening anti-harassment and anti-discrimination enforcement, and providing clear reporting pathways for location-based abuse. Finally, policymakers and platforms should institutionalize post-rollout monitoring of unintended consequences (e.g., shifts toward more negative emotional tone or reduced participation) and use the evidence to iteratively adjust disclosure policies so that governance goals are balanced with user well-being. From a user perspective, individuals should remain cautious about new platform features that increase identifiability and, where possible, adjust privacy settings and sharing strategies to manage personal privacy risks and emotional well-being.

5.3. Research Limitation and Future Direction

The present study encountered several limitations. First, our evidence is platform- and policy-specific (i.e., Sina Weibo; Chinese social media context), limiting generalizability. Replication across different platforms, policies, and cultures is needed. Second, our sentiment measures rely on rule-based dictionaries, which may not capture emerging vocabulary, sarcasm, or multimodal content; future work could use transformer-based or LLM classifiers or extend our approach to fine-grained emotion categories (e.g., sadness, anger, anxiety, joy) using supervised classifiers or emotion lexicons and test whether mandatory IP disclosure differentially affects specific emotions beyond overall valence. Third, user-configured privacy settings may lead to incomplete data, though our large sample mitigates this concern. Fourth, we focus on depression-related posts; multi-topic datasets would clarify whether effects generalize across content domains. Finally, post-level analyses may conflate within-user changes with compositional shifts; user-level panels would separate behavioral adaptation from selective silence.

Author Contributions: Conceptualization, H.Z. and Z.C.; methodology, H.Z., A.G. and Z.C.; validation, Z.C. and X.L.; formal analysis, A.G. and Z.C.; data curation, A.G. and Z.C.; writing—original draft preparation, H.Z. and Z.C.; writing—review and editing, A.G. and X.L.; visualization, Z.C.; supervision, X.L.; project administration, H.Z. and A.G.; funding acquisition, H.Z. and A.G. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by the Young Scholars Project of Philosophy and Social Sciences Research, Department of Education of Hubei Province (Grant number: 24Q095; 24Q150), the Key Educational Research Project of Hubei Higher Education Association (Grant number: 2025ZX098), the Key Teaching Research Project of Hubei University of Technology (Grant number: 2024XZ19), and Doctoral Research Startup Fund Project of Hubei University of Technology (Grant number: XJ2024005401).

Institutional Review Board Statement: This study is based solely on publicly available secondary data and does not involve any humans or animal subjects. Therefore, ethical review and approval for this study have been waived.

Informed Consent Statement: This study is based solely on publicly available secondary data and does not involve any humans or animal subjects. Therefore, Informed consent for participation is not required.

Data Availability Statement: The original datasets presented in the study are from 3rd party and are openly available in the following: <https://github.com/LearnerZhang09/Weibo-Data-Mandatory-IP-Location-Disclosure> (accessed on 15 December 2025).

Conflicts of Interest: The authors declare no conflicts of interest.

References

1. Bazarova, N.N.; Choi, Y.H. Self-Disclosure in Social Media: Extending the Functional Approach to Disclosure Motivations and Characteristics on Social Network Sites. *J. Commun.* **2014**, *64*, 635–657. [\[CrossRef\]](#)
2. Kim, J.; Lee, J.-E.R. The Facebook Paths to Happiness: Effects of the Number of Facebook Friends and Self-Presentation on Subjective Well-Being. *Cyberpsychol. Behav. Social Netw.* **2011**, *14*, 359–364. [\[CrossRef\]](#) [\[PubMed\]](#)
3. Baruh, L.; Secinti, E.; Cemalcilar, Z. Online Privacy Concerns and Privacy Management: A Meta-Analytical Review. *J. Commun.* **2017**, *67*, 26–53. [\[CrossRef\]](#)
4. Tsai, J.Y.; Egelman, S.; Cranor, L.; Acquisti, A. The Effect of Online Privacy Information on Purchasing Behavior: An Experimental Study. *Inf. Syst. Res.* **2010**, *22*, 254–268. [\[CrossRef\]](#)
5. Malik, A.; Dhir, A.; Kaur, P.; Johri, A. Correlates of Social Media Fatigue and Academic Performance Decrement: A Large Cross-Sectional Study. *Inf. Technol. People* **2021**, *34*, 557–580. [\[CrossRef\]](#)
6. Tufekci, Z. Can You See Me Now? Audience and Disclosure Regulation in Online Social Network Sites. *Bull. Sci. Technol. Soc.* **2008**, *28*, 20–36. [\[CrossRef\]](#)
7. Liu, Y.; Wu, Y.; Li, C.; Song, C.; Hsu, W. Does Displaying One's IP Location Influence Users' Privacy Behavior on Social Media? Evidence from China's Weibo. *Telecommun. Policy* **2024**, *48*, 102759. [\[CrossRef\]](#)
8. Talwar, S.; Dhir, A.; Kaur, P.; Zafar, N.; Alrasheedy, M. Why Do People Share Fake News? Associations between the Dark Side of Social Media Use and Fake News Sharing Behavior. *J. Retail. Consum. Serv.* **2019**, *51*, 72–82. [\[CrossRef\]](#)
9. Li, J.; Luo, Y.; Yuan, Q. Uncovering the Impact of IP Location Display on User Behavior in China's Social Platforms: A Policy-Driven Analysis. *Telecommun. Policy* **2025**, *49*, 102978. [\[CrossRef\]](#)
10. Zhang, Y.; Xu, D. The Effects of IP Revelation on Location-Based Name-Calling and User Engagement: Evidence from a Chinese Online Platform. *J. Assoc. Inf. Syst.* **2025**, *25*, 1268–1293. [\[CrossRef\]](#)
11. Cozby, P.C. Self-Disclosure: A Literature Review. *Psychol. Bull.* **1973**, *79*, 73. [\[CrossRef\]](#) [\[PubMed\]](#)
12. Wheelless, L.R.; Grotz, J. Conceptualization and Measurement of Reported Self-Disclosure. *Hum. Comm. Res.* **1976**, *2*, 338–346. [\[CrossRef\]](#)
13. Sheldon, K.M.; Abad, N.; Hinsch, C. A Two-Process View of Facebook Use and Relatedness Need-Satisfaction: Disconnection Drives Use, and Connection Rewards It. *J. Personal. Soc. Psychol.* **2011**, *100*, 766. [\[CrossRef\]](#) [\[PubMed\]](#)
14. Bonaimé, A.A. Mandatory Disclosure and Firm Behavior: Evidence from Share Repurchases. *Account. Rev.* **2015**, *90*, 1333–1362. [\[CrossRef\]](#)
15. Zhang, S.; Kwok, R.C.-W.; Lowry, P.B.; Liu, Z.; Wu, J. The Influence of Role Stress on Self-Disclosure on Social Networking Sites: A Conservation of Resources Perspective. *Inf. Manag.* **2019**, *56*, 103147. [\[CrossRef\]](#)
16. Utz, S. The Function of Self-Disclosure on Social Network Sites: Not Only Intimate, but Also Positive and Entertaining Self-Disclosures Increase the Feeling of Connection. *Comput. Hum. Behav.* **2015**, *45*, 1–10. [\[CrossRef\]](#)
17. Chu, T.H.; Sun, M.; Crystal Jiang, L. Self-Disclosure in Social Media and Psychological Well-Being: A Meta-Analysis. *J. Soc. Personal. Relatsh.* **2023**, *40*, 576–599. [\[CrossRef\]](#)
18. Xie, W.; Kang, C. See You, See Me: Teenagers' Self-Disclosure and Regret of Posting on Social Network Site. *Comput. Hum. Behav.* **2015**, *52*, 398–407. [\[CrossRef\]](#)
19. Wang, Y.; Norcie, G.; Komanduri, S.; Acquisti, A.; Leon, P.G.; Cranor, L.F. "I Regretted the Minute I Pressed Share": A Qualitative Study of Regrets on Facebook. In Proceedings of the Seventh Symposium on Usable Privacy and Security, Pittsburgh, PA, USA, 20 July 2011; ACM: New York, NY, USA, 2011; pp. 1–16.
20. Ostendorf, S.; Müller, S.M.; Brand, M. Neglecting Long-Term Risks: Self-Disclosure on Social Media and Its Relation to Individual Decision-Making Tendencies and Problematic Social-Networks-Use. *Front. Psychol.* **2020**, *11*, 543388. [\[CrossRef\]](#)
21. Maier, C.; Laumer, S.; Eckhardt, A.; Weitzel, T. Giving Too Much Social Support: Social Overload on Social Networking Sites. *Eur. J. Inf. Syst.* **2015**, *24*, 447–464. [\[CrossRef\]](#)
22. Al-Jallad, M.S.; Radwan, A.F. Exploring Social Media Fatigue among Youth in the United Arab Emirates. *J. Print Media Technol. Res.* **2021**, *10*, 163–178.
23. Zhang, S.; Huang, F.; Yu, L.; Wang, J.F.; Lowry, P.B. A Dual-Process Model to Explain Self-Disclosure on Online Social Networking Sites: Examining the Moderating Effect of Enjoyment. *Internet Res.* **2023**, *34*, 1456–1487. [\[CrossRef\]](#)
24. Wang, L.; Yan, J.; Lin, J.; Cui, W. Let the Users Tell the Truth: Self-Disclosure Intention and Self-Disclosure Honesty in Mobile Social Networking. *Int. J. Inf. Manag.* **2017**, *37*, 1428–1440. [\[CrossRef\]](#)
25. Yu, C.; Margolin, D. Topic Territoriality and the Cost of Civility: Examining the Impact of IP Address Disclosure on Weibo. *J. Comput.-Mediat. Commun.* **2024**, *29*, zmae018. [\[CrossRef\]](#)
26. Yang, L.Y.; Xu, Y. User Location Disclosure Fails to Deter Overseas Criticism but Amplifies Regional Divisions on Chinese Social Media. *SSRN J.* **2023**. [\[CrossRef\]](#)
27. Aboulnasr, K.; Tran, G.A.; Park, T. Personal Information Disclosure on Social Networking Sites. *Psychol. Mark.* **2022**, *39*, 294–308. [\[CrossRef\]](#)

28. Santana, A.D. Virtuous or Vitriolic: The Effect of Anonymity on Civility in Online Newspaper Reader Comment Boards. *J. Pract.* **2014**, *8*, 18–33. [[CrossRef](#)]
29. Hu, Y.; Wang, W.; Zheng, Q. Good Intentions Gone Wrong: How the Revealing of IP Location on Social Media Impacts User Behaviour. *Aust. Acad. Bus. Res.* **2023**, *1*, 1–10.
30. Park, J.; Lee, D.S.; Shablack, H.; Verduyn, P.; Deldin, P.; Ybarra, O.; Jonides, J.; Kross, E. When Perceptions Defy Reality: The Relationships between Depression and Actual and Perceived Facebook Social Support. *J. Affect. Disord.* **2016**, *200*, 37–44. [[CrossRef](#)]
31. Wang, S.S.; Stefanone, M.A. Showing Off? Human Mobility and the Interplay of Traits, Self-Disclosure, and Facebook Check-Ins. *Social Sci. Comput. Rev.* **2013**, *31*, 437–457. [[CrossRef](#)]
32. Holleran, S.E. *The Early Detection of Depression from Social Networking Sites*; The University of Arizona: Tucson, AZ, USA, 2010.
33. Pickett, C.L.; Gardner, W.L.; Knowles, M. Getting a Cue: The Need to Belong and Enhanced Sensitivity to Social Cues. *Personal. Soc. Psychol. Bull.* **2004**, *30*, 1095–1107. [[CrossRef](#)] [[PubMed](#)]
34. Cho, D.; Kwon, K.H. The Impacts of Identity Verification and Disclosure of Social Cues on Flaming in Online User Comments. *Comput. Hum. Behav.* **2015**, *51*, 363–372. [[CrossRef](#)]
35. Bansal, G.; Gefen, D. The Impact of Personal Dispositions on Information Sensitivity, Privacy Concern and Trust in Disclosing Health Information Online. *Decis. Support Syst.* **2010**, *49*, 138–150. [[CrossRef](#)]
36. Beke, F.T.; Eggers, F.; Verhoef, P.C.; Wieringa, J.E. Consumers' Privacy Calculus: The PRICAL Index Development and Validation. *Int. J. Res. Mark.* **2022**, *39*, 20–41. [[CrossRef](#)]
37. Dinev, T.; Hart, P. An Extended Privacy Calculus Model for E-Commerce Transactions. *Inf. Syst. Res.* **2006**, *17*, 61–80. [[CrossRef](#)]
38. Li, G.; Wu, M.; Sun, R. Will China's Audit of Natural Environmental Resource Promote Green Sustainable Development? Evidence from PSM-DID Analysis Based on Substantial and Strategic Pollution Reduction. *PLoS ONE* **2022**, *17*, e0278985. [[CrossRef](#)]
39. Campbell, D.T.; Stanley, J.C. *Experimental and Quasi-Experimental Designs for Research*; Ravenio Books: Boston, MA, USA, 2015.
40. Lee, D.S.; Lemieux, T. Regression Discontinuity Designs in Economics. *J. Econ. Lit.* **2010**, *48*, 281–355. [[CrossRef](#)]
41. Imbens, G.W.; Lemieux, T. Regression Discontinuity Designs: A Guide to Practice. *J. Econom.* **2008**, *142*, 615–635. [[CrossRef](#)]
42. Jacquemet, N.; Fougère, D. *The Regression Discontinuity Design*; HAL (Open Archive): Lyon, France, 2023.
43. Paulhus, D.L.; Vazire, S. The Self-Report Method. In *Handbook of Research Methods in Personality Psychology*; The Guilford Press: New York, NY, USA, 2007; pp. 224–239. ISBN 978-1-59385-111-8.
44. Hausman, C.; Rapson, D.S. Regression Discontinuity in Time: Considerations for Empirical Applications. *Annu. Rev. Resour. Econ.* **2018**, *10*, 533–552. [[CrossRef](#)]
45. Shan, G.; Wattal, S.; Thatcher, J.B. How Does Anonymizing Crowdsourced Users' Identity Affect Fact-Checking on Social Media Platforms? A Regression Discontinuity Analysis. In Proceedings of the ICIS 2022 Proceedings, Copenhagen, Denmark, 9–14 December 2022.
46. Wang, W.; Li, F.; Yi, Z. Scores vs. Stars: A Regression Discontinuity Study of Online Consumer Reviews. *Inf. Manag.* **2019**, *56*, 418–428. [[CrossRef](#)]
47. Krumm, J. A Survey of Computational Location Privacy. *Personal. Ubiquit Comput.* **2009**, *13*, 391–399. [[CrossRef](#)]
48. Cavusoglu, H.; Phan, T.Q.; Cavusoglu, H.; Airoidi, E.M. Assessing the Impact of Granular Privacy Controls on Content Sharing and Disclosure on Facebook. *Inf. Syst. Res.* **2016**, *27*, 848–879. [[CrossRef](#)]
49. Sun, Y.; Wang, N.; Shen, X.-L.; Zhang, J.X. Location Information Disclosure in Location-Based Social Network Services: Privacy Calculus, Benefit Structure, and Gender Differences. *Comput. Hum. Behav.* **2015**, *52*, 278–292. [[CrossRef](#)]
50. Tang, K.; Hong, J.; Siewiorek, D. The Implications of Offering More Disclosure Choices for Social Location Sharing. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, Austin, TX, USA, 5 May 2012; Association for Computing Machinery: New York, NY, USA; pp. 391–394.
51. Cattaneo, M.D.; Idrobo, N.; Titiunik, R. A Practical Introduction to Regression Discontinuity Designs: Foundations 2019. *arXiv* **2019**, arXiv:1911.09511.
52. Zhu, Y. Privacy Cynicism and Diminishing Utility of State Surveillance: A Natural Experiment of Mandatory Location Disclosure on China's Weibo. *Big Data Soc.* **2024**, *11*, 20539517241242450. [[CrossRef](#)]
53. Guo, Y.; Lu, Z.; Kuang, H.; Wang, C. Information Avoidance Behavior on Social Network Sites: Information Irrelevance, Overload, and the Moderating Role of Time Pressure. *Int. J. Inf. Manag.* **2020**, *52*, 102067. [[CrossRef](#)]

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.