Postprint: Research on Influencing Factors and Mechanism of Mobile Social Media Fatigue Behavior

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Date: 2023-04-01T16:15:56+00:00

Abstract

[Purpose/Significance] This study investigates the influencing factors triggering user fatigue behavior in mobile social media, primarily analyzing causal and outcome elements to clarify the relationships among factors at various levels, thereby providing theoretical and practical guidance for academic researchers and social media operators. [Method/Process] Based on grounded theory, data were collected through four methods: online questionnaire records, one-on-one interviews, group discussions, and online community Q&A. Open coding, axial coding, and selective coding were employed to conduct integrated analysis and relationship mapping of the influencing factors of mobile social media fatigue behavior, integrating stress elements, state elements, and outcome elements that cause social media fatigue behavior while refining their interrelationships. [Results/Conclusion] The study elucidates the influencing factors and action pathways of mobile social media fatigue behavior, finding that the association pathway of influencing factors constructed in this study conforms to the S-S-O theoretical paradigm and can be perfectly explained through S-S-O theory.

Full Text

Research on Influencing Factors and Action Paths of Mobile Social Media Fatigue Behavior

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Abstract: [Purpose/Significance] This study explores the influencing factors that cause users' mobile social media fatigue behavior, analyzing both causal and outcome factors to clarify the relationships among various elements at different levels, thereby providing theoretical and practical guidance for academic researchers and social media operators. [Method/Process] Based on grounded

theory, data were collected through four methods: online questionnaire records, one-on-one interviews, group discussions, and online community Q&A. Open coding, axial coding, and selective coding were used to integrate and analyze the influencing factors of mobile social media fatigue behavior and 梳理 their relationships. Factor integration and relationship condensation were conducted for the stress factors, state factors, and outcome factors that cause social media fatigue behavior. [Result/Conclusion] The influencing factors and action paths of mobile social media fatigue behavior were clarified, revealing that the constructed association path of social media fatigue behavior influencing factors conforms to the S-S-O theoretical paradigm and can be perfectly explained by S-S-O theory.

Keywords: Mobile social media fatigue; User behavior; Grounded theory; Influencing factors

Classification Number: G250
DOI: 10.13266/j.issn.0252-3116.2020.13.015

1 Introduction

With the deep integration of the "human (human society)–machine (information space)–physical (physical world)" triad, information data exhibits diverse forms, heterogeneous multi-sources, and dynamic evolution. As an important channel for users to disseminate information and express opinions, social media's rich and multi-modal information resources have become one of the important data sources for media convergence. Since its emergence, social media has shown explosive growth globally. However, in recent years, people have been reducing their use of social media tools such as Facebook, with an increasing number of users experiencing an information behavior evolution process from "addiction/obsession → negativity/fatigue" [1]. Information overload and privacy fatigue lead to reduced service usage or user withdrawal, posing significant challenges to the sustainable development of social media [5]. In the new media environment, exploring the key influencing factors that cause user mobile social media fatigue behavior and how to effectively explain and analyze them using scientific theoretical models has become an urgent practical problem for scholars studying user psychology, user behavior, and online social media operators.

2 Related Research Status

2.1 Foreign-Related Research

Early research findings were mostly concentrated in Western developed countries, suggesting that social media fatigue might be related to social media users' privacy concerns, information anxiety, and fear of missing out, which impose

heavy burdens on people's lives. Mainstream social media both domestically and internationally (Facebook, Twitter, WeChat, Weibo) have all experienced the phenomenon of veteran users fleeing, a global trend where users increasingly post less status updates and participate negatively in social media, referred to as "social media fatigue" (SMF) [2]. Social media fatigue users may temporarily or permanently avoid participating in online social media interactions, which has significant negative impacts on users as well as enterprises and service operators [3]. At the user level, social media fatigue leads to psychological and physiological problems, subsequently developing into unhealthy behavioral manifestations [4]. At the enterprise and service operator level, social media fatigue is defined as a state of emotional exhaustion (mental exhaustion) suffered by users due to participation and interaction across different online social media platforms, leading to information overload and service overload. B. Swar et al. [7] believe that social media fatigue is the degree to which users avoid or lack motivation to use social media due to increased perceived social comparison, representing a negative emotional manifestation of users' social network activities, generally 表现为 fatigue, indifference, and apathy. R. Hill and N. Moran [8] define social media fatigue as a state of emotional exhaustion experienced by users due to information overload and service overload from participation and interaction across different online social media platforms. L. F. Bright et al. [2] further clarify that the contradiction between limited energy and information overload may be the main cause of social media fatigue. Moreover, users' fear of missing out caused by frequent and excessive use of social media can also lead to social media fatigue behavior [9], while perceived stress and personal characteristic attributes have direct or indirect effects on social media fatigue [10]. E. Bucher et al. [11] based on exploratory factor analysis, prove that improving users' information literacy is one of the effective means to avoid social media fatigue. Additionally, social media fatigue is influenced by both internal and external factors, with related research revealing the impact of internal user personality [12] and external social influence [13, 14] on user discontinuance behavior.

Recent foreign scholars' main research findings on social media fatigue (including researchers, research type, research region, analysis method, and research variables) are shown in Table 1 .

Table 1 Summary of Foreign Scholars' Related Research

Time	Research Type	Sample Region	Analysis Method	Research Variables
2013	Empirical Study	-	Questionnaire Survey & Structural Equation Modeling	Facebook interaction, communication overload, self-esteem, and psychological distress

Time	Research Type	Sample Region	Analysis Method	Research Variables
2014	Empirical Study	Taiwan, China	Questionnaire Survey & Structural Equation Modeling	Personality traits (openness, conscientiousness, extraversion, agreeableness, neuroticism) and social media fatigue and fatigue behavior
2015	Empirical Study	Taiwan, China	Questionnaire Survey & Project Covariance Matrix Analysis	Low ease of use, privacy issues, advertising interference, rumor spread, fatigue, normative pressure, satisfaction, usage behavior, continuance intention
2015	Empirical Study	-	Questionnaire Survey & Confirmatory Regression Analysis	Social media confidence, usefulness, self-efficacy, privacy, and social media fatigue
2016	Empirical Study	-	Field interviews, questionnaire survey, and structural equation modeling	Communication overload, social security, compulsive use, work overload, life invasion, work-family conflict, tension, productivity, quality of life, and tie strength

Time	Research Type	Sample Region	Analysis Method	Research Variables
2016	Empirical Study	-	Questionnaire Survey, Causal and Partial Causal Analysis	Life satisfaction, emotion, usage intensity, jealousy, active and passive use
2017	Empirical Study	Mainland China	Questionnaire Survey & Structural Equation Modeling	Excessive social use, excessive hedonic use, excessive cognitive use, social fatigue, technostress, and discontinuance intention
2017	Empirical Study	-	Questionnaire Survey & Structural Equation Modeling	Compulsive use, fear of missing out, social media fatigue, stress, anxiety
2017	Empirical Study	-	Questionnaire Survey & Structural Equation Modeling	Contextual factors (information overload, communication overload), emotional factors (fatigue, boredom), information environment (irrelevant information, uncertainty)

2.2 Domestic-Related Research

In recent years, the phenomenon of social media fatigue has also attracted widespread attention from domestic scholars and gradually become a hot research topic. Liu Luchuan et al. [21] used grounded theory to analyze the influencing factors of social media fatigue and its relationship with negative usage behavior, finding that both environmental factors and personal factors can influence users' social media fatigue emotions, and different degrees of social media fatigue emotions can in turn affect users' negative usage behavior. Peng

Lihui et al. [22] pointed out that social media attitude plays a key mediating role in the formation process of social media fatigue, and user privacy concern is an important influencing factor of social media attitude. Li Xu et al. [23] found that information overload, social overload, and service overload all have positive effects on user fatigue emotions, which in turn affect users' lurking, ignoring, and exiting behaviors to varying degrees. Zhang Yanfeng et al. [24] extracted social media user portrait labels based on information ecology theory and constructed a social media fatigue user portrait model according to user psychological characteristics and behavioral manifestations. Dai Bao et al. [25] summarized the causes of social media fatigue into social media-related factors and user-related factors, with the consequences mainly manifested as affecting users' psychology (dissatisfaction, etc.) and behavior (discontinuance behavior, negative usage behavior, etc.). Ji Zhongyang et al. [26] analyzed the psychological perception evolution of social media user fatigue behavior from a psychological perspective, providing psychological considerations for social media service providers to improve user stickiness.

Domestic scholars' main research findings on social media fatigue (including researchers, research type, analysis method, and research variables) are shown in Table 2 .

Table 2 Summary of Domestic Scholars' Related Research

Researchers	Research Type	Analysis Method	Research Variables
Liu Luchuan et al. [21]	Qualitative Study	Grounded Theory	Personal factors, environmental factors, fatigue emotion, negative usage behavior
Li Hong, Li Wei [27]	Review Study	Literature Review	Platform level, user level, social level
Niu Jing, Chang Mingzhi [28]	Empirical Study	Questionnaire Survey & Structural Equation Modeling	Privacy concern, social overload, information overload, negative social comparison, social media fatigue, self-efficacy, social media discontinuance intention

Researchers	Research Type	Analysis Method	Research Variables
Guo Jia, Cao Fenfang [29]	Empirical Study	Questionnaire Survey & Structural Equation Modeling	Information overload, system function overload, social overload, privacy concern, switching cost, habit, usage fatigue, switching fatigue, discontinuance intention
Peng Lihui et al. [22]	Empirical Study	Questionnaire Survey & Structural Equation Model	User privacy security, social media fatigue intention, social media fatigue behavior
Xiong Hui, Guo Qian [30]	Empirical Study	Questionnaire Survey & Correlation Analysis	Social overload, information overload, privacy anxiety, upward social comparison, Moments fatigue
Ji Zhongyang et al. [26]	Empirical Study	PAD Three-Dimensional Emotion Model	Emotional experience, perceived control, and social media user fatigue behavior
Zhang Yanfeng et al. [5]	Empirical Study	In-depth Interviews, Questionnaire Survey, Text Analysis	Core elements of information ecology theory, social media fatigue, user psychology, user behavior
Zhang Rui et al. [31]	Empirical Study	Evolutionary Game and Simulation Analysis	Platform environmental factors, personal factors, influencing factors of user fatigue behavior

2.3 Research Review

Based on the above analysis, despite the serious impacts of mobile social media fatigue on users and enterprises, and although current research on social media fatigue has attracted widespread scholarly attention, research on social media fatigue remains in the early exploratory stage. Existing research has investigated different determinants of social media fatigue, such as perceived stress [10], interpersonal comparison [14], and personal characteristics [15]. Most research methods employ questionnaire-based structural equation modeling and regression analysis, with survey samples mostly consisting of university students, which has certain limitations. Moreover, the relationship model of social media fatigue influencing factors has not been thoroughly studied. Therefore, this study combines four methods—online questionnaire records, one-on-one interviews, group discussions, and online community Q&A—to collect textual data, extracts indicator elements through grounded theory, designs a model framework, constructs a mechanism model, and analyzes the logical associations among elements. It dissects the influencing factors, linkage relationships, and evolution paths of Chinese information users' mobile social media fatigue behavior, breaking through previous limitations that focused on positive impact analyses such as information sharing, interaction, and addiction. The research findings help enrich and improve the theoretical system of user information behavior.

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3 Research Design

3.1 Theoretical Basis

This study adopts grounded theory, an exploratory qualitative research method, to investigate the key influencing factors of mobile social media fatigue behavior. Grounded theory, proposed by sociologists B. G. Glaser and A. L. Strauss, is dedicated to explaining social phenomena and represents an inductive, bottom-up research process [32]. It is generally based on actual observation, finding corresponding connections from raw data, and through open coding, axial coding, and selective coding, excavates the network relationship structure among influencing factor categories, constructing research results within a reasonable theoretical framework [33]. Among them, open coding abstracts data to form concepts or categories; axial coding discovers and establishes various connections among conceptual categories to excavate main categories, sub-categories, and their relationships; selective coding systematically analyzes all discovered conceptual categories to determine core categories [34]. These three procedures extract initial concepts and categories from raw data, then discover connections among initial categories to form main categories, and finally analyze relationships among main categories for summarization, thereby obtaining corresponding theories [35]. This method simulates the human process of understanding the world, involving continuous questioning, comparison, classification, relation-

ship building, and theory discovery [36], and demonstrates good applicability for social phenomena that have not yet formed mature variable categories or cannot be comprehensively explained by existing theories.

3.2 Data Sources and Research Methods

This study uses WeChat as a case study for analysis. WeChat was selected as the sample platform because, compared with other social media, it is one of the most iconic social media platforms in China's mobile internet, deeply embedded in Chinese users' daily lives. Simultaneously, WeChat is also one of China's most popular social media tools, with a massive user base and extensive influence. Data on social media fatigue behavior influencing factors were mainly obtained through qualitative interviews, combining four methods: online questionnaire records, one-on-one interviews, group discussions, and online community Q&A. Relevant data on the main influencing factors of social media fatigue were collected through continuous digitization, conceptualization, and categorization for comparative and relational analysis. Among them, online community Q&A primarily used the hot topic on Zhihu community, "Why do people share fewer personal updates and thoughts on social networks?" as the research theme, collecting data through a web crawler written in Python, with the URL: http://www.zhihu.com/question/42356789. After material collection, five experts in user behavior research were selected to further refine the interview protocol based on analysis results. The expert panel included two library and information science research scholars with professor titles and three PhD students specializing in social media research. Following the principle of "design as needed without infinite refinement" for label construction, the process continued until information obtained in interviews began to repeat. The specific interview information statistics are shown in Table 3 .

Table 3 Interview Information Statistics

Data Collection Method	Implementation Approach	Interview Subjects	Data Volume
Online Questionnaire Records	Questionnaires distributed via email, allowing respondents sufficient time	PhD and master's students	86 responses
One-on-One Interviews	30-minute interviews with each expert, recorded and audio-recorded	PhD students and supervisors	5 interviews

Data Collection Method	Implementation Approach	Interview Subjects	Data Volume
Group Discussions	Encouraging participants to enter unstructured, interactive, divergent, and inspiring brainstorming modes in a natural and relaxed posture	PhD and master's students	3 sessions
Online Community Q&A	Crawling relevant posts from Zhihu Q&A community, filtering invalid responses	Zhihu users	1,247 posts

3.3 Influencing Factors and Action Path Analysis

This study organizes and analyzes the obtained interview content based on grounded theory, continuously excavating core concepts through three stages: open coding, axial coding, and selective coding for mobile social media fatigue behavior influencing factors and action path analysis.

3.3.1 Open Coding Open coding is a process of "breaking down," "crushing," and re-synthesizing data records and abstracted concepts, aiming to gradually conceptualize and categorize data sets [32]. Through organizing and analyzing respondents' raw data, initial concepts were integrated based on answer frequency and group discussion opinions, continuously proposing labels, extracting concepts, and forming categories. Ultimately, 86 concepts were extracted. Through organizing and analyzing initial statements, corresponding concepts and categories were extracted. Partial conceptualization and categorization materials are shown in Table 4 .

Table 4 Open Coding Categorization of Social Media Fatigue Behavior Influencing Factors

Typical Initial Statement (Partial)	Concept Extraction	Category Formation
A1: My family rarely uses WeChat to post Moments or chat, mostly using phone calls or text messages. My close friends also don't post Moments. WeChat messages are basically useless group information, and Moments shares are mostly from micro-businesses, so I don't post Moments anymore.	Usage frequency of relatives, friends, and colleagues	Social circle influence
A2: I used WeChat before because I felt I needed it to maintain friendships with friends, but now I realize that true good friends don't need these—you can just make a phone call or write a letter.	Perceived value brought by social media software	Platform value cognition
A3: I won't actively add others on WeChat. Even after adding, if we don't contact for a long time, I'll delete strangers. Basically, I'm always in a lurking state, not replying to group messages, nor actively chatting with others.	Lurking, friend grouping, deleting strangers	Usage status
A4: I receive messages from official accounts every day, and there are many group messages, but these are basically useless and I won't click to read them.	Vast information volume	Information overload
A5: I spend a lot of time on WeChat every day. Sometimes when I want to chat with a friend, I find most are not very familiar.	Too many and mixed friends	Social overload
A6: Many functions require personal identity information and location when activated. Sometimes I don't want to expose all my personal information.	Privacy not protected, easy to leak	Privacy concern
A7: Personally, I'm unwilling to share personal updates and thoughts mainly because I increasingly realize that my personal updates and thoughts have nothing to do with 99.9% of people, and no one cares.	Reduced attention from others and self	Decreased attention

Typical Initial Statement (Partial)	Concept Extraction	Category Formation
A8: Even though I don't chat with others, I can't control opening WeChat, scrolling through Moments, and only realize I've wasted time when I feel bored.	Time wasted	Time cost
A9: Because more and more friends are added on WeChat, many unfamiliar or strangers, so sometimes posting a Moment requires long consideration, editing groups for who can see it, setting visibility ranges—very troublesome.	Frequency and visibility of posting Moments, setting friend groups	Social concerns
A10: Sometimes necessary information and files need to be released and received through group messages, must use WeChat for communication.	Forced to use	Compulsive use
A11: Platforms like Weibo and Zhihu have fewer acquaintances and allow viewing desired content, freely expressing opinions without so many concerns.	Other platforms can replace WeChat	Alternative attraction
A12: WeChat itself has technical loopholes, such as the lack of human customer service, often unable to use WeChat customer service.	Technical loopholes, poor system quality	System quality
A13: No review function for posted advertisements and false messages, making it impossible to know whether browsed content is true.	Poor review mechanism	Review mechanism
A14: When problems occur during use and feedback is given to WeChat developers, no feedback results are received, can only figure it out myself.	Untimely, ineffective feedback processing	Feedback function
A15: Sensitive to update notification symbols and sounds, frequently refreshing dynamics, constantly checking group chats and Moments, liking, commenting, and other compulsive behaviors.	Obsessive frequent refreshing, liking, and commenting	Fear of missing out

3.3.2 Axial Coding Axial coding requires building upon open coding to further summarize the formed concepts and categories through repeated scrutiny and comparison, connecting related concepts and summarizing main categories according to their connotations and categorical relationships [32]. The coding approach adopts G. Botschken et al.'s research findings, retaining category elements mentioned more than one-third of the time, otherwise deleting them [37]. Following this principle, all interview content was filtered for influencing factors, obtaining 23 independent category elements. By exploring connections among these 23 categories and further summarizing and merging them, six main categories were ultimately obtained: information human factors, information factors, technical factors, environmental factors, emotional state, and behavioral outcomes. Specific categories and relationships are shown in Table 5 .

Table 5 Relationship Between Main Categories and Sub-categories

Main Category	Sub-category	Relationship Definition
Information Human Factors	Social circle influence	Usage frequency of relatives, friends, and colleagues affects user usage intention
	Platform value cognition	Value perceived by users when using social media software
	Usage status	Lurking, friend grouping, regularly deleting friends, setting Moments visible for only three days, etc.
Information Factors	Information overload	Large information volume, low content quality, and fast dissemination speed interfere with users' identification of useful information
	Social overload	Increasing WeChat groups and unfamiliar friends
	Privacy concern	Users' personal privacy not protected, fearing information leakage
	Decreased attention	No longer valuing others' attention to self, and reducing attention to others
Technical Factors	System quality	Technical loopholes in system functions
	Review mechanism	Incomplete review mechanism, users cannot verify information authenticity
	Feedback function	Lack of unified feedback processing department, feedback not effectively resolved

Main Category	Sub-category	Relationship Definition
Environmental Factors	Time cost	Personal perceived time cost passing
	Social concerns	Need to label WeChat friends, worry about inappropriate Moments posts
	Alternative attraction	Other social media can replace WeChat due to special functions
	Compulsive use	Forced to use frequently due to social relationship pressure
Emotional State	Fear of missing out	Anxiety and discomfort from fearing to miss others' experiences, accompanied by constant clicking, frequent checking, continuous refreshing
	Low achievement	Low sense of self-achievement, strong feeling of loss
	Decreased interest	Fewer likes and replies, weakening participation enthusiasm
	Emotional exhaustion	Emotions shift from enthusiasm to fatigue and irritability, from active to passive use
Behavioral Outcomes	Lurking behavior	Browsing content without creating content, not participating in discussions
	Avoidance behavior	Consciously ignoring and avoiding specific information, blocking uninterested people and groups
	Tolerance behavior	Forced to use frequently due to social relationship pressure, creating an illusion of active use
	Exit behavior	Uninstalling WeChat, discontinuing use
	Substitution behavior	Replacing WeChat with other behaviors, such as reading, exercising, etc.

3.3.3 Selective Coding Selective coding requires focusing on the core category, further summarizing and refining main categories, 梳理 core category relationships to maximize coverage, and determining relationships between core and main categories [32]. Based on repeated study of the six main categories formed through axial coding, after selective coding, it was determined that in-

formation human factors, information factors, information technology factors, and information environment factors have significant causal relationships with emotional state, which in turn has causal relationships with fatigue behavior. The relationship structure of main category elements was thus determined, as shown in Table 6 .

Table 6 Main Category Relationship Structure

Relationship Structure	Definition	Typical Respondent Statement
Information Human Factors → Emotional State	Social circle influence, platform value cognition, and usage status are information human factors triggering users' negative usage emotions	"WeChat usage status changed from crazy liking and commenting to current lurking without replies; good friends don't play Moments, reducing personal participation, perceiving low platform value, thus reducing usage"
Information Factors → Emotional State	Information overload, social overload, privacy leakage, and decreased attention are information factors triggering users' negative usage emotions	"More and more official accounts and subscriptions, advertisements everywhere, increasingly mixed friend relationships, more micro-businesses, forcing blocking and deleting some people, personal privacy not protected, fewer people caring about oneself"

Relationship Structure	Definition	Typical Respondent Statement
Technical Factors → Emotional State	System functions, review functions, and feedback functions are technical factors triggering users' negative usage emotions	"No review function for posted advertisements and false messages, making it impossible to verify browsed content authenticity; when problems occur and feedback is given to WeChat developers, no results received, can only figure it out myself"
Environmental Factors → Emotional State	Time cost, social concerns, alternative attraction, and compulsive use are environmental factors triggering users' negative usage emotions	"New social media like Weibo and Douyin reduce my excessive WeChat use, and due to overly complex friend relationships, too many concerns when posting Moments, perceived high time cost, reducing usage"
Emotional State → Behavioral Outcomes	Fear of missing out, low achievement, decreased interest, and emotional exhaustion are direct causes of social media fatigue behavior	"Fewer likes and replies, weakening participation enthusiasm and interest, emotions shifting from enthusiasm to fatigue and irritability, from active to passive use"

Based on this category 脉络, by summarizing the main category element relation-

ship structure, it was found that this study's model relationship conforms to the S-S-O theoretical paradigm. S-S-O theory posits that users form pressure strain (state, strain) under the action of stressors from stimuli (pressure source, stressor), thereby producing corresponding physical results (outcome, outcome) [38]. This study's influencing factor action path relationship framework is: Under the action of stressors (S), users may trigger social media fatigue emotions (S), leading to psychological fatigue and satisfaction decline, which in turn causes a series of social media fatigue behavior outcomes (O). This produces a paradigm process of "stress factors → emotional state → behavior outcome." The S-S-O theoretical paradigm has been fully proven effective in information technology usage research [39]. Among them, stressor factors (stressor) originate from information ecology theory factors, including four factors: information human, information, information technology, and information environment. Stress factors generate individual negative emotions and other state manifestations (strain) through users' perceived feedback, and users subsequently trigger various social media fatigue behavior outcomes (outcome) due to pressure states. Based on this relationship 脉络, this study constructs and develops a new generation mechanism model for social media fatigue behavior, as shown in Figure 1 [Figure 1: see original paper].

3.3.4 Theoretical Saturation Test According to grounded theory process requirements for theoretical saturation testing, after analyzing two-thirds of randomly selected interview content, the remaining one-third was used for theoretical saturation testing. After comparison and discussion, no new theoretical model elements were extracted, thus inferring that this study's model achieved theoretical saturation.

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4 Model Elaboration and Research Findings

4.1 Impact of Information Human Factors on Emotional State

Information humans, influenced by social circles, experience gradually enhanced self-efficacy, thereby reducing interest in social media usage. Simultaneously, when users perceive that the usage value of social media platforms fails to meet their expectations, their usage enthusiasm gradually shifts from active to passive. During interviews, many respondents indicated they are reducing their use of mobile social media like WeChat, mainly manifested in decreasing Moments posting frequency and changing usage from frequent refreshing to "lurking" status. Additionally, various "show-off" posts in Moments cause users to unconsciously compare during browsing. Frequent and excessive social media use also leads to mobile social media fatigue emotions [24]. When users engage in long-term screen scrolling, liking, and commenting, they experience negative effects such as emotional exhaustion and cognitive bias, further triggering negative usage emotions toward mobile social media platforms, which is also a direct motivation affecting users' negative usage of mobile social media platforms [21].

4.2 Impact of Information Factors on Emotional State

The proliferation of marketing accounts, excessive advertising recommendations, and increasing false information create severe information overload that seriously interferes with normal social media usage, continuously diminishing users' usage intention. Meanwhile, as the number of friends increases, social media's "strong-tie" social network rapidly transforms into "weak-tie," causing friend quality to decline sharply. Users perceive reduced social benefits, decreased attention, and worry about being misunderstood, with social overload phenomena promoting negative usage emotions [40]. In the big data cloud system environment, user information behavior traces and personal privacy information exist in a potential data "theft" environment through social media platforms. The investigation found that incidents such as WeChat account theft occur frequently, personal privacy cannot be guaranteed, and users' confidence and participation gradually weaken. Social media interactivity and entertainment greatly decrease, users' participation enthusiasm and sharing willingness also reduce accordingly, further leading to mobile social media fatigue.

4.3 Impact of Information Technology on Emotional State

The development of mobile social media functions and systems has basically reached a bottleneck stage. Currently, users express concerns about operating systems and information technology security, with social media network systems having potential security risks and incomplete system functions, manifested as inability to post dynamic images and restrictions on long video posting. Technical loopholes and uncertainty in system security cause great distress to users [24], gradually diminishing their usage enthusiasm. Additionally, due to the lack of a clear review mechanism in social media, system advertisements increase substantially, and spam information is continuously pushed, increasing users' usage costs and reducing usage interest. The investigation found that due to the absence of feedback functions in mobile social media platforms, problems encountered during user experience cannot be solved promptly, leading to sharp declines in usage satisfaction and shifting usage intention from active to passive.

4.4 Impact of Information Environment on Emotional State

As the number of contacts in users' friend lists continuously increases, friend quality keeps declining, social circles become increasingly complex, and social relationship chains begin developing toward "weak-tie," creating concerns about free expression and constraints on interpersonal interactions. Blocking friends and information grouping have become common phenomena, making users increasingly cautious about sharing and posting information. More and more users only view WeChat as a communication tool, with participation interest gradually decreasing. When ubiquitous "work groups" blur the boundary between work and life, "invisible overtime" is often criticized [21], and compulsive use becomes increasingly common. Additionally, because social media operation requires substantial time costs, users reduce their social media usage under per-

ceived cost pressure. Moreover, with the impact of "weak-tie" social media like Weibo and Douyin short videos, when "strong-tie" social media (like WeChat) cannot meet user needs, users tend to leave or shift to "weak-tie" social media [40], which is also an important reason for "strong-tie" social media users developing negative usage emotions.

4.5 Impact of Emotional State on Behavioral Outcomes

The negative emotions generated by information users have significant impacts on social media fatigue behavior. Fear of missing out (FoMO) users may spend more time on social media networks, but due to frequent checking and excessive information pressure, users' emotions gradually become exhausted, and their attitudes toward social media gradually shift from addiction to indifference [41]. Simultaneously, as users' self-efficacy improves, their interest in mobile social media gradually decreases. Additionally, when facing complex social relationships and overloaded information pressure, users tend to block friends, group information, ignore information, and avoid information, leading to continuously reduced social media achievement and rising negative emotions toward social media. More and more users begin to show unwilling and passive attitudes toward social media usage, subsequently producing social media fatigue behaviors such as lurking, avoidance, tolerance, exit, and substitution [1].

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5 Research Results and Outlook

This study, based on grounded theory, clarifies the influencing factors and action paths causing mobile social media fatigue behavior, identifies and analyzes the coupling relationships among variables, conducts factor integration and relationship condensation for mobile social media fatigue behavior elements, and through a "causal + associative" research approach, finds that the constructed influencing factor relationship of mobile social media fatigue behavior conforms to the S-S-O theoretical paradigm and can be perfectly explained by S-S-O theory. Simultaneously, this study further expands the social media fatigue behavior mechanism model:

(1) The stress factors (stressor) of mobile social media fatigue can construct social media fatigue behavior influencing factor categories based on "information ecology theory" from four categories: "information human factors, information factors, technical factors, and environmental factors," distinguishing it from previous social media fatigue (SMF) research literature. This makes the extraction of social media fatigue behavior influencing factors more theoretically grounded. On the basis of determining influencing factors and relationships, a theoretical model framework for mobile social media fatigue behavior is constructed, attempting theoretical innovation in the "human-machine" interactive "information ecology" balance.

(2) This study analyzes the impact of user emotional state (strain) on mobile social media fatigue behavior. Particularly, different stress factor stimuli may produce different degrees of negative emotions, such as fear of missing out, decreased interest, low achievement, and emotional exhaustion. Emotional state plays an important mediating role in the action path of mobile social media fatigue behavior influencing factors, directly affecting users' social media fatigue behavior. Social media enterprises and service operators should scientifically and reasonably predict trends and situations of mobile social media fatigue emotions, preventing "information cascade" effects caused by "digital Leviathan" risks triggered by mobile social media fatigue emotions.

(3) This study further elaborates on social media fatigue behavior element indicators, dividing social media fatigue behavior into five types: lurking behavior, avoidance behavior, tolerance behavior, exit behavior, and substitution behavior, providing application guidance for corresponding management strategies. Meanwhile, in the big data era, user information behavior generates corresponding data tags. Relevant departments can clarify mobile social media fatigue user behavior characteristics from a data-driven user behavior portrait analysis perspective, based on data-driven management decision-making concepts, obtain management decision predictions of behavior trends, and enhance the foresight and risk insight of mobile social media fatigue behavior analysis.

This study also has certain limitations. First, data collection and analysis were conducted using only WeChat as a single social media platform sample, without in-depth exploration of user perceived stress, emotional state, and behavioral differences across different social media platforms. Second, this study uses qualitative research methods to explore mobile social media fatigue behavior influencing factors and action paths. Future research will combine qualitative and quantitative methods for more in-depth empirical research on mobile social media fatigue behavior, providing richer theoretical and practical guidance for academic researchers and social media operators.

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Author Contributions

Zhang Yanfeng: Proposed research ideas and methods, revised the paper;
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Mao Taitian: Reviewed the paper;
Wang Yuxi: Distributed and collected questionnaires.

Research on Influencing Factors and Action Path of Mobile Social Media Fatigue Behavior

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Abstract: [Purpose/Significance] To explore the influencing factors that cause users' mobile social media fatigue behavior, analyze the causal and outcome factors, clarify the relationships among elements at all levels, and provide theoretical and practical guidance for academic researchers and social media operators. [Method/Process] Based on grounded theory, data were collected through four methods: online questionnaire records, one-on-one interviews, group discussions, and online community Q&A. Open coding, axial coding, and selective coding were used to integrate and analyze the influencing factors of mobile social media fatigue behavior and clarify their relationships. Factor integration and relationship condensation were conducted for the stress factors, state factors, and outcome factors causing social media fatigue behavior. [Result/Conclusion] The influencing factors and action paths of mobile social media fatigue behavior were clarified, and it was found that the constructed influencing factor relationship path of social media fatigue behavior conforms to the S-S-O theoretical paradigm and can be perfectly explained by S-S-O theory.

Keywords: Mobile social media fatigue; User behavior; Grounded theory; Influencing factors

Note: Figure translations are in progress. See original paper for figures.