Research on Functional Alienation of Bookmarking Behavior among Xiaohongshu Users in the Context of Digital Hoarding

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Abstract:

This study focuses on the "bookmarking as action" behavioral paradox on the Xiaohongshu platform, a phenomenon exhibiting characteristics of mild digital hoarding. Addressing limitations in existing research—such as the pathologizing bias towards digital hoarding, insufficient attention to emotional mechanisms, and the neglect of platform design roles—this research introduces the theoretical framework of "functional alienation" to explore how user bookmarking behavior shifts from a functional practice of "enabling future action" to an emotional practice of "alleviating immediate anxiety." By integrating theories of digital hoarding, emotion, and meaning-making, a "meaning-emotion-behavior-alienation" cyclical model is constructed. A mixed-method approach combining questionnaire screening and in-depth interviews is employed to analyze user motivations and contradictions. Findings reveal that users rationalize bookmarking through meaning narratives such as "knowledge management" and "identity marking"; platform designs like "one-click bookmarking + algorithmic recommendation + digital feedback" collude with emotional logic to foster continuous hoarding; behavioral alienation leads to functional failure and emotional burden, forming a paradox of substitutive satisfaction where "bookmarking equates to possession." The conclusion unveils the mechanism of behavioral alienation driven by the mutual construction of platform capital logic and user emotion, providing theoretical expansion for research on digital hoarding in social media.

Keywords: Digital hoarding; functional alienation; Xiaohongshu; bookmarking behavior; behavioral paradox.

1. Introduction

This study addresses the deep-seated trend of behavioral data capitalization among social media users, using the Xiaohongshu platform as a core case. Xiaohongshu has built an active user content ecosystem based on its „Mark My Life" philosophy [1]. Its bookmarking function, triggered over 100 million times daily, exhibits a significant „behavior-action" paradox: a structural disconnect exists between high-frequency bookmarking and low actual content utilization rates. „Collecting digital dust" has become a unique cultural symptom on this platform [2]. This phenomenon transcends traditional information management and is recognized by academia as mild digital hoarding behavior—where individuals persistently acquire digital resources yet struggle to utilize or delete them effectively, often accompanied by emotional distress [3].

Investigating Xiaohongshu users' bookmarking behavior holds both theoretical and practical value. Existing domestic research primarily focuses on the unidirectional influence of content characteristics on bookmarking, such as how user-generated content (UGC) information quality, visual elements, or vertical content drive bookmarking [4, 5]. However, these studies exhibit significant limitations: First, they over-rely on clinical hoarding disorder diagnostic frameworks, neglecting the widespread non-clinical digital hoarding phenomena on social media. Second, they oversimplify emotional mechanisms as motivational variables, lacking in-depth analysis of dynamic emotional logics like the „anxiety relief-immediate gratification-guilt cycle" [6]. Finally, they treat platform features as neutral tools, failing to reveal how technical designs like algorithmic recommendations and interactive feedback systematically reshape user behavioral logic [7]. These gaps hinder understanding the alienation mechanism by transforming bookmarking from a functional practice into an emotional one.

Addressing these limitations, this study poses the core question: How does Xiaohongshu users' bookmarking behavior alienate from an instrumental-rational practice of „enabling future action" to a value-rational practice of „alleviating immediate anxiety"? It specifically examines the interaction mechanisms across three dimensions: In the meaning-making dimension, it explores how users integrate bookmarking into self-perception through narrative frameworks like knowledge management, future planning, or identity marking. In the platform collusion dimension, it analyzes how technical elements—such as the convenience of one-click bookmarking, visual feedback of bookmark counts, and infinite information feeds—structurally collude with user emotional needs. In the alienation effect dimension, it systematically analyzes

the cognitive dissonance, loss of behavioral control, and emotional costs caused by functional alienation, tracking users' coping strategies.

Methodologically, this study employs a three-phase mixed design: First, systematic literature analysis integrates theories of digital hoarding, functional alienation, and meaning-making. Second, a questionnaire quantifies bookmarking frequency, types, utilization efficiency, and emotional baselines. Finally, semi-structured in-depth interviews focus on users' meaning interpretations, emotional triggers, and perceived contradictions, with interview texts coded using thematic analysis [8].

Aiming at the theoretical level to reveal the dynamic mechanism of technical tool alienation under platform capitalism logic and construct an explanatory model for social media digital hoarding paradoxes, this study also provides practical insights for optimizing platform interaction design and enhancing user digital literacy, promoting the construction of a healthy digital behavior ecosystem.

2. Literature Review and Theoretical Framework

A keyword search for "Xiaohongshu user bookmarking" on CNKI reveals 18 academic journal papers. Narrowing the focus to user behavior yields 12 papers, while only two specifically analyze "Xiaohongshu user bookmarking" behavior itself. Examination of journal details indicates a lack of high-quality academic papers on this topic.

Existing research on social media digital hoarding suffers from three limitations: First, it often focuses on pathological diagnostic criteria, overlooking subclinical widespread behaviors. Second, it emphasizes information overload at the technical level, lacking deep analysis of emotionally driven mechanisms. Third, it treats platform functions as neutral tools, failing to reveal how technical design reshapes behavioral logic. Particularly in the Xiaohongshu context, when the bookmarking function alienates from a "practical tool" to an "emotional compensation" medium, the resulting cognitive dissonance and psychological costs remain systematically unexplored.

This study introduces the functional alienation theoretical framework, transcending traditional technological determinism. This concept, a modern derivation from Marx's theory of alienated labor, refers to the process where technological tools, entangled with capital logic, deviate from their original design purpose and undermine user subjectivity. In the Xiaohongshu scenario, the bookmark button's convenience, visual design, and algorithmic recommendation mechanism constitute the "three elements of behavioral induction," collectively trapping users in a

"acquisition-accumulation-anxiety-reacquisition" closed loop. This alienation is essentially a product of the mutual construction between platform capitalization logic and user emotional needs: Bookmarking shifts from the instrumental rationality of "enabling future action" to the value rationality of "alleviating immediate anxiety," ultimately leading to the loss of functional subjectivity.

Addressing these theoretical gaps and practical dilemmas, this study proposes the core proposition: How does Xiaohongshu users' bookmarking behavior evolve from a functional practice to an emotional practice, reconstructing users' meaning cognition and behavioral logic during alienation? It specifically focuses on three dimensions: how users incorporate bookmarking into self-narrative frameworks through meaning construction; how the emotional logic driving continuous bookmarking colludes with platform design; and how users perceive and respond to the alienation effects of bookmarking. By deconstructing the psychological metaphor of "bookmarking as possessing," this study aims to reveal the formation mechanism of this new behavioral paradox in the era of digital consumption.

This study focuses on the prevalent "bookmarking as action" behavioral paradox among Xiaohongshu users, characterized by high-frequency collection of massive notes accompanied by extremely low subsequent practice conversion rates. This behavior transcends simple information management failure, exhibiting significant mild digital hoarding characteristics. To deeply analyze its internal mechanism, this study integrates multidisciplinary theoretical perspectives, constructing a "meaning-emotion-behavior-alienation" cyclical framework to systematically explain the behavior's motivations, processes, and consequences.

The research creatively adapts digital hoarding theory to the social media context, revealing the core contradiction of non-pathological hoarding among Xiaohongshu users: The platform's "one-click bookmarking" design reduces resource acquisition cost to near zero, yet users face significant abandonment barriers and utilization barriers, forming a structural imbalance of "high acquisition-low utilization," ultimately causing bookmark folder dysfunction and psychological burdens like anxiety and guilt. From an emotional theory perspective, bookmarking is driven by three positive emotions—hope projection, immediate gratification, and anxiety relief—yet reverses into anxiety burdens, self-guilt, and behavioral numbness when undigested content accumulates, forming an emotional closed loop of "drive-distress." Meaning-making theory explains how users rationalize behavior through five types of narratives: knowledge management, future action blueprints, interest identity marking, social capital accumulation, and psychological comfort rituals. These narratives directly regulate their judgment of behavioral value. Functional alienation theory critically points out: Under the mutual construction of platform capital and user emotion, the bookmarking function alienates from an instrumental-rational efficiency tool to a value-rational emotional compensation, manifesting as three paradoxes—purpose distortion, loss of control, and negative output—deeply exposing the self-dissolution of technological tools in social contexts.

3. Research Methods

This study adopts an explanatory sequential mixed design, using questionnaires to preliminarily quantify user behavior patterns, then employing in-depth interviews to qualitatively explore internal mechanisms. This design is based on dual considerations: On one hand, digital hoarding behavior exhibits both overt characteristics and implicit meanings, requiring complementary quantitative and qualitative methods. On the other hand, functional alienation research needs to move from phenomenon description to mechanism explanation, aligning with the "breadth before depth" exploratory logic.

3.1 Questionnaire Survey

The core value of the questionnaire lies in establishing behavioral baselines and screening typical samples. Its advantages are threefold: First, standardized scales enable rapid acquisition of large-sample data to identify universal patterns. Second, structured measurement ensures variable comparability (e.g., emotional intensity, alienation degree). Third, quantitative testing of key relationships (e.g., negative correlation between usage frequency and utilization efficiency) provides focus for interviews.

Participants were limited to active Xiaohongshu users meeting three criteria: usage frequency ≥3 times/week, average monthly bookmarks ≥15 in the past three months, and experience of anxiety due to bookmark management. A combined strategy of stratified snowball sampling and platform-targeted distribution was used. The former recruited seed users from "bookmark management" communities and expanded social networks; the latter relied on platform user profiles for precise questionnaire delivery. Ultimately, 107 valid samples were obtained, exceeding the target size. The sample comprised 54.2% young users aged 18-25, 45.8% students, and 50.5% with daily usage exceeding 60 minutes, reflecting youthful and high-engagement characteristics.

The questionnaire design strictly anchored the theoretical framework: The demographics module recorded basic characteristics; the behavioral characteristics module,

based on digital hoarding theory, measured acquisition convenience (e.g., "One-click bookmarking makes hoarding easier") and abandonment barriers (5-point scale assessing deletion hesitation); the functional efficiency module, linked to functional alienation theory, examined utilization rate (self-assessed proportion of bookmarks consulted) and functional impairment (difficulty finding scale); the emotion module used a 5-point Likert scale across two dimensions—positive emotions (sense of hope, immediate gratification, security) and negative emotions (sense of burden, guilt, helplessness); the alienation perception module included comprehensive items (e.g., "My bookmarking behavior has deviated from its original purpose") and open-ended questions capturing subjective experiences.

Data collection was implemented via Wenjuanxing platform, with quality control measures like IP restriction and completion time >5 minutes. Reliability was tested by Cronbach's α coefficient (emotion scales α > 0.75), and validity was ensured by two communication professors assessing item effectiveness. Ethically, the homepage stated research purpose and anonymity principle, requiring users to sign informed consent. Data analysis used SPSS 26.0 for four stages: descriptive statistics presenting behavior distribution; Pearson correlation quantifying variable associations; independent samples t-test/ANOVA analyzing group differences; multiple linear regression exploring factors influencing alienation perception.

3.2 Interview Analysis

The core value of in-depth interviews lies in deconstructing the meaning network behind behavior, with irreplaceability manifested in: revealing deep contradictions in user narratives (e.g., psychological compensation of "bookmarking as possessing"); tracing the dynamic process of behavioral alienation (from functional use to emotional dependence); and refining the theoretical model through case comparisons.

Interviewees were selected from the questionnaire sample based on three criteria: alienation perception intensity (comprehensive item score ≥4), behavioral contradiction (daily average bookmarks >8 and utilization rate <30%), and detailed open-ended responses with consent for interviews. Ten participants were recruited, including students (6) and employed individuals (4), with typical cases such as a 23-year-old student (bookmarks 2100+, utilization 10%) and a 28-year-old designer (bookmarks 3700+, utilization 15%).

The interview guide used a semi-structured design, with questions directly addressing theoretical dimensions: The meaning-making dimension triggered self-narratives through "How would you explain your bookmarking behavior to friends?" and revealed identity marking via "What part of yourself does bookmarking makeup tutorials represent?"; The emotional drive dimension probed emotional attachment by asking "Would you feel anxious if bookmarks were deleted immediately?" and observed psychological changes when "bookmark count exceeded 1000"; The alienation mechanism dimension focused on critical experiences ("When did you realize you were bookmarking for the sake of bookmarking?") and instrumental rationality reflection ("Would disabling bookmarking improve efficiency?").

Interviews were conducted online via Tencent Meeting, lasting 45-75 minutes each. Full recordings were transcribed into 140,000 words of text, verified by member checking. Enhanced ethical measures included secondary informed consent signing, allowance to skip sensitive questions, and text anonymization (removing names/locations). Data analysis employed constructivist thematic analysis (Braun & Clarke, 2006), progressing through six stages: repeated reading and marking contradictions; open coding extracting semantic units (e.g., "bookmarking fitness videos = possessing a good figure"); clustering generating candidate themes; cross-verification with questionnaire data; anchoring theory to name themes (e.g., "substitutive satisfaction" corresponding to functional alienation); selecting typical narratives for illustration. Four core themes emerged: self-investment (meaning-making), anxiety buffer (emotional drive), function inversion (alienation manifestation), and digital stimulus (platform collusion), achieving deep dialogue between theory and experience.

4. Data Analysis

4.1 Survey Data

Based on 107 valid questionnaires, this study found structural imbalances in Xiaohongshu users' bookmarking behavior. Behaviorally, 84.1% of users bookmarked over 5 notes daily, but the median actual utilization rate (proportion of bookmarks consulted or acted upon) was only 12%. Young student groups (18-25 years old) were particularly prominent, with per capita bookmarks exceeding 2100 and utilization rates below 9%. This behavioral paradox relates directly to the double-edged effect of platform design: 93.5% of users agreed "one-click bookmarking significantly lowers acquisition barriers" (average rating 4.6/5), but 76.6% faced severe abandonment barriers, with deletion hesitation scoring 3.8/5. Deep attribution revealed 68.2% refused deletion due to "fear of future need," 24.3% allowed accumulation due to "time-consum-

ing organization," ultimately causing 89.7% to experience functional impairment—45.8% faced retrieval difficulties, 33.6% abandoned consultation due to information overload, and 10.3% experienced decision paralysis.

The emotional dimension revealed stark polarization. Among positive emotions, 91.6% projected ideal selves through bookmarking (e.g., "bookmarking fitness tutorials signifies expecting to become slim"); the immediate gratification rating upon clicking bookmark was high at 4.2/5, far exceeding practice satisfaction (2.1/5); 87.9% relied on bookmarking to alleviate fear of missing out (FOMO) (algorithmic recommendation scenarios scored 3.9/5). Negative emotions manifested as psychological burdens: anxiety (mean 3.7/5) and guilt (mean 3.5/5) remained high when opening the bookmark folder, with the 26-35 employed group feeling the strongest guilt (4.1/5), mainly due to self-reproach over "failed plan execution."

Multiple linear regression (R^2=0.63) verified core drivers of alienation perception: Daily usage duration (β=0.42, p<0.001), positive emotion intensity (β=0.38, p=0.002), and abandonment barriers (β=0.31, p=0.008) were positive predictors; actual utilization rate (β=-0.57, p<0.001) and age (β=-0.29, p=0.013) were negative predictors. Occupation and bookmark type showed no significant influence, confirming the phenomenon's cross-group prevalence.

4.2 Interview Data

Through in-depth interviews with 10 typical users (6 students, 4 employed), this study condensed three core findings.

Narrative strategies of meaning construction served as the cornerstone for behavioral rationalization. In knowledge management, a 23-year-old student (P03) revealed self-deception logic: "Naming the bookmark folder 'Life Think Tank' creates the illusion of mastering knowledge the moment I bookmark." In future planning, a 30-year-old product manager (P02) explained symbolic action: "Bookmarking travel guides feels like booking a ticket, psychologically completing the 'planning' ritual." In identity marking, a 26-year-old designer (P06) reflected on virtual projection: "Bookmarking vinyl reviews lets me pose as an audiophile, even though I've never bought a record player."

Deep collusion between platform technology and emotion fostered continuous hoarding. Algorithmic recommendations intensified FOMO; a 28-year-old editor (P01) described: "Homepage-recommended Nordic home decor notes inject desire like precision shots, making bookmarking irresistible." Quantitative feedback created false control; a 22-year-old student (P04) admitted: "Screenshotting

to show off when bookmarks hit 3000 felt like a gaming achievement medal." Immediate gratification replaced long-term value; a 33-year-old programmer (P09) confessed: "The thrill of bookmarking 10 fitness videos late at night was like brief comfort after binge-eating."

Embodied trauma from functional alienation triggered cognitive awakening. Critical points of purpose distortion involved absurd scenarios; a 29-year-old HR (P05) recalled: "Searching fruitlessly for a resume template for three hours, only to add 20 new 'organization tips'—self-mockery peaked then." Loss of control triggered behavioral breakdown; a 24-year-old graduate student (P07) described: "The bookmark folder felt like an uncontrollable avalanche; every attempt to organize was crushed by helplessness." Substitutive satisfaction exacerbated self-alienation; a 27-year-old illustrator (P10) lamented: "Hoarding 500 tutorials yet never drawing—the more I bookmarked, the more I despised my incompetence."

5. Results and Discussion

Using mixed methods, this study reveals the profound alienating nature behind bookmarking behavior on Xiaohongshu: User behavior systematically deviates from the instrumental rationality of pursuing efficient information utilization to the value rationality of pursuing meaning and satisfaction, ultimately serving the platform's value extraction. This complex alienation process is dynamically driven by the mutual construction of three logics: the seductive design of the technological architecture, user cognitive self-rationalization, and the exploitative mechanism of emotional capitalism.

The seductive design of the technological architecture constitutes the starting point of alienation. The platform's meticulously crafted one-click bookmarking function compresses user operational cost to near zero, its convenience highly acknowledged by most users. Simultaneously, algorithmic recommendations and instant digital feedback mechanisms (e.g., displaying growing bookmark counts) construct a potent behavior-reward loop akin to game leveling up. This design, as Fuchs warned, invisibly transforms users into digital laborers producing data value, while its core function—efficient information utilization—becomes significantly marginalized [7].

User cognitive self-rationalization becomes an adaptive strategy under technological inducement. As bookmarking alienates into a tool for emotional compensation like alleviating knowledge anxiety, users attempt to maintain an illusory sense of control by constructing meaning narratives like knowledge management or identity marking. While such narratives provide short-term anxiety relief (e.g., the illusion that bookmarking equals plan completion), the

vast intention-action gap between bookmarking and actual information processing leads users into a vicious cycle where increased anxiety drives more bookmarking, and more bookmarking intensifies guilt, as data shows a significant negative correlation between guilt and bookmarking intensity.

At a deeper level, the exploitative mechanism of emotional capitalism is the core driver sustaining and deepening alienation. Platform capitalization exploits users' complex emotional needs: On one hand, positive emotions like hope and immediate gratification are carefully designed as behavioral bait. On the other hand, negative emotions like guilt and loss of control are transformed into motivations driving continued participation in an attempt to bridge the gap, evidenced by a significant positive correlation between daily usage duration and bookmarking intensity. This process systematically extracts users' emotional surplus value, forming a covert chain of exploitation. This finding breaks through the traditional framework of pathologizing digital hoarding, establishing a dynamic alienation model of technological inducement, cognitive rationalization, and emotional exploitation in three-dimensional mutual construction.

Practical implications point to bidirectional intervention paths for users and platforms. For users, rebuilding behavioral sovereignty hinges on cognitive barrier breaking and behavioral reshaping. Metacognitive training—e.g., forcing self-questioning before bookmarking whether the action satisfies a real need or fear of missing out—helps identify and dismantle substitutive satisfaction traps, directly addressing the painful experience of users feeling self-loathing despite increased bookmarking. At the behavioral design level, the bookmark-action binding strategy is highly feasible, requiring users to immediately schedule a minimal practice window after bookmarking (e.g., watching the first 15 seconds of a tutorial or marking an execution date) to disrupt the chain of relying solely on bookmarking for instant pleasure. For information abandonment barriers, digital decluttering solutions like the 7-day cleanup rule (automatic archiving of unused notes after expiration) effectively reduce decision costs, with similar mechanisms proven to significantly improve email inbox efficiency.

For platforms, reconstructing ethical responsibility urgently requires substantive transformation towards benevolent technology. Function de-addiction is the primary step: Embedding a cooling-off mechanism (e.g., bookmarked notes viewable only after 24 hours) can weaken impulsive decisions, and hiding manipulative digital feedback (e.g., replacing "Bookmarked 5000 items" with neutral "Content saved") is crucial. More fundamental strategies involve developing action-conversion tools: An "intelligent sand-box" could automatically parse bookmarked content into executable plans (e.g., transforming recipe bookmarks into a weekly cooking schedule); a "note expiration alert system" automatically flagging content unopened for six months directly tackles the pain point where over one-third of users abandon management due to outdated information. Deeper change lies in algorithm transparency and user empowerment, e.g., offering an optional "no temptation mode" like disabling the recommendation feed, truly returning information autonomy to users. These designs aim not only to alleviate alienation but potentially reshape the platform's core value—for instance, if Xiaohongshu incorporated the proportion of actual post-bookmarking usage into algorithm weighting, it could transform from an anxiety-generating engine into a partner supporting user action.

6. Conclusion

In summary, using Xiaohongshu bookmarking behavior as a microcosmic lens, this study dissects the deep mechanism of functional practices alienating into emotional practices—a phenomenon prevalent in the digital age. Alienation is the product of a structural collusion: the low-cost, addictive, and manipulative feedback of the platform's technological architecture; the meaning narratives of user cognitive rationalization strategies aimed at alleviating anxiety; and the capitalization of both positive and negative emotions by the exploitative logic of emotional capitalism. Its direct manifestation is the behavioral paradox of extremely high bookmarking intensity coupled with extremely low utilization, with quantitative data showing median utilization rates far below expectations, alongside users experiencing intense psychological conflict coexisting immediate gratification and guilt. This finding not only deconstructs the contemporary cultural symptom of „bookmarking as action" but also reveals a new form of digital labor alienation concealed by technological myths.

At the theoretical level, the proposed technology-cognition-emotion three-dimensional mutual construction model provides a new framework beyond the pathological paradigm for understanding digital behavioral alienation. Typical narratives like „users loathe themselves more as they bookmark more" corroborated by quantitative data jointly indicate that alienation is a result of dynamic mutual construction, not mere individual pathology. Consequently, we advocate for digital human-centered design principles, asserting that technical tools should return to their service essence by granting users algorithmic rights. At the practical level, a three-tier intervention system combining user cognitive remodeling, platform functional

transformation, and policy ethical audits needs to be built. Future research must explore cross-cultural differences in behavioral alienation (e.g., significant disparities in utilization rates across platforms), the neuroadaptive mechanisms of bookmarking decisions, and critical warning indicators for the pathologization of hoarding behavior. This study ultimately calls for technology to be re-embedded into the lifeworld, serving genuine human needs and development, safeguarding a poetic human dwelling in the digital age.

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