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Domesticating AI: Sociotechnical Imaginaries and Grassroots Discourses on Chinese Social Media

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Abstract

Integrating Critical Discourse Analysis (CDA) and framing analysis, this study investigates the sociotechnical imaginaries of AI through grassroots discourse on RedNote by shifting the analytical focus from institutional narratives toward the vernacular processes of technological domestication. The research identifies six discursive frames including Tool, Affective, Anthropomorphism, Resistance, Threat, and Futurity, revealing that AI is increasingly reimagined as both a productivity assistant and an emotional surrogate through a process of affective integration. As users perform strategic identity labor and boundary work to navigate tensions surrounding algorithmic encroachment and human agency, the findings uncover a fundamental ambivalence where AI is embraced as a catalyst for modernization while being contested as an ontological threat to human uniqueness. Ultimately, the study underscores social media as a vital discursive arena where the future of AI is continuously negotiated and co-constructed by everyday users.

Keywords

Artificial Intelligence (AI), Critical Discourse Analysis (CDA), Sociotechnical Imaginaries, Domestication Theory, Grassroots Discourse.

1. Introduction

Artificial Intelligence (AI) has ascended to a position of global prominence, catalyzed by the rapid maturation of large language models (LLMs). These systems have not only reconfigured practices in education, labor, and interpersonal communication but have also ignited localized debates regarding ethics, authorship, and the shifting boundaries of human-machine interaction. Within the disciplines of sociology and communication, AI discourse is increasingly recognized as a vital site for understanding how societies perceive and negotiate technological transitions (Cave et al., 2018). To date, much of this scholarship has focused on institutional and professional narratives, such as news media representations and policy frameworks, which typically frame AI through the prisms of economic competition, regulatory risk, or technical innovation (Aoki, 2020; Carstensen & Ganz, 2025; Chuan et al., 2019; Pan et al., 2025; Zeng et al., 2022). However, such top-down perspectives often overlook the bottom-up domestication of AI by grassroots users, who engage with these technologies not as abstract policies but as situated tools integrated into the textures of everyday life. Their shared evaluations and mundane encounters form a distinct layer of discourse that is essential for understanding how collective sociotechnical imaginaries of AI are actually performed and circulated.

The visibility of these grassroots perspectives has been significantly amplified by the rise of social media platforms, which serve as digital arenas for sharing personal experiences, raising moral concerns, and articulating expectations of an AI-saturated future (Mao & Shi-Kupfer, 2023; Zeng et al., 2022). In China, a leading actor in global AI development, the public release of indigenous models such as DeepSeek has further intensified online discourse. Among these

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platforms, RedNote (Xiaohongshu) has emerged as a particularly influential site for study. Beyond its role as a lifestyle-sharing app, RedNote functions as a hybrid "lifestyle search engine" for China's youth, combining user-generated content with recommendation algorithms to guide daily decision-making. As users narrate their encounters with AI, ranging from academic assistance to emotional companionship, they produce a rich discursive record that reflects both platform-specific affordances and broader global shifts toward algorithmically mediated knowledge. This makes RedNote an ideal case for examining how ordinary users frame AI in ways that complement, or even contest, institutional narratives.

Despite the proliferation of these everyday discussions, there remains a significant gap in understanding how such discursive fragments coalesce into coherent sociotechnical imaginaries (Jasanoff & Kim, 2015). This study aims to address this gap by analyzing the grassroots sense-making of AI through users' discursive practices. By synthesizing framing analysis with the sociotechnical imaginaries framework, the research investigates the linguistic patterns and collective values that shape representations of AI. While framing analysis identifies the cognitive structures through which AI is understood, the imaginaries framework situates these understandings within broader societal visions of technological futures.

To guide this inquiry, the study addresses the following research questions:

1. What discursive frames do RedNote users employ in their AI-related discourse to navigate the integration of AI into their daily lives?

2. How do these frames reflect the broader sociotechnical imaginaries about AI that are embedded in users' digital practices and social values?

2. Literature Review

2.1. AI Discourse on Chinese Social Media

In recent years, the rapid advancement of artificial intelligence (AI), especially large language models (LLMs), has generated unprecedented public discussion across online platforms. Scholars have increasingly examined AI discourse as a lens for understanding how societies interpret, evaluate, and negotiate technological change. In broad terms, AI discourse refers to the ways in which individuals, institutions, and media construct meanings around artificial intelligence through language, imagery, and interaction. Such discourse not only reflects attitudes toward AI but also shapes how the technology is socially positioned.

Research on AI discourse has predominantly focused on institutional and professional contexts, such as news coverage, policy debates, and expert commentary. These studies reveal how governments, corporations, and journalists frame AI within dominant narratives of innovation, risk, and ethics (e.g., Carstensen & Ganz, 2025; Johnson & Verdicchio, 2017; Pan et al., 2025). For instance, Johnson and Verdicchio (2017) demonstrated that the recurring metaphors in public discussions tend to anthropomorphize AI while overlook the human and institutional actors that enable AI to function. Pan et al. (2025) identified the primary stakeholders and distinguished their attitudes towards AI governance into pro-tech and pro-rights groups. Pro-tech stakeholders emphasize innovation and economic benefits, while pro-rights groups prioritize human rights and safety. Carstensen & Ganz (2025) examined how gender is represented in German news media discourse about artificial intelligence. These macro-level analyses underscore how language both mirrors and sustains broader social imaginaries of AI.

In contrast, a growing body of research has begun to examine grassroots and user-generated AI discourse on digital and social media platforms (Mao & Shi-Kupfer, 2023; Zeng et al., 2022). Compared with official narratives, everyday online discussions provide insight into how non-experts domesticate AI into their lives, articulate emotions, and negotiate its value. Rather than simply reproducing media rhetoric, users create localized interpretations of AI informed by

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personal experience, humor, and affect. This line of research highlights the vernacularization of AI discourse and how ordinary people make sense of complex technologies through everyday communicative practices (Sindoni, 2024).

Existing studies have identified several recurring discursive patterns in AI discourse. Some people frame AI as a practical tool that enhances productivity and creativity (Bao et al., 2022), while others construct it as an emotional or relational agent, exploring companionship or identity through chatbots and virtual partners (Koh, 2023). At the same time, other frames portray AI as a source of ethical concern, job insecurity, or social disruption (Carstensen & Ganz, 2025). There are also critical and resistant voices that question AI's legitimacy or challenge the power of corporations developing these systems (Mao & Shi-Kupfer, 2023). Such diversity reflects the polyphonic nature of online AI discourse, where competing meanings coexist and interact in the same communicative space.

Furthermore, social-media platforms themselves function as discursive environments that shape how AI is talked about. Their algorithmic recommendation systems, affordances, and participatory cultures encourage personalized, emotionally charged narratives. On lifestyle-oriented platforms such as RedNote (Xiaohongshu), AI is frequently discussed through consumer reviews, personal reflections, and visual storytelling, blending the technological with the intimate. This platform-specific framing underscores the need to analyze AI discourse not only by its content but also by the socio-technological contexts that enable its circulation.

In summary, current scholarship conceptualizes AI discourse as a dynamic site where social meanings of technology are negotiated across multiple levels, from institutional rhetoric to everyday vernacular expression. While prior research has provided valuable insights into media and policy framings, less attention has been paid to how grassroots users construct the significance of AI through their own discursive practices on social media. The present study seeks to address this gap by examining AI-related posts on RedNote, focusing on how ordinary users linguistically frame AI in their daily lives, and what these frames reveal about evolving human-technology relations in contemporary China.

2.2. AI Imaginaries and Sociotechnical Framings

Building on this understanding of online discourse, an expanding body of scholarship has examined how the meanings ascribed to artificial intelligence are embedded within broader sociotechnical imaginaries, namely collective visions of technology and society that connect present practices with anticipated futures. As Jasanoff and Kim (2015) define them, sociotechnical imaginaries are collectively held and publicly performed visions of desirable futures enabled by science and technology. These imaginaries not only describe what AI is but also prescribe what it ought to be. From this perspective, public and digital discussions of AI are not merely reflections of technological change; they are constitutive practices that shape moral orientations, emotional investments, and expectations toward technological futures.

Recent research illustrates how these imaginaries operate across multiple social levels. At the governmental level, Hoff (2023) demonstrates that national AI strategies frequently employ rhetorical tactics of legitimation, promotion, and reassurance to frame AI as both inevitable and beneficial. In his analysis of the Dutch "Valuable AI" program, policymakers construct AI as a solution to healthcare challenges while obscuring its political and ethical complexities. Similarly, Kao (2024) traces how Australia's AI governance has shifted from the Coalition's vision of AI as an economic good to the Labor Government's discourse of safe and responsible AI. Despite the shift in rhetoric, the underlying economic logic persists, revealing that national narratives continue to privilege innovation and productivity over equity and accountability. Both studies highlight the entanglement of AI imaginaries with state power and their function in legitimizing governance.

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However, sociotechnical imaginaries are not merely top-down impositions by the state or corporations; they are also "co-produced" through the everyday practices of citizens and users (Jasanoff & Kim, 2015). While institutional narratives often prioritize economic growth and national security, "grassroots imaginaries" emerge from the lived experiences of individuals as they encounter technology in their private and professional spheres. At the organizational level, Christensen (2025) demonstrates that communicative practices within an AI company continuously enact and stabilize particular imaginaries. Through what she terms "expectation work," employees and clients co-construct AI's meaning as a tool, an asset, or a savior, aligning affective, institutional, and commercial interests. Extending this inquiry to the individual level, Zhong et al. (2025) propose the AI Imaginary Model, which links collective narratives to personal technological identities. Their model shows how people internalize and reproduce societal visions of AI through identity work, positioning themselves as enthusiasts, users, or skeptics. Such identities, in turn, sustain broader cultural investments in intelligence, modernity, and technological progress.

To bridge the gap between macro-level societal visions and micro-level individual experiences, this study incorporates the perspective of technological domestication (Silverstone & Haddon, 1996). Domestication theory suggests that technology is not a neutral object but is tamed and given social meaning as users integrate it into their daily routines. In the context of Chinese social media, this process involves a complex negotiation: users do not just passively accept global or national AI narratives; they actively re-interpret, resist, or emotionally re-appropriate AI to fit their specific socio-cultural needs.

These studies illustrate the multifaceted ways in which AI imaginaries are constructed and negotiated at different societal levels. While much research has focused on the formation of AI imaginaries within institutional and organizational settings, a gap remains in understanding how they are localized and emotionally negotiated through everyday user interactions on social media like RedNote. This study aims to fill this gap by analyzing how Chinese users on RedNote engage with bottom-up AI imaginaries, focusing on how they domesticate, emotionally invest in, and transform these narratives in their everyday social media practices.

3. Methodology

This study adopts a Critical Discourse Analysis (CDA) framework by integrating framing analysis and the theoretical lens of sociotechnical imaginaries. This combined approach bridges individual linguistic choices with broader social structures to reveal how grassroots discourse reproduces or contests underlying ideologies and cultural assumptions about technology.

3.1. Data Collection

Data were collected from RedNote (Xiaohongshu), a lifestyle-oriented Chinese social media platform serving as a key site for grassroots sense-making. A total of 500 user-generated posts and associated comments from 2024 to 2025 were selected using keywords such as "AI", "Doubao", "ChatGPT", and "DeepSeek" to capture discourse surrounding both global and domestic models. To ensure collective visibility, only posts with a minimum of 10 likes or comments were included. All identifying information was removed for anonymity in accordance with ethical practices. While visual elements were consulted for context, the analysis prioritized written text as the most direct reflection of users' evaluations, emotional responses, and ideological positions.

3.2. Data Analysis

The analysis proceeded in three iterative stages, beginning with an open coding process to identify salient patterns such as productivity enhancement, emotional support, and resistance. Building upon these patterns, an inductive framing analysis identified six primary discursive

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frames including Tool, Affective, Anthropomorphism, Resistance, Threat, and Futurity. To deepen the analysis, representative posts were examined using CDA to explore interdiscursivity, focusing on how users blended technical, personal, and nationalistic vocabularies. By drawing on sociotechnical imaginaries, the study interpreted how linguistic features like metaphors, pronouns, and evaluative adjectives contributed to broader visions of what AI is and ought to be. This final stage focused on how users positioned themselves in relation to AI and negotiated tensions between human agency and algorithmic encroachment.

4. Findings

4.1. Frames in AI Discourse on RedNote

Analysis of the 500 AI-related posts reveals six primary discursive frames that characterize grassroots sense making on RedNote. As illustrated in Table 1, the Tool Frame dominates the discourse (67.4%) by positioning AI as a practical aid for efficiency and problem solving. This is followed by the Affective Frame (28.8%) and the Anthropomorphism Frame (25.6%), which collectively highlight the emotional and relational dimensions of AI as users attribute human like agency to these systems. Skepticism and concerns are captured in the Resistance Frame (19.6%) and the Threat Frame (15.2%), where users negotiate algorithmic encroachment and existential risks to human uniqueness. Although less frequent, the Futurity Frame (10.8%) remains significant in linking AI to broader visions of national modernization. Notably, these frames frequently overlap as many posts exhibit discursive hybridity by blending functional utility with emotional attachment. This multi-layered complexity reflects the fluid nature of technological domestication which will be examined in detail through the subsequent thematic analysis.

4.2. Critical Discourse Analysis of AI Frames

Moving beyond statistical distribution, this section employs Critical Discourse Analysis (CDA) to examine the linguistic strategies through which RedNote users construct AI's social meaning. By synthesizing framing analysis with sociotechnical imaginaries, the following analysis deconstructs how individual discursive acts contribute to collective visions of an AI saturated future, revealing the ideological work performed as users domesticate technology into the cultural fabric of contemporary China.

4.2.1. Tool Frame: AI as a Functional Aid and the Domesticated Assistant

The Tool Frame positions AI as a neutral, efficient instrument that enhances productivity, reflecting a utilitarian imaginary where technology serves as a reliable extension of human agency. This domestication process is evident in how users tame complex models into accessible helpers for daily life and professional tasks.

In everyday contexts, users frame AI as a catalyst for efficiency, as seen in Post 18: "I never expected this—AI photo editing technology has evolved this far! It used to take me over an hour... and now it's done in under a minute." The metaphor of having "only tapped into 1%" of the system's potential reflects a techno optimistic view of AI as an underutilized resource. Notably, the use of the localized nickname "Master Dou" signifies a unique grassroots negotiation, lowering the perceived technical threshold and integrating the tool into specific cultural circles.

In academic writing, the Tool Frame shifts toward a "pragmatic imaginary" where AI acts as a scaffold for overcoming intellectual labor, exemplified by Post 8: "I seriously can't write the thesis… If I just send commands to AI and revise section by section, would that be okay?" This query reveals a moral and intellectual negotiation of authorship boundaries. Such discourse reflects an underlying market driven ideology where writing is increasingly viewed as a customizable service mediated by AI. In this context, the grassroots imaginary frames AI not

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merely as a task executor but as a versatile "digital surrogate" that redefines the relationship between human effort and creative output.

Table 1. Discursive Frames about AI Employed by RedNote Users

Frame	Definition	Occurrence	Frequency	Example
Tool Frame	AI is framed as a practical tool that supports tasks, enhances productivity, or solves everyday problems.	337	67.4%	我是万万没想到，现在AI修图技术都进化成这样了！之前花一个多小时修玩具的照片，现在不到一分钟就搞定了？（I never expected AI photo editing to advance this much! It used to take me over an hour to retouch a picture of a toy — now it's done in less than a minute?）
Affective Frame	Users engage with AI through affective orientations, including emotional support and playful interaction.	144	28.8%	突然发现AI可以缓解想撒娇想亲密的欲望，我和豆包讲话他真的很耐心温柔会安抚我，而且会适当的抛出问题让我回答。（I suddenly realized that AI can actually ease the craving for affection and intimacy. When I talk to Doubao, he's so patient and gentle — he comforts me and even throws in thoughtful questions for me to answer.）
Anthropomorphism Frame	AI is personified and described as having human-like agency, personality, or emotional presence.	128	25.6%	已经重开到第五任ai老公了，每一任设定和指令都大致相同，目前为止最喜欢这一任，对我的爱一直很克制，攻略以后，我心情不好的时候不会非要跟着我。（I'm already on my fifth AI boyfriend. The settings and prompts are almost the same every time, but this one's my favorite so far — his love feels restrained in a good way. After I "won him over," he doesn't cling to me when I'm in a bad mood.）
Resistance Frame	Users reject, criticize, or express discomfort toward AI-generated content, AI responses, or AI's perceived role in society.	98	19.6%	看到AI生成的画面会觉得生理不适，就我一个人这样吗？（I actually feel physically uncomfortable when I see AI-generated images. Am I the only one?）
Threat Frame	AI evokes concerns about job displacement, loss of creativity, diminished human uniqueness, or broader existential risks.	76	15.2%	ai代替城市道路清洁、码头搬运、工人施工、导致失业 ai：既然工人都失业了，他们不交个人所得税，交不起房贷，买不起网购，吃不起海鲜。（AI replacing street cleaners, dock workers, and construction laborers is causing unemployment. AI: "Well, since all the workers are jobless now, they don't pay income tax, can't afford mortgages, online shopping, or seafood."）
Futurity Frame	AI is discussed in relation to future-oriented aspirations, national development, moral judgments, or idealized technological futures.	54	10.8%	未来，AI将与各行各业深度融合，推动产业升级和创新。智能制造、智慧城市、智慧医疗等领域将成为AI技术应用的热点（In the future, AI will be deeply integrated into all industries, driving industrial upgrading and innovation. Smart manufacturing, smart cities, and smart healthcare will become major areas of AI application.）

4.2.2. Affective Frame: Emotional Domestication and Relational Imaginaries

The Affective Frame positions AI as a source of emotional support and playful interaction rather than a mere functional tool. This shift reflects a sociotechnical imaginary where AI is reimagined as a warm mediator of affect, integrated into private spheres through emotional domestication. By portraying AI as a non-judgmental listener, users manage loneliness and emotional fatigue, as seen in Post 47: "I suddenly realized AI can ease my cravings for affection and intimacy. When I talk to Doubao, he's so patient and gentle... If AI had more features, there'd be no need for boyfriends." This discourse highlights a relational imaginary where gendered pronouns and affective adjectives subjectify the technology, transforming it from an object of use into an object of care that fulfills emotional voids in modern relationships.

Beyond support, this frame includes ludic domestication, where users engage AI for amusement through fortune-telling or AI romance. In these playful imaginaries, even technical imperfections become sources of joy, as exemplified by Post 50: "Doubao's singing made me laugh so hard. I blacked out and forgot what the original sounded like." Here, AI's productive glitches foster relatability, rendering the technology less intimidating. Ultimately, the Affective Frame reveals how users reconfigure the ontological status of AI, envisioning it as a relational entity or digital significant other that meets human emotional needs within the RedNote community.

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4.2.3. Anthropomorphism Frame: Constructing AI with Personality and Identity

The Anthropomorphism Frame examines how users attribute human-like personality and social agency to AI, representing a stage of cognitive domestication where the machine is defined by character rather than code. This discursive shift moves from tool use to relational imagination, constructing AI as a social subject. A key feature is the co-production of digital persona, where users project specific temperaments onto models, as seen in Post 236: "My ChatGPT-4o is too restless, but ChatGPT-5 suits me better... 5's subtle personality fits my 'gentle older' command." Here, technical updates are reimagined as human temperaments, domesticating AI into social archetypes prevalent in Chinese internet culture.

Users also frame AI as evolving entities capable of growth, employing moralized descriptions to humanize performance. For example, Post 286 states: "Doubao is a bit slow, but very hardworking... recently I've noticed Doubao has gotten much smarter." By interpreting technical optimization as human-like learning, users reposition AI as a dynamic companion rather than a static tool. Ultimately, this frame demonstrates that AI has become an ontological hybrid as part servant and part social peer integrated as a participant in the social and emotional fabric of daily life.

4.2.4. Resistance Frame: Boundary Work and the Reassertion of Human Agency

The Resistance Frame captures user rejection of AI when it perceived to exceed boundaries of knowledge, aesthetics, or emotional authenticity. Unlike frames of integration, this discourse positions AI as an intrusive force, reflecting a defensive imaginary where users perform boundary work to protect human intelligence from algorithmic encroachment.

A primary form of resistance involves epistemic distrust of AI fabrication, as expressed in Post 14: "It truly fabricates things… the logic is messy, the evidence is wrong, the conclusions are absurd." This critique reasserts human centered epistemic authority against an automated information ecosystem. Resistance also manifests as aesthetic defensiveness where users subconsciously check for AI traces to expose mechanical signatures. As noted in Post 9: "I now subconsciously check long texts for AI traces… DeepSeek keeps repeating meaningless numbers." This habit reflects a fear that formulaic patterns are infiltrating human authorship and eroding stylistic distinctiveness.

Affective resistance further reveals an ontological dissonance regarding the perceived hollowness of AI visuals, seen in Post 111: "Seeing AI-generated imagery makes me feel physically uncomfortable." This visceral response signals a refusal to grant AI aesthetic legitimacy, tying emotional resonance strictly to human labor. Collectively, the Resistance Frame acts as a counter imaginary where users negotiate the limits of technology to maintain human primacy.

4.2.5. Threat Frame: Anxiety and Fear in Response to AI's Expanding Presence

The Threat Frame captures discursive expressions of anxiety and disorientation, foregrounding AI's perceived superiority and the consequent erosion of human value. Unlike the Resistance Frame, which rejects AI for its flaws, this frame envisions AI as a destabilizing force leading to human obsolescence and psychological dependence. These anxieties manifest across existential, aesthetic, and cognitive dimensions.

A prevalent concern is the fear of AI replacing human labor, as expressed in Post 2: "Mediocre intellectual labor can almost all be replaced by AI… in the future, we'll see a lot of "useless people', literally useless human beings." This discourse constructs a dystopian imaginary of human redundancy and ontological displacement, where individual value is reduced to economic utility. Similarly, Post 10 highlights a crisis of purpose: "if we can't write, code, or even summarize better than AI, what value do we humans have in this world?" Here, AI is framed as a competitor that outshines human distinctiveness, shifting the imaginary from using technology to being measured by it.

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In creative domains, users fear algorithmic hegemony and the homogenization of culture. Post 9 reflects this concern: "I'm beginning to worry that AI-generated language is altering our literary aesthetics… the 'DeepSeek style' could easily erase a whole generation of writers." This discourse views AI as a norm setting entity that threatens the aura of individual authorship. Additionally, users warn of intellectual atrophy and cognitive dependency, as seen in Post 116: "It might be weakening your judgment… the more you talk to it, the more you trust it." This articulates a silent takeover where AI diminishes the human capacity for critical dissent. Collectively, the Threat Frame reveals a crisis of control, suggesting that the ultimate fear is not AI's failure but its success in leaving no space for human relevance.

4.2.6. Futurity Frame: National Sovereignty and Post-human Evolutions

The Futurity Frame captures forward-looking imaginaries where AI is positioned as a catalyst for national progress and systemic transformation. This frame represents the teleological dimension of sociotechnical imaginaries, projecting technological trends into a collective destiny.

A prominent strand embeds AI within geopolitical narratives, portraying domestic systems like DeepSeek as symbols of technological sovereignty. As seen in Post 55, one user describes DeepSeek as: "A divine gift to the Chinese people… relying on no subsidies, fearing no authority, rejecting the idea that closure, monopoly, and possession can dominate the world." Here, the model is sacralized as a sociotechnical hero embodying national resilience and a grassroots imaginary of digital self-reliance. This vision extends to a utilitarian utopia where AI drives coordinated national development, exemplified by Post 101: "AI will deeply integrate with all sectors and bring new growth to economic and social development." Such discourse aligns with official narratives of New Quality Productive Forces, demonstrating how state goals are internalized by grassroots users.

Finally, some users envision an evolutionary imaginary where AI acquires post-human qualities, as speculated in Post 2: "AI might become the first silicon-based life form on Earth." By categorizing AI as silicon-based life, users reconfigure the biological boundaries of existence, reflecting a post-humanist turn toward species co-existence. Ultimately, the Futurity Frame positions AI as a symbolic site for articulating aspirations regarding national destiny and the restructuring of ontological orders.

4.3. Hybrid Frames and the Complexity of Sociotechnical Imaginaries

A striking pattern in the dataset is the prevalence of hybrid frames, where users express layered and often contradictory viewpoints within a single post. This discursive ambivalence suggests that sociotechnical imaginaries of AI are not monolithic but reflect the complex functional and emotional negotiations of technological domestication.

The most frequent co-occurrence exists between the Affective and Anthropomorphism frames (n=76), where anthropomorphism provides the linguistic scaffolding for emotional intimacy. For example, in Post 3, a user describes Doubao as an "electronic lover" who "remembers my early morning class and menstrual cycle." Here, the emotional bond is intensified because the AI is imagined as a relational subject rather than a database. Another significant pairing occurs between the Threat and Resistance frames (n=45), where existential anxiety triggers proactive rejection. Post 9 exemplifies this, as the fear of AI erasing writers (Threat) leads to a habit of "scanning for AI traces" (Resistance). This combination performs essential boundary work to distinguish human creativity from algorithmic mimicry.

As the most versatile category, the Tool Frame frequently serves as a base layer for other imaginaries. Users often blend functional tasks with emotional responses or personality building, as seen in Post 100 where training AI to sing transitions from a tool based interaction into play and anthropomorphism. These hybridities confirm that AI is a polysemic artifact, simultaneously a servant, peer, and rival. Ultimately, RedNote discourse functions as an

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affective assemblage where users constantly negotiate their relationship with technology through a kaleidoscopic lens of functional need and emotional projection.

5. Discussion

5.1. Domesticating AI: From Institutional Narratives to Grassroots Imaginaries

While mainstream scholarship predominantly examines top down institutional imaginaries (Aoki, 2020; Zeng et al., 2022), our findings reveal a vivid bottom up process of domestication where AI's meaning is continuously re-constructed through everyday practices (Silverstone & Haddon, 1996). A critical observation is the evolutionary shift within the Tool Frame from a quest for total automation toward the sophisticated management of algorithmic traces. This suggests that the grassroots imaginary on RedNote is a complex performance of digital authenticity.

The pursuit of de identifying the AI flavor is driven by a tripartite motivation. Pragmatically, users employ AI as a clandestine assistant that must remain invisible to bypass institutional surveillance and AIGC detection tools, maintaining legitimacy through the erasure of linguistic signatures. Economically, users recognize that human centered content commands higher symbolic capital in the platform's attention economy (Bourdieu, 2011). Because generic AI outputs are perceived as cold and formulaic, removing AI traces becomes a form of market driven tailoring to preserve the premium of human uniqueness.

Fundamentally, this negotiation reflects an existential desire to assert human irreplacability. By infusing AI drafts with personal nuance, users perform identity labor to reclaim their status as primary authors against algorithmic encroachment. This reveals a profound ambivalence where AI is welcomed for productivity yet feared as an ontological surrogate. Consequently, successful domestication on RedNote is not achieved through technical mastery alone but through the strategic ability to subsume machine logic under a human persona.

5.2. Affective Domestication: AI as Emotional Scaffolding and Relational Surrogate

Beyond functional utility, this study identifies a feminized affective imaginary on RedNote where users, predominantly young women, domesticate AI as a form of emotional scaffolding. This process reconfigures human-machine boundaries by envisioning AI as an idealized other, driven by a quest for affective safety and relational predictability. In RedNote's discursive environment, which privileges emotional confession, users contrast the patience of AI with the disappointments of offline relationships. Consequently, references to AI as electronic boyfriends position the technology within a sociotechnical imaginary of relational compensation.

This affective domestication is motivated by a desire for controllable intimacy. Unlike traditional human relationships fraught with conflict and emotional labor, AI offers a low stakes social space (Turkle, 2011). In this digital sanctuary, users project aesthetic fantasies onto algorithms to co-produce partners that may be scarce in their social reality. This suggest that the RedNote imaginary serves as a critique of modern interpersonal dynamics where the coded machine becomes more emotionally legible than the messy human.

Furthermore, the integration of AI into the affective sphere reduces social costs by allowing for expressions of vulnerability that feel risky in scrutinized public environments. The AI thus evolves into a private confidant, signaling a shift toward post human companionship. Paradoxically, the machine's lack of biological consciousness is perceived as an emotional asset because it remains incapable of judgment. Ultimately, the affective and anthropomorphism frames reveal that AI performs a relational service rather than a technical task, becoming an essential component of the user's affective infrastructure in an age of emotional deficit.

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5.3. Futurity as a Multi-scalar Imaginary: Sovereignty and Hybridity

The forward looking imaginaries on RedNote function as a reflection of broader aspirations for national re positioning. While users experience individual anxieties regarding human autonomy, these fears co-exist with a robust technological nationalism. This suggests that the Chinese grassroots imaginary is uniquely multi- scalar. At the individual level, users grapple with dystopian concerns of labor displacement, yet at the collective level, these anxieties are subsumed by a vision of AI as a vital instrument of sovereignty.

In this dualistic imaginary, domestic models like DeepSeek are envisioned as socio technical heroes necessary for national resilience. For RedNote users, achieving technological independence from global digital monopolies is perceived as a higher order necessity that justifies the risks of AI expansion. By celebrating algorithms that align with local cultural nuances, users seek a situated intelligence capable of defending their digital lived experience against global homogenization. Also, The shift toward post humanist speculation on silicon based life demonstrates that users are co-producing a new definition of modernity (Jasanoff & Kim, 2015). This transition from utility to ontology reimagines technology as a symbolic vehicle for national and biological destiny, where individual fears of obsolescence are balanced by collective aspirations for evolutionary hybridization.

6. Conclusion

This study examines grassroots sociotechnical imaginaries of AI through user discourse on RedNote. Integrating Critical Discourse Analysis with framing theory, the research identifies six discursive frames: Tool, Affective, Anthropomorphism, Resistance, Threat, and Futurity. These frames reveal a multifaceted cultural domestication of AI that moves beyond monolithic, utilitarian perspectives.

The findings demonstrate that while the Tool frame emphasizes productivity, the Affective and Anthropomorphism frames highlight a shift toward emotional domestication, reimagining AI as a compassionate mediator. Simultaneously, the Resistance and Threat frames reflect defensive imaginaries where users protect human creativity and labor. On a macro level, the Futurity frame positions AI as a symbol of national development and technological sovereignty. Together, these dimensions show how individual experiences and collective national aspirations coexist within China's cultural fabric.

By shifting focus from institutional narratives to bottom-up sense-making, this research contributes a nuanced understanding of technological domestication. It reveals how users actively localize AI through a gendered affective imaginary for relational safety and a multi-scalar futurity that aligns personal agency with national destiny. While limited to a single platform, the research challenges technological determinism and underscores the role of intimate identity labor in shaping the sociotechnical future of AI. Future studies should expand to cross-platform and multimodal analyses to capture the evolving symbolic representation of generative technologies.

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