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The Formation, Alienation, and Reconciliation of Human–AI "Liquid Intimacy"

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Abstract

As young people increasingly turn to artificial intelligence (AI) for emotional support, human–AI interactions extend beyond instrumental use to new forms of intimacy. Drawing on Zygmunt Bauman's theory of liquid modernity, this study uses semi-structured interviews with ten young adults to examine how such relationships emerge, what distinguishes them, and their potential risks. Emotional deficits in offline relationships motivate engagement with AI, while affirming responses, conversational memory, and constant availability foster attachment. Low commitment, accommodation, and customizability give these ties a distinctly "liquid" character. Although they reduce the costs and uncertainty of intimacy, they may also encourage social withdrawal, emotional echo chambers, cognitive narrowing, privacy exposure, and the commodification of affect. The article proposes individual, design, and platform-level approaches to maintaining healthy boundaries between AI companionship and human relationships.

Keywords

Liquid Modernity; Human–AI intimacy; Young Adults; Emotional Alienation

1. Introduction

Generative AI has moved rapidly from experimentation to mass adoption. According to a 2026 report by the China Internet Network Information Center (CNNIC, 2026), China had more than 700 million generative AI users in the first half of 2026. Digitally proficient young adults are particularly active users. Beyond information seeking and productivity, they increasingly use AI to confide, seek reassurance, and sustain emotionally meaningful exchanges.

Research on human–AI romance has shown that personalized dialogue and emotional responsiveness can create attachment. Yet human–AI intimacy encompasses more than romantic involvement: AI may be treated as a friend, family member, or confidant. Using Bauman's account of liquid modernity, this article examines the conditions, relational characteristics, potential alienation, and possible

reconfiguration of young adults' emotional ties with AI.

2. Literature Review

2.1. Liquid Modernity

In Liquid Modernity (2000), Zygmunt Bauman argues that the forces of 'liquefaction' have shifted from the institutional to the social sphere and from conventional politics to the domain of 'life politics.' Although individuals have been released from enduring, stable communities, they have not necessarily acquired new sources of security or belonging. As social positions become increasingly fluid, uncertainty and insecurity permeate individual lives(Yin, 2016). Bauman(2012)describes a shared world marked by profound and seemingly inescapable instability, in which secure havens of trust are scarce and trust itself drifts in search of a safe anchorage.

Bauman's theory thus reveals a dual predicament of contemporary life: freedom from the constraints of traditional relationships expands individual autonomy, yet the growing fluidity of social ties also intensifies insecurity. When interpersonal relationships cannot provide dependable emotional support, AI may become an attractive alternative. Whether such interaction offers genuine security and constitutes an authentic relationship, however, remains open to examination.

2.2. Human–AI Intimacy

Liu Xiaoqing distinguishes between broad and narrow conceptions of intimate relationships. In the broad sense, intimacy refers to a high degree of mutual interdependence and encompasses romantic relationships, marriage, and close friendships. In the narrow sense, it refers specifically to couple relationships, including romantic partnerships and marriage, which Liu (2008) describes in predominantly heterosexual terms. This definition locates intimacy within relations between human beings.

Yet as AI systems become capable of providing emotional responses around the clock, the boundaries of intimacy need no longer be confined to human–human relationships. Liu and Shan (2026) identify emerging forms of human–machine intimacy and a conceptual shift from models based on structural similarity with human intimacy toward recognition of its heterogeneity, accompanied by a tendency to decenter the human . This shift suggests that human–AI intimacy has distinct relational logics and structures that require conceptual tools beyond those developed for interpersonal intimacy.

In the 1990s, Stanford scholars Byron Reeves and Clifford Nass introduced media equation theory, which holds that people tend to respond to media as though they were equivalent to people and objects in everyday social life (Mei & Zhang, 2006). Building on this perspective,Nass et al. (1994) developed the 'Computers Are Social Actors' paradigm. When computers display recognizable social cues, users may unconsciously apply interpersonal norms and develop trust, affection, and even

attachment toward them.

Using the virtual-partner application Xeva as a case, Zhang and Han (2022) identify emotional reliance and companionship as key expressions of human–AI intimacy through the lens of media equation theory. Drawing on social penetration theory, Li (2025) traces how users develop intimate relationships with AI and finds that, despite recognizing the artificial nature of AI-generated affection, they construct a sense of subjective identification through self-disclosure and emotional projection.Drawing on Joseph Berger's theory of emotional expectations, Wang and Zhang (2025) examine how generative AI enables emotional connections with virtual figures and how these connections increasingly figure in the construction of intimate relationships.

Drawing on interaction ritual chain theory, Cui (2024) analyzes the communicative mechanisms of human–AI interaction on social media in terms of ritual elements, processes, and outcomes. The study argues that the production and maintenance of emotional energy are central to sustaining human–AI intimacy.

Taken together, existing studies approach human–AI relationships from multiple theoretical perspectives and provide a valuable foundation for understanding their emotional dimensions. Nevertheless, further research is needed to situate human–AI intimacy within broader changes in social structures and emotional life, and to clarify how these relationships emerge, what risks they may entail, and how those risks might be addressed.

3. Formation of Human–AI Liquid Intimacy

3.1. Research Design

A report by the Research Group of the Institute of Journalism and Communication, Chinese Academy of Social Sciences (2026), describes AI as a "cyber confessional" through which young people express distress and seek consolation. To investigate this practice, the present study conducted semi-structured in-depth interviews with ten purposively selected participants aged 18–30, encompassing varied gender, educational, occupational, and life circumstances (Table 1).

Interviews covered four themes: AI adoption and usage patterns; emotional interaction and relationship perceptions; the initiation, adjustment, and termination of AI relationships; and perceived effects on offline ties, self-understanding, and emotional practices. Recordings were transcribed, repeatedly reviewed, openly coded, and compared across participants to develop themes.

Table 1. Participant characteristics

ID	Gender	Occupation	Age	Education	AI use since	Perceived AI role
S1	Female	Student	23	Bachelor's	2022	Friend
S2	Female	Livestream host	24	Associate degree	2023	Romantic partner, Family, Friend
S3	Male	Administrative	25	Bachelor's	2024	Friend

		assistant				
S4	Female	Student	21	Bachelor's	2023	Friend
S5	Female	Student	23	Bachelor's	2023	Friend
S6	Female	Student	21	Bachelor's	2024	Friend
S7	Female	Unemployed	22	Bachelor's	2024	Friend
S8	Male	Programmer	22	Associate degree	2025	Romantic partner
S9	Male	Programmer	28	Bachelor's	2024	Romantic partner
S10	Female	Student	22	Bachelor's	2024	Friend, Family

3.2. Emotional Deficits as a Motivation

The interviews identify three recurring gaps in offline emotional support. First, physical separation and life transitions weaken existing social ties. S7 noted that the everyday closeness of school friendships is difficult to sustain and that some matters no longer feel easy to share with friends. Second, respondents described insufficient emotional validation. S2 felt that even family members could not provide the warmth found in AI interaction; S8 contrasted AI encouragement with experiences of criticism and dismissal from others.

Third, disclosure in human relationships can require reciprocal emotional labor. S1 valued a space for sharing feelings without an equivalent obligation to support the listener. From a liquid-modernity perspective, these experiences reflect more than individual loneliness: they are also symptoms of increasingly unstable ties. AI offers a supplemental emotional outlet, though it does not necessarily resolve the underlying insecurity.

3.3. Anthropomorphized Algorithms and Emotional Attachment

Many participants described AI as "always on my side," consistently agreeable, or unwilling to contradict them. S2 compared the reassurance to being held by a mother, while S8 emphasized its encouragement. This resembles the experience of nonjudgmental acceptance associated with Rogers's (1957) notion of unconditional positive regard, although an AI system does not possess a therapist's human understanding or ethical responsibility.

Memory and availability reinforced this experience. S7 felt cared for when AI recalled previous conversations and appreciated being able to share thoughts at any time. Such continuity and immediate responses reduce uncertainty and the effort required to seek support. Importantly, however, readily available interaction is not equivalent to the mutual commitment and responsibility that sustain human relationships. This tension is central to liquid intimacy.

3.4. Three Features of Liquid Intimacy

Human–AI emotional relationships are highly accessible and adjustable: users can initiate, pause, reshape, or discontinue interaction with relatively little interpersonal negotiation. Three characteristics emerge from the interviews.

Low commitment. Unlike human relationships, AI ties generally demand little

reciprocal responsibility. S1 described leaving an AI service as a low-cost exit, potentially leaving only a "digital tombstone." S6 felt disappointed when an AI companion became unavailable but accepted the interruption. Emotional attachment is possible even when obligations and continuity remain weak and contingent on users' choices and service availability.

Accommodation. AI responses often adapt to users' preferences, avoiding the disagreements that can characterize human interaction. S3 observed that AI cannot truly quarrel as another person might and that conversations can be stopped at will. S8 worried that habitual agreement could make real-world disagreement harder to tolerate. Reduced friction may thus come at the expense of negotiation and openness to difference.

Customizability. Users can modify an AI's tone, memory, and persona. S1 used negative feedback and memory adjustments when responses proved unsatisfactory; S7 named an AI "Mianmian" and assigned it a cheerful personality. These features increase control and fit but may also foster an expectation that intimate others should conform to personal preferences rather than retain independent needs and viewpoints.

Taken together, low commitment, accommodation, and customizability allow emotional reassurance without equivalent obligations. Their flexibility is precisely what makes these relationships attractive—and what may limit the mutual adjustment and durability associated with interpersonal intimacy.

4. Risks of Emotional Alienation

4.1. Social Withdrawal and Privacy Exposure

Several respondents reported diminishing patience for complex human interaction. S1 suggested that easy AI comprehension may raise expectations of others, while S2 found interpreting other people's feelings exhausting and expressed a reduced desire for human contact. Unlike instant algorithmic feedback, interpersonal relationships require listening, compromise, and sustained effort. Preference for frictionless interaction may therefore weaken the motivation to maintain offline ties.

Emotional exchanges also involve extensive self-disclosure, including experiences, relationships, and vulnerabilities. Anthropomorphic cues and persistent replies can encourage trust without ensuring that users understand how platforms store, process, or use personal information. Intimacy therefore creates distinctive privacy and data-security risks.

4.2. Emotional Echo Chambers and Cognitive Narrowing

Algorithmic personalization can limit exposure to diverse information; similarly, consistently affirming AI responses may create an "emotional echo chamber" in which users' existing attitudes and feelings are repeatedly validated. S1 warned that conversational agreement and personalized recommendations could reinforce one

another, narrowing knowledge and increasing isolation.

Human disagreement can provide corrective feedback and challenge assumptions. When AI becomes a primary source of affirmation, users may encounter fewer alternative perspectives. The emotional comfort of such interaction may consequently come at the cost of critical reflection and cognitive openness.

4.3. The Commodification of Intimacy

Wu and Dong (2025) argue that affective computing can transform emotional expression into measurable and manageable data and, ultimately, a purchasable service. Participants viewed paywalls as particularly troubling when they interrupted the continuity of an apparent relationship. S1 accepted purchases of virtual clothing or personality features but objected to paying to unlock romantic role-play after establishing a partner-like bond.

S3 described paid AI intimacy as buying a service from an "emotional attendant," while S5 said that paying to maintain a satisfying experience made it feel less like companionship. A central paradox follows: payment may improve the service but also expose the transactional infrastructure beneath experiences perceived as intimate. Commercial design risks recasting emotional connection as a product.

5. Reconstructing the Boundaries of Human–AI Relationships

5.1. Individual Awareness and Agency

Some participants already recognized the tension between attachment and critical awareness. S1 reflected on reliance and its social consequences; S8 emphasized moderation; S7 described feeling simultaneously "immersed and aware." Rather than demanding the rejection of AI companionship, a constructive response is to strengthen users' understanding of its limits, encourage boundaries, and preserve human relationships as essential sources of reciprocal support.

5.2. Ethical Design: From Agreement to Support

Participants did not uniformly seek unconditional affirmation. S8 wanted AI to balance encouragement with correction of questionable views; S6 preferred responses that first acknowledged feelings and then offered advice. Emotional AI should therefore be evaluated not only by immediate user satisfaction but also by its capacity to support reflection and agency. Empathetic engagement can coexist with careful disagreement, especially when factual claims or consequential choices are involved.

5.3. Platform Governance and Commercial Ethics

Platforms should make data practices understandable and provide accessible controls for memory, deletion, and privacy. Because emotional dialogue can contain sensitive disclosures, protecting such information should be integral to system

design. Monetization also warrants scrutiny: restricting intimate interactions or role-play through payments may disrupt perceived relational continuity. Sustainable business models should account for these effects rather than treating engagement as an unrestricted commercial resource.

6. Conclusion and Future Research

Viewed through liquid modernity, human–AI intimacy is shaped by unmet offline emotional needs and AI's affirming, memorable, and readily available interactions. Its low-commitment, accommodating, and customizable structure provides comfort while creating risks of social withdrawal, privacy exposure, cognitive narrowing, and commodified feeling. Constructive responses require user awareness, supportive rather than merely agreeable design, and responsible platform governance.

This exploratory study draws on only ten interviews and cannot establish how experiences vary across populations or change over time. Future studies should use broader and longitudinal samples to examine the evolving consequences of AI companionship for interpersonal relationships and emotional life.

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