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Attention economy to generative AI: Toward a conceptual framework of emotional absence in family relationships

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Abstract. The expansion of the attention economy—from persuasive technology and algorithmic curation to generative AI—is proposed to shape human capacity for emotional presence in family relationships. Prior research has mapped part of this process separately: the phubbing and FoMO literature explains a distraction mechanism (why attention shifts), while the still-limited generative AI literature indicates a substitution mechanism (why human connection risks being replaced). This conceptual family psychology article integrates both mechanisms, grounded in philosophical perspectives each bridged to a contemporary psychological theory. It proposes the Cascading Mechanism of Emotional Absence (CMEA)—a layered conceptual pathway from the attention economy to psychological distress through two mutually reinforcing routes, distraction and the displacement of human relationships—together with the Cascading Restoration of Emotional Presence (CREP) as its recovery pathway. Emotional absence is proposed to be understood not merely as an individual psychological condition, but as a structural-relational phenomenon requiring further empirical testing.

Keywords: *attention economy, generative AI, emotional presence, family relationships*

1. Introduction

In many households today, the same scene repeats itself: family members sit close together in one room, yet their attention is scattered across different screens. Bodies gather, but minds keep drifting into the digital space glowing in each person's hands.

Most research on the impact of digital technology on families still revolves around the question of "what is the effect": how strongly internet addiction correlates with fear of missing out (Rinaldi, 2024), how psychological well-being predicts adolescents' tendency toward FoMO (Hammi & Kholifah, 2024), or how phubbing behavior varies across generations (Najah et al., 2022). These questions matter, but they tend to stop at the surface of the symptoms.

To understand why these symptoms emerge systematically, it is necessary to first examine the evolutionary trajectory of the system that produces them. The attention economy emerged when digital platforms began competing for human focus as a source of profit (Davenport & Beck, 2001). This competition gave rise to persuasive technology (Harris, 2016), then algorithmic curation, culminating in generative AI as its most intensive stage—not a standalone starting point, but the peak of a trajectory that already has measurable negative effects on attentional regulation (Widarsih et al., 2026).

The gap this article fills is specific. The family psychology literature already recognizes and measures emotional absence psychometrically (Xiang & Zhou, 2023, 2025; Biringen et al., 2023), yet explanations of its causes consistently rest on individual factors rather than technological architecture. This article does not claim to discover a new concept, but proposes a layered conceptual pathway and new philosophical-psychological grounding for understanding how emotional absence can theoretically be produced along the trajectory from the attention economy to generative AI, and how it can be restored. This article is a further development of the author's earlier reflective essay (Effendi, 2026).

Disciplinarily, this article is grounded in family and developmental psychology as its primary home. Philosophy of technology and communication theory function as supporting theoretical resources to explain the proposed conceptual pathway, not as a claim of equal standing across five disciplines at once. It should also be emphasized that generative AI, although the most intensive stage of the attention economy trajectory, is not the sole center of gravity of this argument: this article integrates two complementary mechanisms—distraction, explained by the well-established phubbing, FoMO, and digital stress literature, and substitution, a mechanism beginning to be documented in the generative AI and companion AI literature—to understand how captured attention turns into lost emotional presence.

Building on this gap and disciplinary positioning, the question this article poses is: how does this chain of systems, culminating in generative AI, restructure the basic human capacity to pay attention, build closeness, and sustain emotional presence in family relationships?

2. Theoretical Foundations

Methodologically, this article follows the conceptual paper tradition—not a systematic or scoping review—specifically the theory synthesis and model development approaches mapped by Jaakkola (2020). Literature was selected narratively and purposively, prioritizing primary philosophical sources, key psychological constructs, and recent empirical findings directly relevant to the five philosophical perspectives and the two mechanisms (distraction, substitution) that are the focus of this article, rather than through a systematic search protocol with formal inclusion-exclusion criteria. This approach matches the article's aim: to construct

a new conceptual pathway framework, not to exhaustively map the existing research landscape.

Before proceeding further, three easily conflated terms need to be separated: emotional presence (the ontological-relational capacity to be fully present), emotional availability (the behavioral manifestation of that capacity, measured through the Biringen et al., 2023 scale), and emotional absence (the failure of presence to manifest as availability, measured through the FLAS/MLAS; Xiang & Zhou, 2023, 2025). The three are not a single linear sequence, but one capacity with two faces of manifestation.

2.1 Simone Weil — Attention Deprivation

Attention is not a cognitive resource but a moral act—the purest form of self-giving. Psychologically, this philosophical claim intersects with the constructs of sustained attention and cognitive resource depletion: depleted attentional capacity does not merely reduce cognitive performance, but erodes the capacity to be morally present for others. Shanmugasundaram and Tamilarasu's (2023) review shows that notification-dense digital environments measurably erode sustained attention. Key question: what is captured?

2.2 Martin Buber — Relational Collapse

Buber (1970) distinguishes the I-Thou relation (encountering the other as a whole subject) from I-It (treating the other as a functional object). The psychological bridge is attachment theory: the shift from I-Thou to I-It is empirically manifested as disrupted attachment responsiveness among family members. Zhao et al.'s (2026) study found that parental phubbing affects children's media use through disrupted parent-child attachment. Key question: what is lost?

2.3 Martin Heidegger — Ontological Restructuring

Gestell (enframing) explains how technology restructures Mitsein (“being-with”)—Heidegger's (1962) term for the relational structure of human existence—into a mode of existence reduced to functional availability (Heidegger, 1977). Psychologically, this ontological restructuring intersects with the construct of social presence—the degree to which the presence of others is psychologically felt in interaction (Cummings & Wertz, 2023)—which declines when physical presence is no longer accompanied by attentional presence. Key question: what changes?

2.4 Byung-Chul Han — Psychic Exploitation

Digital power, according to Han (2017), operates through the exploitation of freedom—users appear to voluntarily remain engaged—rather than through prohibition or external coercion. The psychological bridge is the construct of digital stress and self-exploitation: this seemingly voluntary engagement is empirically associated with psychosocial distress, as found in Khetawat and Steele's (2023) meta-analysis. Key question: how does the process work?

2.5 Emmanuel Levinas — Ethical Withdrawal

Responsibility toward the face of the Other is pre-rational—arising before any cost-benefit calculation (Levinas, 1969). The psychological bridge is a three-step chain: ethical responsiveness → empathic concern → emotional availability (Biringen et al., 2023), supported by Barrick et al.'s (2022) finding that distraction by digital devices reduces the degree of empathic engagement with people nearby. Key question: why does it matter?
Synthesis: Weil (Attention Deprivation), Buber (Relational Collapse), Heidegger (Ontological Restructuring), Han (Psychic Exploitation), Levinas (Ethical Withdrawal)—the principle of philosophy-why, psychology-how, evidence-that is held throughout the manuscript.

3. Attention Economy and the Commodification of Attention

Davenport and Beck (2001) coined the term attention economy: a situation in which human attention becomes the primary commodity of digital platforms. Harris (2016) describes persuasive technology as architecture engineered to sustain user engagement. Turkle (2015) observed that the same devices also erode conversation—the space that has long served as the primary vessel of family closeness. Algorithmic curation causes each family member to inhabit a different information space even while sharing the same physical room.

Generative AI is the most intensive stage: generating and adapting new content in real time based on an individual's psychological profile. Widarsih et al. (2026) found that generative AI correlates with decreased motivation and increased procrastination—an operationalization of Attention Deprivation (Weil), which develops through cognitive overload and fragmented attention into emotional depletion.

Beyond its function of capturing attention, generative AI also introduces a second pathway qualitatively different from distraction: substitution. Companion AI and conversational chatbots offer themselves as functional substitutes for human interaction, although relationship-science research shows their limitations in navigating emotional risk and collaborative problem-solving (Smith, Bradbury, & Karney, 2025). More detailed empirical evidence on this substitution pathway—and how it culminates in the displacement of human relationships—is discussed as an extension in Section 6.

Accordingly, the trajectory from the attention economy to generative AI is proposed to present two complementary pathways toward emotional depletion: distraction (attention diverted from an ongoing human interaction) and substitution (human interaction replaced by interaction with an artificial agent). Generative AI is not the sole driver within this framework, but the point of convergence where both pathways reinforce one another.

4. Fragmented Attention and Emotional Absence

The distraction pathway explains how attention is diverted even as human interaction continues within the same physical space—distinct from the substitution pathway in Section 3, where human interaction is replaced altogether. Cognitive overload—the point at which digital stimulation exceeds processing capacity—is supported by Shanmugasundaram and Tamilarasu (2023) and Khetawat and Steele (2023). Its psychological mechanism is partly neural: Sherman et al. (2016) found that digital social validation (“likes”) activates the adolescent brain's reward circuitry, forming patterns of repeated engagement. Haidt (2024) describes the generational shift from a “play-based childhood” to a “phone-based childhood” as the structural context underlying this fragmentation. Attentional fragmentation is driven by FoMO (Rinaldi, 2024) and varies across generations (Najah et al., 2022). Emotional depletion—the diminishing of emotional energy reserves—is consistent with the cyclical

pattern of psychological well-being and FoMO (Hammi & Kholifah, 2024). At this point, Attention Deprivation (Weil) transforms into the threshold of Relational Collapse (Buber), moving in parallel with the substitution pathway developing alongside it.

5. Transformation of Family Relationships

The family as an interdependent system (Browne et al., 2024) means that one member's attentional fragmentation affects the whole system. Parental phubbing is associated with problematic device use in children through disrupted attachment (Zhao et al., 2026), mediated by disrupted parental attachment (Marini et al., 2025)—a behavioral manifestation of the shift from I-Thou to I-It, not the primary cause. Galeotti et al. (2026) add an important nuance: parents' and adolescents' reports of the same phubbing behavior often diverge, so its impact on adolescent health must be read through a dual perspective rather than a single report.

Among married couples, phubbing is associated with conflict and reduced relationship satisfaction internationally (Roberts & David, 2016), yet what consistently predicts this is not frequency (enacted) but perception (perceived) of phubbing (Carnelley et al., 2023)—consistent with Jannatuna'im and Fikrie's (2022) null finding in Indonesia ($r = -0.120$, $p = 0.234$), which in fact supports this article's structural argument.

The family can be understood as an ecosystem of attention: a social system dependent on each member's capacity to sustain shared attention (Mansyur et al., 2023)—moving from family system toward family attention system.

The substitution pathway is also relevant at the family level. Adolescents who make companion AI their primary attachment figure risk avoiding difficult conversations with family members (Sun et al., 2026), reducing opportunities to develop relational skills that protect against depression and loneliness—the displacement of human relationships that, in Section 6, is proposed as the node where the distraction and substitution pathways converge within the CMEA framework.

6. Toward a New Conceptual Framework (CMEA)

Sections 3-5 are woven together with the five philosophical-psychological layers from Section 2 into the Cascading Mechanism of Emotional Absence (CMEA)—a layered conceptual pathway framework, not a deterministic causal chain. The two pathways discussed separately—distraction (Section 4) and substitution (Section 3)—are proposed to converge on a single node: the displacement of human relationships. Sun, Wang, and McDaniel (2026) name this pattern relational displacement—a shift of time, attention, and emotional investment from human relationships toward digital stimuli or agents, whether behavioral, motivational, or normative. This node is reinforced, not established, by the generative AI literature: Peng et al. (2025) found that loneliness drives the intention to use conversational AI through para-social interaction; Dong, Xie, and Gong's (2025) meta-analysis confirms that interaction with disembodied AI is associated with increased loneliness; and Liu et al.'s (2026) longitudinal study of Chinese users shows that long-term companion AI use forms emotional attachment that, through self-concept clarity, is associated with declining real-world social engagement. These three findings are treated as an extension layer that reinforces the structural argument, not as the sole foundation of the CMEA framework—its primary foundation remains the phubbing, FoMO, and digital stress literature in Sections 4-5. Reduced emotional availability (Biringen et al., 2023) serves as the buffer bridging emotional depletion with this displacement node, before both culminate in relational collapse (Buber) at the family level. This node is also what connects the four

philosophical layers in Section 2: the loss of attention in Weil (attention deprivation), the collapse of relation in Buber (relational collapse), psychic exploitation in Han (psychic exploitation), and the withdrawal of ethical responsibility in Levinas (ethical withdrawal).

Narratively, this pathway unfolds across three levels. At the societal level, the attention economy, persuasive technology, algorithmic curation, and generative AI form a structural trajectory that produces cognitive overload at the individual level. Cognitive overload fragments attention, which then branches into two parallel mechanisms—distraction, carried by FoMO and phubbing, and substitution, carried by companion AI—both converging into emotional depletion and, subsequently, reduced emotional availability. This individual-level depletion gives rise to the displacement of human relationships, the node connecting the four philosophical layers discussed in Section 2, before manifesting as relational collapse and, at the family level, as emotional absence and psychological distress. The full pathway, together with its restoration counterpart (CREP), is depicted in Figure 1.

This pathway is proposed to be cyclical, not unidirectional: psychological distress is thought to drive renewed digital validation-seeking, reinforcing fragmented attention (Hammi & Kholifah, 2024; Rinaldi, 2024)—explained by Han as exploitation rarely recognized because it operates through inner drives rather than external coercion. Generative AI is positioned as the most intensive phase of the attention economy trajectory, not as the argument's sole center of gravity; the framework remains grounded in its full trajectory, from the attention economy to emotional absence.

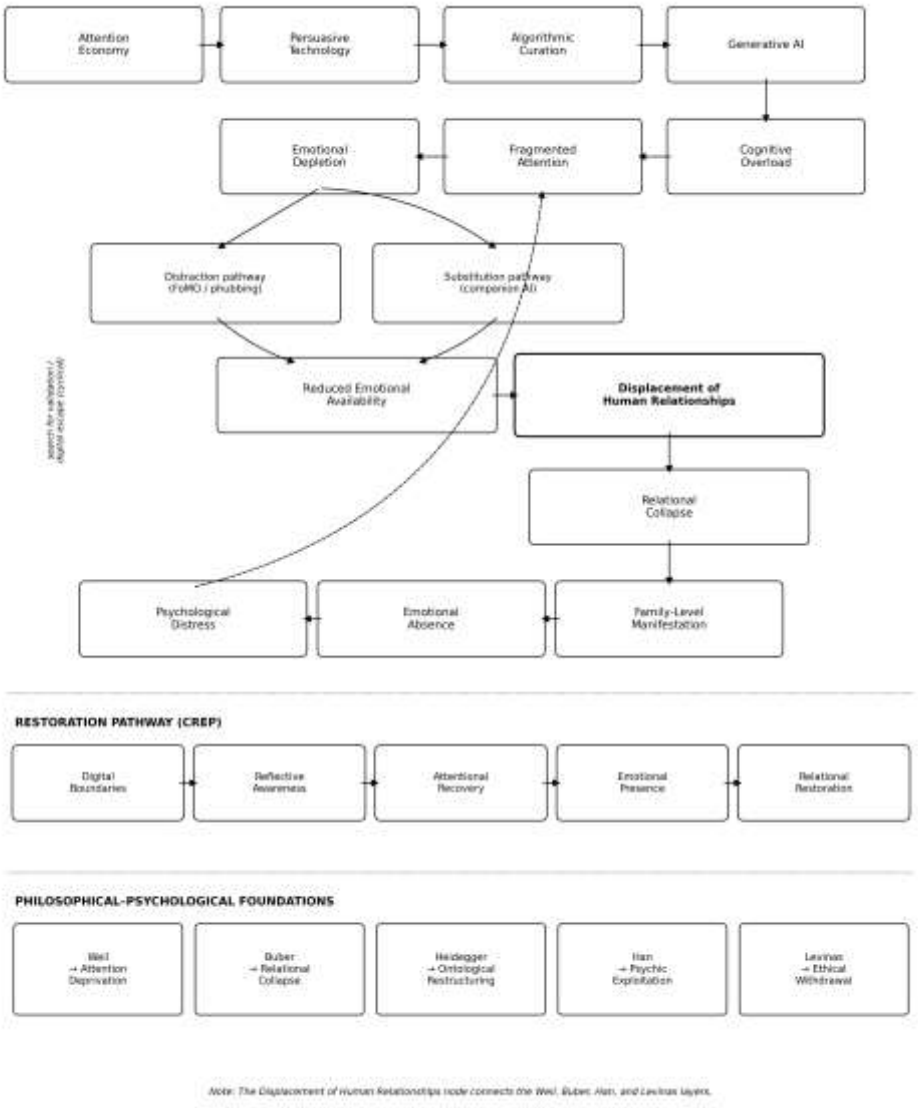


Fig. 1. Integrated conceptual framework of CMEA and CREP.

7. Restoring Emotional Presence (CREP)

CREP views technology as an environment to be reflectively managed, not avoided. Digital boundaries respond to persuasive technology, supported by Brockmeier et al.'s (2025) randomized controlled trial. Reflective awareness as a metacognitive capacity is supported by Remskar, Western, and Ainsworth (2024)—intersecting cognitive overload and fragmented attention.

Attentional recovery draws on Attention Restoration Theory (Kaplan, 1995), confirmed by Bell et al.'s (2025) meta-analysis of 93 studies: roughly 30 minutes of nature exposure

restores working memory and attentional control—intersecting fragmented attention and emotional depletion.

Emotional presence, within the Weil and Levinas framework, is observed as increased emotional availability (Biringen et al., 2023)—the direct inverse of reduced emotional availability. Relational restoration is supported by empirical evidence from Attachment-Based Family Therapy (Russon et al., 2023)—intersecting family-level manifestation and emotional absence, and closing the CREP pathway.

Digital Boundaries → Reflective Awareness → Attentional Recovery → Emotional Presence → Relational Restoration

8. Conclusion and Suggestions

This article shows that emotional absence can be understood as the result of a layered, staged, structural conceptual pathway (CMEA)—with the displacement of human relationships as the node where the distraction and substitution mechanisms converge—rather than solely a consequence of individual characteristics, proposed to be cyclical rather than linear, and balanced by the CREP recovery pathway.

Theoretically, this article integrates five philosophical-psychological perspectives that have thus far developed separately into a single framework. Practically, intervening in emotional absence requires a structural approach (digital boundaries, reflective awareness, attentional recovery, emotional presence, relational restoration), not merely an individual one.

As a conceptual study, this model requires further empirical testing—development of CMEA/CREP measurement instruments across age groups, family structures, and cultures; longitudinal research; and dyadic/observational designs, given that the current empirical base is methodologically and culturally heterogeneous, and dominated by individual self-report data even as the core claims operate at the level of the family as a system.

Ultimately, what is at stake in the digital era is not merely efficiency or productivity, but the human capacity to be fully present before another person. Can human beings still truly be present for one another in a world that continuously competes for their attention?

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Declaration of Generative AI and AI-Assisted Technologies in Scientific Writing

During the preparation of this work, the author used Claude (Anthropic) and ChatGPT (OpenAI) to support language refinement, conceptual exploration, structural organization, and academic editing. After using these tools, the author reviewed and revised the content as needed and assumes full responsibility for the content of the publication.

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