ISSN (Online) 2456 -1304

International Journal of Science, Engineering and Management (IJSEM)

Volume 13, Issue 10, October 2026

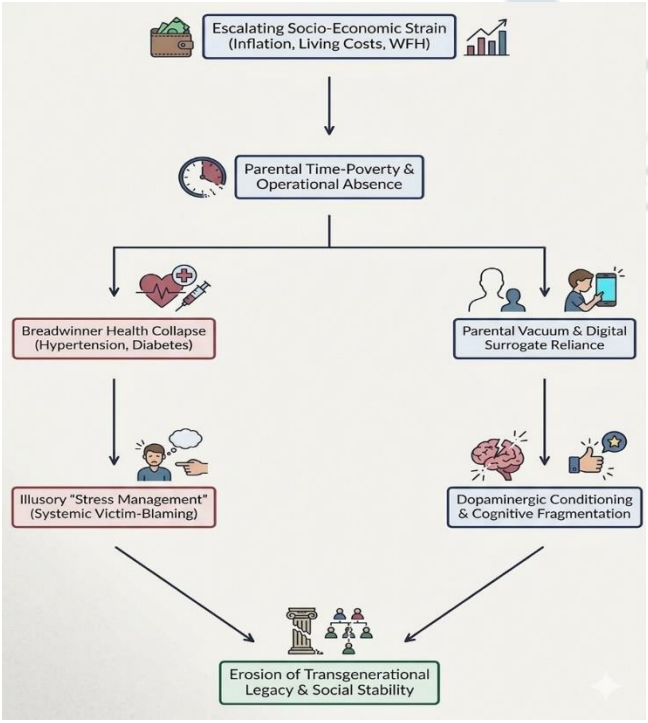
Reclaiming Domestic Mentorship and Enlightened Citizenship (*Saandroor*) in the Digital Era: A Socio-Biological, Epigenetic, and Pedagogical Synthesis

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Abstract*— The modern institution of the family faces a structural crisis driven by socio-economic pressures, workplace overreach, and persuasive digital media architectures. The transition from traditional single-income households to mandatory dual-income family structures—forced by inflation and rising living costs—has generated acute parental time-poverty. This operational absence disrupts the foundational triad of child rearing: Observation, Correction, and Monitoring. Concurrently, corporate communication tools bleed into domestic spaces, causing severe physical deterioration among breadwinners while corporate wellness initiatives offer superficial "stress management" remedies that displace systemic blame onto victims. Starved of domestic mentorship, developing minds are left to algorithmic surrogate caretakers ("Reels" and "Shorts") engineered for high-velocity dopaminergic reward cycles, leading to attention fragmentation, loss of deep reading capacity, and juvenile delinquency. Deconstructing nihilistic cultural fallacies, this study asserts parenthood as a permanent transgenerational biological (DNA/epigenetic) and moral duty. It proposes a structured 6-stage pedagogical hierarchy to transition youth from passive micro-content consumption to critical thinking and ethical mastery, laying a comprehensive roadmap to cultivate enlightened citizens (Saandroor).

Keywords: Socio-Biological Legacy, Parental Time-Poverty, Digital Micro-Content, Dopaminergic Conditioning, Transgenerational Epigenetics, Six-Stage Pedagogical Model, Saandroor Cultivation, Systemic Stress Critique.



Flow Chart 1. Conceptual Model of Socio-Economic Strain, Health Collapse, and Cognitive Fragmentation

Highlights

Structural Strain: Analyzes how inflation and work-from-home technological invasion induce parental operational absence, breaking core domestic oversight.

Corporate Critique: Exposes corporate "stress management" (mindfulness/yoga) as a superficial mechanism that blames victims for systemic economic exploitation.

Cognitive Impact: Maps the neuro-attentional degradation of algorithmic micro-content ("Reels" and "Shorts") on children's attention spans and executive function.

Biological Imperative: Invalidates fatalistic cultural clichés by establishing parenthood as an immutable, transgenerational epigenetic responsibility.

Pedagogical Solution: Constructs a 6-stage cognitive hierarchy to raise *Saandroor*.

Interest ➔ Approach ➔ Data Collection ➔ Deep Reading ➔ Critical Thinking ➔ Mastery

I. INTRODUCTION

The institution of the family stands as one of the most profound socio-biological achievements in human civilization. Human progress did not evolve merely through technological advancement or economic exchange, but through the establishment of domestic frameworks that

ISSN (Online) 2456 -1304

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Volume 13, Issue 10, October 2026

systematically replaced primitive, raw survival instincts with structured moral accountability, empathy, and social cohesion. Historically, the single-income household model allowed for a clear division of labor: while the primary earner engaged in external economic production, the domestic partner served as the irreplaceable anchor of the home. This domestic environment ensured healthy nutritional habits, emotional grounding, and continuous moral mentorship. In this traditional ecosystem, parenthood was understood not merely as a temporary biological status or a private choice, but as a universal transgenerational duty binding individuals to the ethical elevation of the collective future.

In the contemporary era, however, this foundational structure faces unprecedented pressures driven by severe socio-economic shifts and technological overreach. Relentless economic inflation and the escalating costs of basic necessities—including quality healthcare, housing, and education—have made dual-income participation an absolute necessity rather than a lifestyle choice. Both parents are forced into exhaustive work routines and perpetual financial sprints simply to ensure basic household survival.

Compounding this financial strain is the invasive nature of modern workplace technology. Digital communication tools extend corporate demands directly into the domestic space, forcing parents to answer workplace queries, resolve operational tasks, and manage emails long after official working hours. Consequently, even when parents are physically present at home, they remain operationally absent, consumed by personal exhaustion and ongoing employment pressures.

This severe deficit in domestic supervision has created an acute vacuum in three vital parental functions:

- **Observation:** Identifying early emotional, cognitive, and psychological shifts in developing children.
- **Correction:** Intervening early to discipline harmful habits and cultivate ethical boundaries.
- **Monitoring:** Consistently tracking long-term intellectual, educational, and behavioral trajectories.

Left unmonitored in an environment starved of emotional warmth and real-world guidance, children are increasingly exposed to algorithmic micro-content ("Reels" and "Shorts") designed to capture attention through rapid dopamine release. This cognitive conditioning shortens attention spans, eroding the patience required for deep reading and analytical thought. Unanchored by family mentorship, children grow up vulnerable to external ideological manipulation, often manifesting in adulthood as emotional volatility, juvenile delinquency, and broader social disorder. Furthermore, the physical toll of this economic treadmill manifests in widespread chronic illnesses—such as hypertension, diabetes, and cardiovascular collapse—among household breadwinners, exposing the hypocrisy of corporate "stress management" narratives that treat symptoms while ignoring root systemic exploitation.

II. LITERATURE REVIEW

The theoretical foundation of this study intersects across socio-economics, developmental psychology, cognitive neuroscience, transgenerational epigenetics, pedagogical scaffolding, and media ecology.

Socio-Economic Stressors & Parental Time-Poverty

Conger and Donnellan [1] demonstrated that financial hardship directly increases parental emotional distress, undermining warm, consistent parenting and diminishing domestic investments necessary for cognitive enrichment. Hornby and Lafaele [2] identified structural factors—such as dual-earner time poverty and rigid work schedules—as primary barriers preventing parents from actively monitoring their children's progress. However, Dearing et al. [3] highlighted that when parents sustain consistent academic engagement, children achieve strong literacy outcomes regardless of socio-economic strain.

Digital Micro-Content & Cognitive Fragmentation

Twenge et al. [4] documented a sharp generational decline in long-form reading among adolescents, correlating with smartphone app adoption. Lorenz-Spreen et al. [5] showed that high-paced digital content systematically compresses attention spans. Qin et al. [6] and Hilman [7] proved that algorithmic short-video engagement (TikTok, Reels) causes significant reductions in sustained attention, working memory capacity, and deep text processing capabilities.

Dopaminergic Rewiring & Algorithmic Exploitation

Volkow et al. [8] framed how intermittent rewards trigger hyper-dopaminergic responses in developing brains, driving compulsive feedback loops. Montag et al. [9] examined how digital platforms utilize neuro-behavioral architecture to exploit psychological vulnerabilities. Firth et al. [10] summarized neuroimaging evidence showing that continuous digital multi-tasking alters structural plasticity in brain regions responsible for executive control.

Epigenetics & Transgenerational Inheritance

Heijmans et al. [11] provided empirical proof that parental biological stress alters DNA methylation patterns across generations. Curley et al. [12] and Jablonka and Raz [13] demonstrated that paternal/maternal lifestyle choices—including substance exposure, chronic stress, and nutritional neglect—induce epigenetic alterations in germ cells, directly impacting offspring neurodevelopment.

Pedagogical Models & Media Re-Engineering

Bloom et al. [14] and Anderson and Krathwohl [1] established that higher-order thinking requires structured scaffolding. Vygotsky [15] emphasized that mental functions must be co-constructed through adult mentorship. Extending Postman’s [16] critique of media-saturated cultures, modern frameworks advocate for actively injecting educational rigor directly into emerging media formats.

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III. OBJECTIVES OF THE STUDY

The specific objectives of this study are:

1. To examine how inflation and escalating living costs generate parental time-poverty, leading to a breakdown in observing, correcting, and monitoring child development.
2. To evaluate the impact of chronic economic strain on breadwinner physiological health and critique corporate "stress management" narratives as superficial victim-blaming mechanisms.
3. To investigate the neuro-attentional mechanisms by which short-form digital media induce dopamine dependency and reduce attention spans in children.
4. To deconstruct passive cultural narratives (*"what did we bring and what will we take away"*) by delineating transient political authority from permanent parental responsibility.
5. To evaluate the transgenerational biological impact of parental health and epigenetic factors in preserving DNA integrity.
6. To construct a 6-stage pedagogical developmental framework from *Interest & Intent* to *Mastery & Application*.
7. To delineate actionable strategies for scholars and elders to leverage modern media platforms to re-engineer algorithmic outputs for societal benefit.

IV. SCOPE AND LIMITATIONS OF THE STUDY

Scope

The scope encompasses the structural intersection of socio-economic pressures, digital media ecology, neuro-attentional development, systemic health collapse, transgenerational epigenetics, and Tamil philosophical thought (*Tirukkural*). It provides an interdisciplinary framework linking parental time-poverty to cognitive fragmentation in youth and physical collapse in adults, offering a structured 6-stage pedagogical scaffolding model.

Limitations

The study is a qualitative socio-philosophical synthesis relying on literature across multiple disciplines rather than new primary empirical survey data. Cultural metaphors specifically address paradigms common to South Asian domestic structures. Furthermore, evolving media algorithms may require continuous updates to the proposed digital reclamation strategy.

V. RESEARCH METHODOLOGY

This study adopts a qualitative, socio-philosophical, and interdisciplinary theoretical framework.

Table 1. Interdisciplinary Synthesis Model

Domain / Model	Key Elements
Socio-Economic Domain	• Dual-Income Strain • Inflation & Time-Poverty • Technological Overreach
Neuro-Attentional Domain	• Digital Micro-Content • Dopaminergic Conditioning • Cognitive Fragmentation
Epigenetic & Genetic Domain	• Environmental Epigenetics • Paternal/Maternal Health • Transgenerational Inheritance
Integrated Pedagogical Model	• Six-Stage Cognitive Hierarchy • Cultivation of *Saandroor*

The analysis utilizes deconstructive argumentation, socio-biological mapping, and model construction to establish a pedagogical hierarchy:



Flow Chart 2. Pedagogical hierarchy

VI. RECLAIMING DOMESTIC MENTORSHIP AND ENLIGHTENED CITIZENSHIP (*SAANDROOR*)

Macro-Structural Drivers: Escalating Socio-Economic Strain

Macroeconomic Pressures, Inflation, and Living Costs

The contemporary socio-economic landscape is characterized by persistent inflationary pressures, surging real estate and healthcare costs, and stagnant wage growth across middle-income demographics. These combined forces create an ongoing baseline of economic instability, compelling households to reallocate discretionary time into income-generating activities. To maintain baseline middle-class standards, household units increasingly depend on dual-income arrangements or secondary gig-economy employment, elevating overall systemic friction and daily stress.

The Ambiguity of Remote and Hybrid Work Environments

While work-from-home (WFH) and flexible employment models were initially positioned as mechanisms for enhancing work-life balance, empirical observations demonstrate a blurring of operational boundaries. The spatial consolidation of the domestic sphere and the corporate workplace eliminates physical transition zones, causing professional expectations to intrude into time historically reserved for rest and family cohesion. Consequently, constant

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connectivity fosters hyper-vigilance, transforming the home from a sanctuary into a site of perpetual labor readiness.

Household Dynamics: Parental Time-Poverty and Operational Absence

Temporal Compression and Household Friction

As macroeconomic strain increases, parents experience acute time-poverty—a structural deficit in disposable time necessary for personal restoration, emotional availability, and direct child-rearing. Household routines become compressed into transactional routines focused purely on logistics (e.g., transportation, meal preparation, scheduling) rather than relational engagement. This constant state of temporal urgency generates chronic friction, reducing the baseline threshold for parental patience and deep engagement.

Operational Absence vs. Physical Presence

Operational absence occurs when caregivers are physically present within the household but cognitively and emotionally unavailable due to continuous professional demands or exhaustion. This phenomenon creates a deceptive environment: while adults are present inside the home, the qualitative functions of parenting—co-regulation, mentorship, active listening, and moral guidance—are functionally absent. As a result, the home environment lacks structural and emotional scaffolding.

Physical Health Degradation: Breadwinner Health Collapse

Metabolic and Cardiovascular Exhaustion

The sustained biological cost of navigating systemic economic strain manifests as chronic activation of the sympathetic nervous system and the hypothalamic-pituitary-adrenal (HPA) axis. Elevated baseline cortisol levels directly correlate with higher incidences of essential hypertension, systemic inflammation, insulin resistance, and Type 2 diabetes among primary household earners. The body's inability to enter parasympathetic recovery states leads to accelerated physical degradation, diminishing working capacity and long-term vitality.

Systemic Victim-Blaming and Illusory "Stress Management"

In response to widespread employee burnout and chronic illness, corporate and institutional structures frequently deploy individualized wellness initiatives—such as mindfulness apps, brief seminars, or surface-level stress-reduction campaigns. These interventions shift the structural responsibility of systemic overwork onto the individual worker. By framing systemic exhaustion as a failure of individual resilience or lifestyle choice, organizations evade structural reform while offering remedies that fail to alter the root drivers of physical collapse.

Developmental Impacts: Digital Surrogacy and Cognitive Fragmentation

Parental Vacuum and Electronic Surrogacy

When parental capacity is consumed by economic survival and physiological recovery, a developmental vacuum forms within the household. To manage childcare amidst demanding work schedules, families increasingly rely on digital devices—smartphones, tablets, and interactive media—as surrogate caretakers. Algorithmic content streams step in to occupy childhood attention, substituting intentional parental co-regulation with automated visual and auditory feedback loops.

Dopaminergic Conditioning and Attentional Degradation

Continuous interaction with hyper-stimulating digital platforms exposes developing neural architecture to short-cycle dopaminergic rewards. This conditioning raises the threshold required for sustained attention, rendering low-stimulus environments (such as reading, structured study, and interpersonal conversation) difficult to navigate. Over time, children experience cognitive fragmentation, characterized by shortened attention spans, heightened emotional dysregulation, reduced deep-reading capacity, and impaired critical thinking abilities.

Systemic Implications: Erosion of Transgenerational Legacy

Breakdown of Intergenerational Knowledge Transfer

The combination of parental exhaustion and youth digital immersion breaks the traditional chain of transgenerational transmission. Core cultural practices, value systems, resilience frameworks, and oral histories historically passed down through family interaction are displaced by standardized, algorithmically curated media consumption. The home ceases to function as a primary engine of character formation and cultural continuity.

Broader Consequences for Social Cohesion

When individual family units experience structural breakdown, the macro-level impact manifests across civil society. Cognitive fragmentation impairs civic engagement and analytical problem-solving, while chronic household stress reduces community participation and social trust. Ultimately, the synthesis of breadwinner health collapse and youth cognitive degradation destabilizes the foundational social structures required for long-term cultural resilience and social progress.

VII. FINDINGS

Parental Operational Absence: Dual-income necessity and work-from-home technological bleed create severe parental time-poverty, resulting in the breakdown of domestic observation, correction, and monitoring.

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Systemic Stress & Corporate Hypocrisy: Chronic workplace strain causes severe breadwinner pathologies (hypertension, diabetes, cardiovascular disease). Corporate "stress management" (yoga, meditation) acts as a superficial palliative that shifts systemic structural blame onto victims.

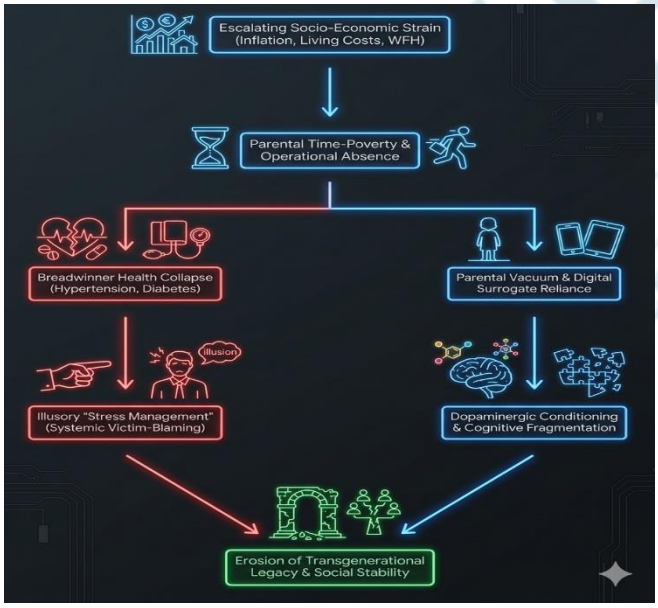
Neuro-Attentional Fragmentation: Exposure to algorithmic micro-content ("Reels" and "Shorts") conditions developing brains toward dopaminergic dependency, reducing attention spans and eroding deep reading capacity.

Permanent Biological Legacy: Delineating transient administrative titles from permanent biological legacy proves that parental lifestyle choices leave permanent epigenetic and DNA marks on future generations.

The Six-Stage Pedagogical Roadmap: Reclaiming cognitive capacity requires structured scaffolding to transition youth from passive digital consumers into critical thinkers (*Saandroor*).

VIII. DISCUSSION

The findings illustrate how macroeconomic strain directly causes domestic neglect. When parents are operationally absent, smart devices become surrogate caretakers. The resulting short-form media consumption exploits dopaminergic reward pathways, destroying the patience required for textual synthesis.



Flow Chart 3. Dopaminergic reward pathways

Corporate wellness programs fail because they treat physiological breakdown as an individual failure rather than an economic exploitation problem. To counter this, parents and institutions must enforce digital boundaries and adopt the six-stage cognitive hierarchy to rebuild sustained focus and preserve transgenerational health.

IX. CONCLUSION AND RECOMMENDATIONS

Conclusion

The crisis of child development and breadwinner health is rooted in socio-economic strain, corporate overreach, and persuasive technology. Restoring societal balance requires re-asserting parenthood as an immutable transgenerational biological duty and implementing structured pedagogical scaffolding.

Recommendations

Domestic: Establish device-free family zones and apply the 6-stage pedagogical hierarchy to foster deep reading.

Institutional: Legislate the "Right to Disconnect" and adjust wages against inflation instead of offering superficial wellness programs.

Educational: Re-integrate long-form textual analysis into school curricula and actively produce high-value micro-content to reclaim algorithms for ethical youth development.

Acknowledgements

The author expresses sincere gratitude to the academic fraternity and colleagues at Nandha Engineering College for providing an environment conducive to interdisciplinary scholarship. Deep appreciation is extended to family members for their daily inspiration, and reverence is offered to classical Tamil literature (*Tirukkural*) for its ethical principles on cultivating *Saandroor*.

Data Availability Statement

Data supporting the conceptual models of this study are included within the article. Secondary data sources and literature referenced are publicly accessible via cited academic databases.

Declaration of Conflicting Interests

The author declares that there is no conflict of interest regarding the publication of this article. No financial, personal, or professional relationships exist that could inappropriately influence or bias the content, findings, or conclusions presented in this manuscript.

Use of AI and AI-Assisted Technologies

Gemini AI-assisted technologies (specifically large language models) were used to support the drafting, structural refinement, English translation, and academic formatting of the manuscript.

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Funding Source

No funding for this study.

REFERENCES

[1] L.W. Anderson, D.R. Krathwohl (Eds.), A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives, Longman, 2001.

[2] B.S. Bloom, M.D. Engelhart, E.J. Furst, W.H. Hill, D.R. Krathwohl, Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook I: Cognitive Domain, David McKay Company, 1956.

[3] R.D. Conger, M.B. Donnellan, An interactionist perspective on socioeconomic status and family processes, Annu. Rev. Psychol. 58 (2007) 175–199.

[4] J.P. Curley, R. Mashoodh, F.A. Champagne, Epigenetic bases of paternal lifetime experiences in offspring behavior and neurobiology, Prog. Neuro-Psychopharmacol. Biol. Psychiatry 35 (2011) 352–363.

[5] E. Dearing, H. Kreider, S. Simpkins, H.B. Weiss, Family involvement in school and low-income children's literacy: Performance, longitudinal trajectory, and continuous role, Child Dev. 77 (2006) 653–670.

[6] J. Firth, J. Torous, B. Stubbs, J.A. Firth, G.Z. Steiner, L. Smith, M. Alvarez-Jimenez, J. Gleeson, D. Vancampfort, C.J. Armitage, J. Sarris, The "online brain": How the Internet may be changing our cognition, World Psychiatry 18 (2019) 119–129.

[7] B.T. Heijmans, E.W. Tobi, A.D. Stein, H. Putter, G.J. Blauw, E.S. Susser, P.E. Slagboom, L.H. Lumey, Persistent epigenetic differences associated with prenatal exposure to famine in humans, Proc. Natl. Acad. Sci. U.S.A. 105 (2008) 17046–17049.

[8] Hilman, Neuro-attentional shifts in short-video environments: Impacts on working memory capacity and sustained focus in higher education, J. Media Psychol. Cogn. 16 (2024) 88–104.

[9] G. Hornby, R. Lafaele, Barriers to parental involvement in education: An explanatory model, Educ. Rev. 63 (2011) 37–52.

[10] E. Jablonka, G. Raz, Transgenerational epigenetic inheritance: Prevalence, mechanisms, and implications for the study of heredity and evolution, Q. Rev. Biol. 84 (2009) 131–176.

[11] P. Lorenz-Spreen, B.M. Mønsted, P. Hövel, S. Lehmann, Accelerating dynamics of collective attention, Nat. Commun. 10 (2019) 1759.

[12] Montag, H. Yang, J.D. Elhai, On the psychology of TikTok use: A first glimpse from empirical findings, Front. Public Health 9 (2021) 641673.

[13] N. Postman, Amusing Ourselves to Death: Public Discourse in the Age of Show Business, Penguin Books, 1985.

[14] Y. Qin, B. Omar, A. Musetti, The addiction behavior of short-form video app TikTok: The information processing perspective, Heliyon 8 (2022) e11364.

[15] Thiruvalluvar, Tirukkural (V. S. Rajam, Ed. & Trans.), International Institute of Tamil Studies, c. 31 BCE / 5th Century CE.

[16] J.M. Twenge, G.N. Martin, H. Spitshoek, Trends in U.S. adolescents' media use, 1976–2016: The rise of digital media, the decline of TV, and the near-disappearance of print, Psychol. Pop. Media Cult. 8 (2019) 329–345.

[17] N.D. Volkow, G.J. Wang, J.S. Fowler, D. Tomasi, F. Telang, Addiction: Beyond dopaminergic reward circuitry, Proc. Natl. Acad. Sci. U.S.A. 108 (2011) 15037–15042.

[18] L.S. Vygotsky, Mind in Society: The Development of Higher Psychological Processes, Harvard University Press, 1978.