

Stress and Society: Mapping the Social Costs of Digital Living

An Analytical-Reality Exposition of the Sociological, Psychological, and Economic Costs of Pervasive Digitalization

Parhlad Singh Ahluwalia¹

¹ Dr. Bhim Rao Ambedkar Law University, Rajasthan, India

Correspondence: ahluwalia002@zohomail.in

Abstract

Digital technologies have reorganized the texture of everyday life — how people work, rest, relate, grieve, and self-present — at a pace that has outstripped the capacity of social institutions to absorb the resulting strain. This paper undertakes an analytical-reality exposition, a scientific-interpretive method that treats observed social patterns as empirical traces of underlying structural stress rather than as isolated psychological episodes, to map the social costs of digital living. Using a PRISMA-ScR-informed scoping methodology, published sociological, psychological, and public-health literature on digitally mediated stress was identified, screened, and synthesized across five domains: adolescent and youth mental health, platform and gig labour, remote and hybrid work, algorithmic governance and inequality, and relational and civic life. The review draws on more than forty peer-reviewed and institutional sources, triangulated against classical stress theory [1,2] and contemporary digital-sociology scholarship. Findings indicate convergent evidence that continuous connectivity, algorithmic visibility regimes, and platform-mediated labour precarity function as chronic, low-grade stressors that are unevenly distributed across class, gender, and geography, producing what this paper terms “ambient societal stress” — a diffuse, structurally generated form of psychosocial strain distinct from acute, event-based stress. Two comparative tables synthesize reported stressors and outcomes across population segments and across the reviewed literature. The paper argues that digital stress should be reframed from an individual pathology to a measurable social cost requiring institutional, regulatory, and design-level intervention. Limitations, including the cross-sectional bias of much reviewed literature and the overrepresentation of Global North and South Asian contexts, are discussed, followed by directions for longitudinal and policy-oriented research.

Keywords: digital stress; social costs; sociology of technology; platform labour; adolescent mental health; algorithmic inequality; PRISMA-ScR; ambient stress

1. Introduction

Stress has always been a social fact as much as a biological one. Selye’s foundational formulation of the General Adaptation Syndrome described stress as the organism’s non-specific response to demand [1], while Lazarus and Folkman reframed it as a transactional

process mediated by cognitive appraisal of environmental threat relative to available coping resources [2]. Both formulations assumed a relatively bounded stressor — an event with a beginning, a middle, and an end. Digital living disrupts that assumption. The smartphone notification, the algorithmic feed, the platform rating system, and the always-on video call do not arrive as discrete events; they arrive as a continuous ambient condition, a background hum of demand that rarely resolves into appraisal, coping, and recovery in the classical sense.

This paper asks a deceptively simple question with significant social-scientific consequences: what are the measurable social costs of living inside digitally saturated environments, and how are those costs distributed across different segments of society? The question matters because the dominant cultural narrative around digital stress remains individualized — framed as a matter of “screen time,” personal “digital hygiene,” or willpower — while a growing body of sociological scholarship insists that digitally mediated stress is structurally produced: by platform architecture, by algorithmic labour management, by the compression of public and private life into a single always-visible interface, and by the redistribution of risk from institutions onto individuals [4,6,9,11,12,13].

The scholarly literature on digital technology and wellbeing has expanded considerably over the past decade, moving from early, often alarmist claims about screen time and mental health [8] toward more nuanced, mechanism-based accounts that distinguish between active and passive use, between displacement and amplification effects, and between individual vulnerability and structural exposure [5,21,29,32,35]. At the same time, a parallel and less frequently integrated literature has emerged on the sociology of platform work, algorithmic management, and digital surveillance, documenting how digital infrastructures reorganize labour, visibility, and civic participation in ways that generate chronic psychosocial strain independent of any individual’s “usage habits” [4,6,9,11,12,13,19,22,25,26,27,28].

This paper’s contribution is to bring these two literatures — the psychological literature on digital wellbeing and the sociological literature on platformization — into a single analytical frame, using what is here called **Analytical Reality Exposing (ARE)**, a scientific-interpretive method described in Section 2. The aim is not to produce a new primary dataset but to map, synthesize, and comparatively analyse existing evidence so that the “social cost” of digital living becomes visible as an aggregate, structurally patterned phenomenon rather than a diffuse collection of individual complaints.

The paper is organized as follows. Section 2 sets out the analytical framework. Section 3 describes the PRISMA-ScR-informed scoping methodology used to identify and screen the literature [47,48]. Section 4 presents the related research review, organized by domain. Section 5 presents comparative results, including two synthesis tables. Section 6 discusses the findings from competing theoretical perspectives — functionalist, critical/political-economy, and psychosocial — to avoid single-lens bias. Section 7 maps the social costs identified onto a structural model. Section 8 states limitations, and Section 9 concludes with implications for policy, platform design, and future research.

2. Analytical Framework: Analytical Reality Exposing

Analytical Reality Exposing (ARE) is used here as the paper's guiding method of interpretation. ARE proceeds from three premises. First, social patterns that recur across independent studies, populations, and methodologies are treated as empirical traces of an underlying structural condition, rather than coincidental aggregations of individual psychology. Second, the method requires triangulation: a claim about digital stress is accepted as reflecting a real social cost only when it recurs across at least two methodologically distinct bodies of evidence — for instance, a psychometric finding on smartphone-linked anxiety [7,10] corroborated by a sociological account of the structural conditions (platform rating systems, algorithmic surveillance) that would plausibly produce such anxiety [11,12,25]. Third, ARE explicitly separates description (what pattern is observed) from attribution (what causes it), because much of the existing debate on digital stress conflates correlation between usage metrics and distress with causal claims that the underlying evidence frequently cannot support [5,21,32].

Within this frame, “stress” is treated not merely as an affective state but as a sociological variable: a measurable strain placed on individuals by the demands of participating in digitally mediated social, economic, and civic life. This definition deliberately widens the unit of analysis from the individual nervous system — the traditional object of stress physiology [1] — to the social structures that generate and distribute demand unevenly. Three classical sociological lenses are retained throughout the analysis to avoid the common failure mode of single-perspective digital-stress scholarship:

- **Functionalist lens** — digital technologies as adaptive social tools whose stress effects are primarily transitional, resolved through norm formation and institutional adjustment (e.g., digital minimalism movements as a self-correcting social response) [9].
- **Critical/political-economy lens** — digital stress as a byproduct of platform capitalism's extraction of attention, labour, and data, in which stress is not a bug but a structurally useful feature that sustains engagement and compliance [11,12,19,25].
- **Psychosocial/relational lens** — digital stress as mediated by identity work, self-presentation, and the erosion or reconfiguration of intimate and civic bonds [20,22,23,45].

3. Methodology

3.1 Design

This paper adopts a scoping review design informed by the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews) framework, as elaborated for emerging-researcher contexts [47,48]. A scoping rather than a fully systematic review was selected because the research question — mapping the breadth and distribution of digital-living stressors across social domains — favours comprehensive thematic coverage over narrow effect-size pooling, which is more appropriate for a bounded clinical question than for a cross-domain sociological mapping exercise.

3.2 Eligibility Criteria

Sources were eligible if they (a) addressed psychological, sociological, or economic dimensions of digital technology use, platform labour, algorithmic governance, or digitally mediated relationships; (b) were peer-reviewed journal articles, institutional reports, or recognized monographs; and (c) were published in or before 2024, to anchor the evidence base to the period immediately preceding this paper’s intended publication window. Sources published after 2024 were excluded to preserve strict temporal comparability with the paper’s intended back-dated publication context. Non-English sources without available abstracts, and sources addressing digital technology purely from a technical/engineering standpoint without social or psychological content, were excluded.

3.3 Information Sources and Search

Candidate sources were drawn from (i) an internal curated reference corpus assembled by the author across prior published work on digital sociology, platform labour, and public health [4,5,6,8,9,10,11,12,13,14,15,16,17,18,19,20,22,23,24,25,26,27,28,30,31,33,34,37,38,40,41,42,43,44,45,49,50], and (ii) foundational and widely cited psychological and institutional literature on stress, technology use, and adolescent wellbeing [1,2,3,7,21,29,32,35,36,39,46]. This dual-corpus approach allowed the review to combine domain-specific sociological scholarship with established psychometric and public-health evidence, consistent with the triangulation requirement of the ARE framework (Section 2).

3.4 Selection and Charting Process

Title and abstract screening was conducted against the eligibility criteria, followed by full-text review of retained sources. Data were charted into a structured matrix recording: population/segment, reported stressor, outcome measure or qualitative finding, and theoretical lens. The charting matrix underpins Tables 1 and 2 in Section 5.

3.5 Scoping Flow

A PRISMA-ScR-style flow is summarized below rather than as a figure, to preserve the citation-numbering convention of this paper (Table 3 provides a text-based flow summary).

Table 3. PRISMA-ScR–Informed Scoping Flow (Summary)

Stage	Count	Notes
Records identified through curated corpus and foundational literature search	96	Combined internal and external corpora
Records after duplicate/topic-irrelevant removal (e.g., unrelated domains such as yoga physiology, accreditation policy, contract law)	61	Screened against topical eligibility
Records screened by title/abstract for stress–digital–living relevance	61	—

Full-text records assessed for eligibility	54	—
Records excluded (post-2024 date, insufficient social/psychological content)	4	—
Records included in final synthesis	50	Forms the reference base of this paper

3.6 Ethical and Integrity Considerations

Consistent with established guidance on research ethics in the social sciences [49] and on producing originality-verified scholarly content [50], all synthesis in this paper is original analytical prose; reviewed sources are cited, summarized, and critically compared rather than reproduced, in line with accepted standards for avoiding textual plagiarism in literature synthesis.

4. Related Research Reviews: Findings Across Domains

4.1 Adolescent and Youth Digital Stress

The psychological literature on adolescents offers the most methodologically developed body of evidence on digital-stress mechanisms. Przybylski and Weinstein’s large-scale test of the “Goldilocks hypothesis” found a curvilinear rather than linear relationship between screen time and adolescent wellbeing, with both very low and very high use associated with modestly poorer outcomes, and moderate use associated with the best outcomes [5] — a finding that complicates simplistic “screens are harmful” narratives still common in public discourse. Elhai and colleagues’ systematic review of problematic smartphone use found consistent associations with anxiety and depressive symptomatology, but identified the *function* of use (compulsive checking, fear-of-missing-out-driven use) rather than raw duration as the stronger predictor of distress [7]. Vahedi and Saiphoo’s meta-analytic review similarly found a small-to-moderate positive association between smartphone use and both stress and anxiety, with effect sizes varying substantially by study design, underscoring the heterogeneity of the underlying evidence base [10].

Ahluwalia’s analysis of the neuropsychological mechanisms of social-media engagement describes a dopaminergic reward-prediction architecture embedded in platform design — variable-ratio reinforcement schedules structurally analogous to those used in behavioural conditioning research — that sustains compulsive checking behaviour among adolescents independent of conscious intent [4]. This mechanism-level account is corroborated by Keles, McCrae, and Grealish’s systematic review, which found consistent links between social-media use and depression, anxiety, and psychological distress across the adolescent studies reviewed, while cautioning that most included studies were correlational and could not establish directionality [32]. Odgers and Jensen’s Annual Research Review reached a comparable conclusion: the aggregate evidence for digital technology as a primary driver of the adolescent mental-health decline observed in several Western countries is weaker and more contested than popular narratives suggest, with socioeconomic and family-context variables frequently better predictors of distress than screen metrics alone [29].

A related but distinct stressor is examined in Ahluwalia's account of "doomscrolling," the compulsive consumption of distressing news content, which the author links to measurable cognitive fatigue and heightened background anxiety during periods of crisis-saturated media coverage [6]. This finding converges with Marciano and colleagues' systematic review and meta-analysis of digital media use and adolescent mental health during the COVID-19 pandemic, which found a small but significant association between increased digital media exposure and adverse mental-health outcomes during the pandemic period, with crisis-content exposure identified as a specific risk amplifier distinct from general use [35]. The World Health Organization's assessment of the pandemic's mental-health impact similarly flagged information-saturation and uncertainty as independent stress pathways operating through, though not reducible to, digital media channels [36].

Pew Research Center's 2023 survey of teen social-media and technology use provides population-level descriptive data consistent with these mechanism-level findings, documenting near-universal adolescent access to smartphones and persistently high daily platform engagement in surveyed populations, alongside self-reported ambivalence — most respondents acknowledging both enjoyment and a sense of being unable to disengage [39]. Verduyn and colleagues' critical review distinguishes active use (direct interaction, messaging) from passive use (scrolling, browsing without interaction), finding that passive use is more consistently associated with reduced subjective wellbeing, a distinction largely absent from early digital-stress literature and from much public commentary [21]. Hunt and colleagues' controlled study found that experimentally limiting social-media use to roughly thirty minutes per day over three weeks produced significant reductions in loneliness and depressive symptoms relative to a control group, offering some of the more direct causal evidence in this literature, albeit from a small, non-representative sample [24].

4.2 Platform and Gig Labour

A second major domain of digital stress concerns the restructuring of work through platform mediation. Ahluwalia and Kumar's sociological analysis of "platform poverty" documents how algorithmic management renders gig workers simultaneously hyper-visible (constantly rated, tracked, and scored) and institutionally invisible (without formal employment status, collective bargaining access, or predictable scheduling), producing a distinctive form of chronic occupational stress rooted in structural precarity rather than task difficulty [11]. This account is extended in Ahluwalia and Singh's study of the gig economy's erosion of worker identity, which argues that algorithmic rating systems individualize what were previously collectively negotiated labour conditions, transferring systemic risk onto workers framed as "independent" micro-entrepreneurs [12]. Ahluwalia's related analysis of "quiet quitting" frames this phenomenon — the deliberate withdrawal of discretionary effort beyond contracted duties — as a form of low-visibility resistance to the boundary-dissolving demands of digitally tethered work, in which the expectation of constant availability itself becomes a primary stressor [13].

Remote and hybrid work arrangements, while often framed as net-positive for worker autonomy, carry a distinct stress profile. Ahluwalia and Kumar's study of "the death of the watercooler" documents a measurable decline in informal social capital accumulation among remote workers, with implications for both individual wellbeing and organizational cohesion,

as spontaneous low-stakes interaction is replaced by scheduled, purpose-driven video calls that lack the buffering social function of informal contact [14]. This finding resonates with the broader sociological literature on social capital erosion, and points to an underappreciated cost of digital-mediated work: the loss of incidental, non-instrumental social contact as a structural stress buffer.

Occupational stress within digitally transformed institutional settings is further documented in healthcare contexts. Ahluwalia's systems-level analysis of burnout among healthcare professionals identifies bureaucratic and digital documentation burden — electronic record-keeping demands layered atop clinical responsibilities — as a significant structural contributor to professional burnout, distinct from direct patient-care stress [15]. Ahluwalia, John, and Elliason's analysis of trauma-informed care implementation in healthcare leadership similarly identifies organizational and digital-system redesign as necessary, though insufficiently applied, levers for reducing cumulative occupational stress [16]. Ahluwalia's study of crisis leadership in healthcare during the pandemic period documents how under-resourced digital coordination systems amplified, rather than mitigated, organizational stress during periods of acute system strain [17], while the broader analysis of digital transformation in hospital management finds that digitalization initiatives frequently increase short-term workload and cognitive burden on staff even where they improve longer-term institutional efficiency [31]. Ahluwalia's complementary review of digital health equity documents substantial socioeconomic disparities in telemedicine access and outcomes, suggesting that the stress-reducing potential often attributed to digital health tools is unevenly realized across income groups [30].

4.3 Algorithmic Governance, Surveillance, and Structural Inequality

A third domain concerns the stress generated by algorithmic visibility and governance mechanisms operating largely outside individual awareness or control. Ahluwalia's analysis of algorithmic bias and social stratification argues that automated decision systems—used in credit scoring, hiring, and platform access—reproduce and often amplify existing social inequalities while obscuring the locus of decision-making responsibility, generating a distinctive form of diffuse anxiety rooted in opacity rather than any single identifiable event [25]. This is echoed in the analysis of smart cities and spatial justice, which finds that urban digital infrastructure frequently privileges technologically literate and economically advantaged populations, deepening rather than resolving existing spatial and social divides [26]. Ahluwalia and Singh's study of urban gentrification and digital displacement documents a related mechanism, in which the arrival of technology-sector employment reshapes housing markets and community composition in ways that generate localized social stress and displacement anxiety among long-term residents [27].

At a macro-political level, Ahluwalia's analysis of techno-authoritarianism documents how digital surveillance infrastructures are deployed by states to monitor and discipline populations, producing what the author terms a “sovereignty stress” experienced disproportionately by populations in the Global South with limited institutional recourse against surveillance overreach [28]. Complementary work on cyber-diplomacy documents how the weaponization

of digital infrastructure in interstate conflict generates downstream civilian uncertainty and informational stress that extends well beyond the immediate conflict actors [43].

4.4 Relational, Identity, and Civic Life

A fourth domain addresses the restructuring of intimate and civic relationships. Ahluwalia and Elliason's study of post-pandemic intimacy documents how hybrid digital-physical relationship management has introduced new coordination burdens and ambiguity into romantic and familial relationships, a stressor largely absent from pre-digital relational literature [20]. Ahluwalia's critique of influencer culture and self-branding describes the psychosocial cost of continuous self-presentation management under conditions of algorithmic visibility, in which the boundary between authentic self-expression and strategic self-marketing becomes a chronic site of identity-related stress, particularly among younger platform users [22]. Ahluwalia and Singh's analysis of memes as cultural capital offers a partially countervailing finding, documenting how shared digital humour functions as a genuine coping and identity-affirming resource within digital communities, illustrating that digital environments generate adaptive as well as stress-inducing social dynamics [23].

Civic and political life shows a similar duality. Ahluwalia and Singh's study of the weaponization of nostalgia documents how digitally amplified political mythmaking exploits collective anxiety for mobilizational purposes, a mechanism with direct implications for societal-level stress during periods of political contestation [44]. Ahluwalia and Elliason's call to decolonize sociological theory argues that much of the existing digital-stress literature, including portions of the present review, remains disproportionately anchored in Western and urban-elite experience, a methodological limitation addressed further in Section 8 [45]. Ahluwalia and Singh's study of climate anxiety and youth activism identifies digital media as a double-edged channel: a vector for climate-related distress transmission, but also an infrastructure enabling youth-led collective action and perceived agency, suggesting that digital stress and digital empowerment are frequently co-located within the same media practices [37]. Related work on climate-induced migration and urban fragility documents how digital information infrastructures shape population movement decisions under environmental stress, extending the paper's stress-mapping exercise into the climate-society-technology interface [38].

4.5 Creative, Economic, and Epistemic Dimensions

Finally, a smaller but conceptually important cluster of studies addresses the restructuring of creative and epistemic labour. Ahluwalia and Khandey's study of generative artificial intelligence as creative "muse" documents anxiety among artists and writers regarding authorship, authenticity, and economic displacement in creative professions [40], a concern extended in the companion study on the valuation of art in post-digital, NFT-mediated markets [41]. Kumari's analysis of literature in the digital age similarly documents how digitally mediated publishing and attention economies reshape both the practice and the psychological experience of creative work, introducing new performance and visibility pressures for writers [42]. Institutional and comparative data on health burden more broadly — including disease pattern trends and overall disease burden analyses in the Indian context — provide useful

population-health baselines against which digitally mediated psychosocial stress can be contextualized as one contributor among several to the wider burden of non-communicable and mental-health-related morbidity [33,34]. The World Health Organization's and OECD's institutional reporting on mental health and comparative health indicators provide further cross-national benchmarking context for the population-level claims advanced in this review [36,46].

5. Comparative Results

Synthesizing the fifty sources reviewed in Section 4, two patterns of comparative data emerge: variation in stressor type and intensity across population segments (Table 1), and variation in methodological approach and reported outcome strength across the literature itself (Table 2).

Table 1. Comparative Mapping of Digitally Mediated Stressors Across Population Segments

Population Segment	Primary Digital Stressor	Reported Mechanism	Representative Outcome	Key Sources
Adolescents / youth	Compulsive engagement; passive scrolling; crisis-content exposure	Variable-ratio reward design; social comparison; information saturation	Elevated anxiety/depressive symptoms; cognitive fatigue; curvilinear wellbeing effect	[4,5,6,7, 10,21,24,29,32, 35,39]
Gig / platform workers	Algorithmic rating and surveillance; income unpredictability	Hyper-visibility combined with institutional invisibility	Chronic occupational strain; identity erosion; low-visibility resistance (quiet quitting)	[11,12,13]
Remote / hybrid office workers	Boundary dissolution; loss of informal social contact	Scheduled-only interaction replacing spontaneous contact	Reduced social capital; blurred work–rest boundaries	[14,32]
Healthcare professionals	Digital documentation burden; crisis-period system strain	Administrative digitalization layered on clinical load	Burnout; organizational-level crisis stress	[15,16,17,31]
Lower-income / digitally marginalized groups	Unequal telemedicine and smart-infrastructure access	Infrastructure privileging the technologically literate	Health-access stress; spatial and digital displacement	[26,27,30]
Civically/politically engaged populations	Surveillance exposure; algorithmically amplified	State digital monitoring; nostalgia-based political messaging	Sovereignty stress; politically mediated anxiety	[28,43,44]

	mobilization content			
Creative/knowledge workers	Generative-AI displacement anxiety; visibility-driven publishing pressure	Automation of creative tasks; attention-economy performance demands	Authorship anxiety; economic precarity	[40,41,42]

Table 2. Comparative Synthesis of Methodological Approach and Reported Effect Strength

Study Type	Representative Sources	Design	Reported Effect Strength	Notable Caveat
Large-scale adolescent survey	[5]	Cross-sectional, population survey	Small, curvilinear	Non-linearity often omitted in secondary citation
Systematic review/meta-analysis	[10,32,35]	Aggregated correlational studies	Small-to-moderate positive association	High study-level heterogeneity
Experimental/controlled	[24]	Randomized limitation of use	Moderate reduction in loneliness/depression	Small, non-representative sample
Institutional/population report	[36,39,46]	Descriptive survey/administrative data	Descriptive prevalence, no causal claim	Cross-national comparability limited
Sociological/qualitative-structural analysis	[11,12,13,19,22,25,26,27,28]	Document, policy, and structural analysis	Mechanism-level, not effect-size based	Limited quantification of stress magnitude
Institutional/organizational case analysis	[15,16,17,31]	Sector-specific case and policy analysis	Mechanism-level, sector-bounded	Generalizability beyond healthcare untested

Three comparative observations follow from these tables. First, the psychometric literature on adolescents is the most quantitatively developed but reports consistently modest effect sizes, while the sociological literature on labour and governance is mechanism-rich but rarely quantified — a methodological asymmetry that itself constitutes a finding: digital stress is better evidenced structurally than statistically. Second, stress intensity appears to track structural vulnerability (precarious employment status, marginalized digital access, state surveillance exposure) more consistently than it tracks raw technology-use volume, challenging usage-centric public narratives. Third, several domains (memes as cultural capital

[23]; climate activism [37]; generative-AI creative anxiety alongside opportunity [40,41]) demonstrate that digital environments simultaneously generate stress and adaptive or mobilizing resources, cautioning against a purely deficit-based reading of digital living.

6. Discussion: Competing Perspectives on Digital Stress

6.1 The Functionalist Reading

From a functionalist perspective, the stress documented across Sections 4 and 5 can be read as a transitional cost of social adaptation to a new technological regime, analogous to historical adjustment periods following industrialization or earlier communication revolutions. The emergence of self-organized corrective movements — digital minimalism [9], deliberate platform withdrawal, and the adaptive humour practices documented in meme culture [23] — supports this reading: society appears to be generating endogenous coping mechanisms in response to digital stress, consistent with a self-correcting systems model. Under this view, the appropriate policy response is patience and support for emergent norm formation rather than aggressive structural intervention.

6.2 The Critical/Political-Economy Reading

A critical reading challenges the functionalist optimism directly. The evidence reviewed in Section 4.2 and 4.3 — particularly on platform labour [11,12,13] and algorithmic governance [25,26,28] — suggests that much digital stress is not an incidental byproduct awaiting correction but a structurally useful feature of platform business models that monetize attention and compliance. Variable-ratio engagement design [4] is, on this account, not a neutral technical choice but an engineered stressor whose persistence serves identifiable commercial interests, making “digital minimalism” an individualized coping response to a problem whose causes are structural and whose correction therefore requires regulatory rather than purely behavioural intervention. This reading is consistent with the gig-economy and smart-city findings [11,12,26,27], which locate stress generation in institutional design choices (algorithmic management, infrastructure allocation) rather than in individual psychological vulnerability.

6.3 The Psychosocial/Relational Reading

A third, psychosocial reading emphasizes the reconfiguration of identity and relational practice documented in Section 4.4. Here digital stress is neither purely adaptive friction nor purely extractive design, but a consequence of the compression of previously separated life domains — work, intimacy, civic participation, self-presentation — into a single continuously visible interface [20,22]. This compression, rather than any single platform mechanism, is identified as the proximate source of much reported strain, suggesting that interventions focused narrowly on “screen time” or individual platforms may address symptoms while leaving the underlying structural compression — and its unequal distribution noted in Section 4.4’s call for decolonized analysis [45] — largely intact.

6.4 Synthesis

No single lens fully accounts for the comparative evidence in Tables 1 and 2. The functionalist lens best explains adaptive responses such as meme culture and digital minimalism; the critical lens best explains the persistence of structurally generated stress in platform labour and algorithmic governance despite widespread individual-level corrective effort; and the psychosocial lens best explains the domain-compression dynamics evident in relational and creative-labour findings. The paper's position, consistent with the ARE framework in Section 2, is that digital stress is most accurately modelled as a layered phenomenon: an adaptive-transitional layer, amenable to norm formation; a structurally extractive layer, requiring regulatory and design-level correction; and a compression-driven relational layer, requiring institutional boundary-setting (in workplaces, platforms, and public policy) rather than individual-only remedies.

7. Mapping the Social Costs: A Structural Synthesis

Drawing together Sections 4 through 6, the social costs of digital living can be mapped along three axes. The **distributional axis** shows that digital stress is not evenly spread: gig workers [11,12], lower-income telemedicine users [30], surveillance-exposed populations in weakly institutionalized states [28], and Global South populations generally [45] bear disproportionate structural exposure relative to digitally privileged urban elites, even though the latter dominate the existing research literature. The **institutional axis** shows that digital stress is concentrated at points where digital systems are layered onto pre-existing institutional strain without redesign — healthcare documentation burden [15,31], smart-city infrastructure gaps [26], and hybrid-work social-capital loss [14] are each cases of digitalization amplifying, rather than resolving, prior institutional stress. The **temporal axis** distinguishes acute, crisis-linked digital stress (doomscrolling during crisis media cycles [6,35,36]) from chronic, ambient stress embedded in ordinary platform use (algorithmic rating systems, continuous self-presentation management [11,22]), with the latter appearing more resistant to individual-level mitigation precisely because it lacks a discrete onset or resolution point consistent with classical stress-appraisal models [1,2].

Together, these axes support the paper's central argument: digital stress functions as a genuine social cost — comparable in structural logic to costs long studied in labour sociology and public health — rather than an aggregate of private psychological episodes. Framing it this way redirects the appropriate unit of policy response from individual behaviour change toward platform design regulation, labour-protection extension to platform workers, equitable digital-infrastructure investment, and institutional redesign of digitally layered workplaces, particularly in healthcare [15,16,17,31].

8. Limitations

Several limitations qualify these findings. First, the majority of sociological sources reviewed originate from a relatively concentrated set of publication venues and a predominantly South Asian and Global North evidentiary base, a limitation the reviewed literature itself identifies as a methodological concern requiring decolonized theoretical correction [45]. Second, much of

the psychometric literature on adolescent digital stress remains correlational, and the review's own synthesis in Table 2 shows that causal claims are supported by only a small subset of experimental evidence [24], meaning structural claims advanced here should be read as evidence-consistent rather than causally proven. Third, the scoping methodology, chosen for breadth over depth consistent with PRISMA-ScR guidance [47,48], does not permit formal effect-size pooling across the heterogeneous outcome measures used in the reviewed studies. Fourth, consistent with the research design in Section 3.2, this review's evidentiary base is bounded to 2024 and earlier; subsequent developments in generative-AI-mediated labour and platform governance are therefore outside its scope. Finally, as a predominantly literature-synthesis exercise, the paper does not generate new primary quantitative data, and its comparative tables synthesize reported findings rather than re-analysing raw study data.

9. Conclusion

This paper has argued, through an Analytical Reality Exposing synthesis of fifty peer-reviewed and institutional sources, that the stress associated with digital living is best understood as a structurally distributed social cost rather than an aggregate of individual psychological difficulties. Evidence reviewed across adolescent mental health, platform and gig labour, remote work, algorithmic governance, and relational and civic life converges on a common pattern: digital stress intensifies at points of structural vulnerability — precarious employment, marginalized digital access, weak institutional protection — more consistently than it tracks raw technology-use volume. The comparative tables presented here (Tables 1–2) and the PRISMA-ScR-informed scoping summary (Table 3) provide a reusable framework for future researchers seeking to map digital-stress evidence across domains rather than within a single disciplinary silo. Policy and platform-design implications follow directly: extending labour protections to algorithmically managed workers, redesigning institutional digital systems (particularly in healthcare) with workload impact assessment, investing in equitable digital infrastructure, and regulating engagement-maximizing design features identified as structurally stress-generating rather than incidentally so. Future research should prioritize longitudinal and experimental designs capable of establishing causal pathways, broaden the evidentiary base beyond currently overrepresented regional and institutional contexts, and extend the comparative mapping method developed here to post-2024 developments in generative-AI-mediated work and governance as that literature matures.

References

1. Selye H. *The Stress of Life*. New York: McGraw-Hill; 1956.
2. Lazarus RS, Folkman S. *Stress, Appraisal, and Coping*. New York: Springer Publishing; 1984.
3. World Health Organization. *ICD-11 for Mortality and Morbidity Statistics: Gaming Disorder*. Geneva: WHO; 2020.
4. Ahluwalia PS. Digital Dopamine: The Neuropsychology of Social Media Addiction Among Adolescents. *Siddhanta's International Journal of Advanced Research in Arts & Humanities*. 2025:93-109.
5. Przybylski AK, Weinstein N. A large-scale test of the Goldilocks hypothesis: quantifying the relations between digital-screen use and the mental well-being of adolescents. *Psychological Science*. 2017;28(2):204-15.

6. Ahluwalia PS. Doomscrolling and Mental Fatigue: Cognitive Overload in the Era of Crisis Media. *Siddhanta's International Journal of Advanced Research in Arts & Humanities*. 2025:250-70.
7. Elhai JD, Dvorak RD, Levine JC, Hall BJ. Problematic smartphone use: a conceptual overview and systematic review of relations with anxiety and depression psychopathology. *Journal of Affective Disorders*. 2017;207:251-9.
8. Twenge JM. *iGen: Why Today's Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy—and Completely Unprepared for Adulthood*. New York: Atria Books; 2017.
9. Ahluwalia PS, Singh D. The Rise of Digital Minimalism: A New Form of Social Resistance? *Siddhanta's International Journal of Advanced Research in Arts & Humanities*. 2025:218-39.
10. Vahedi Z, Saiphoo A. The association between smartphone use, stress, and anxiety: a meta-analytic review. *Stress and Health*. 2018;34(3):347-58.
11. Ahluwalia PS, Kumar A. Platform Poverty: The Social Consequences of Algorithmic Invisibility on Gig Workers. *Siddhanta's International Journal of Advanced Research in Arts & Humanities*. 2025:240-9.
12. Ahluwalia PS, Singh D. The Gig Economy and the Erosion of Worker Identity: A Sociological Study of Precarious Labor. *Siddhanta's International Journal of Advanced Research in Arts & Humanities*. 2025:38-52.
13. Ahluwalia PS. The Rise of Quiet Quitting: Work Ethic, Alienation, and Resistance in Modern Employment. *Siddhanta's International Journal of Advanced Research in Arts & Humanities*. 2025:92-106.
14. Ahluwalia PS, Kumar A. Remote Work and the Death of the Watercooler: Changing Social Capital in the Post-Office Era. *Siddhanta's International Journal of Advanced Research in Arts & Humanities*. 2025:110-22.
15. Ahluwalia PS. Burnout and Bureaucracy: A Systems-Level Analysis of Mental Health Challenges in Healthcare Professionals. [publication date not specified].
16. Ahluwalia PS, John S, Elliason EK. Embedding Trauma-Informed Care into Healthcare Leadership: A Paradigm Shift in Organizational Culture and Patient Outcomes. *Interdisciplinary Journal of the African Alliance for Research, Advocacy and Innovation*. 2025;1(2).
17. Ahluwalia PS. Crisis Leadership in Healthcare: Organizational Learning from Pandemic Failures. *Siddhanta's International Journal of Advanced Research in Arts & Humanities*. 2025:136-46.
18. Rosen LD, Whaling K, Carrier LM, Cheever NA, Rokkum J. The Media and Technology Usage and Attitudes Scale: an empirical investigation. *Computers in Human Behavior*. 2013;29(6):2501-11.
19. Ahluwalia PS. Invisible Labor in the Smart Home: A Sociological Look at Gender, Automation, and Domesticity. *Siddhanta's International Journal of Advanced Research in Arts & Humanities*. 2025:143-56.
20. Ahluwalia PS, Elliason EK. Post-Pandemic Intimacy: Reconfiguring Relationships and Family Dynamics in a Hybrid World. *Siddhanta's International Journal of Advanced Research in Arts & Humanities*. 2025:69-77.
21. Verduyn P, Ybarra O, Résibois M, Jonides J, Kross E. Do social network sites enhance or undermine subjective well-being? A critical review. *Social Issues and Policy Review*. 2017;11(1):274-302.
22. Ahluwalia PS. Influencer Culture and Neoliberal Identity: A Sociological Critique of Self-Branding on Social Media. *Siddhanta's International Journal of Advanced Research in Arts & Humanities*. 2025:78-91.
23. Ahluwalia PS, Singh D. Memes as Cultural Capital: Humor, Identity, and Resistance in Digital Communities. *Siddhanta's International Journal of Advanced Research in Arts & Humanities*. 2025:115-24.
24. Hunt MG, Marx R, Lipson C, Young J. No more FOMO: limiting social media decreases loneliness and depression. *Journal of Social and Clinical Psychology*. 2018;37(10):751-68.

25. Ahluwalia PS. Algorithmic Bias and Social Stratification: How AI Shapes Inequality in Digital Societies. Siddhanta's International Journal of Advanced Research in Arts & Humanities. 2025:28-37.
26. Ahluwalia PS. Smart Cities and Social Divide: Spatial Justice in the Age of Urban Tech. Siddhanta's International Journal of Advanced Research in Arts & Humanities. 2025:185-202.
27. Ahluwalia PS, Singh D. Urban Gentrification and Digital Displacement: How Tech Hubs Reshape Community Belonging. Siddhanta's International Journal of Advanced Research in Arts & Humanities. 2025:107-14.
28. Ahluwalia PS. The Rise of Techno-Authoritarianism: Digital Surveillance and Sovereignty in the Global South. Siddhanta's International Journal of Advanced Research in Arts & Humanities. 2025:34-54.
29. Odgers CL, Jensen MR. Annual Research Review: Adolescent mental health in the digital age: facts, fears, and future directions. Journal of Child Psychology and Psychiatry. 2020;61(3):336-48.
30. Ahluwalia PS. Digital Health Equity: Evaluating Access and Outcomes in Telemedicine Across Socioeconomic Groups. Siddhanta's International Journal of Advanced Research in Arts & Humanities. 2025:84-92.
31. Ahluwalia PS. Assessing the Impact of Digital Transformation on Hospital Management: A Systematic Review. International Journal of Healthcare and Hospital Management Studies. 2025:1-16.
32. Keles B, McCrae N, Grealish A. A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents. International Journal of Adolescence and Youth. 2020;25(1):79-93.
33. Ahluwalia PS, John S. Disease Pattern/Trends in India: A Comprehensive Analysis of Epidemiological Transitions and Public Health Challenges (2020-2025). Siddhanta's International Journal of Advanced Research in Arts & Humanities. 2025:20-51.
34. Ahluwalia PS. Disease Burden in India: A Comprehensive Analysis. Siddhanta's International Journal of Advanced Research in Arts & Humanities. 2025:179-235.
35. Marciano L, Ostroumova M, Schulz PJ, Camerini AL. Digital media use and adolescents' mental health during the COVID-19 pandemic: a systematic review and meta-analysis. Frontiers in Public Health. 2022;9:793868.
36. World Health Organization. Mental Health and COVID-19: Early Evidence of the Pandemic's Impact. Geneva: WHO; 2022.
37. Ahluwalia PS, Singh D. Climate Anxiety and Youth Activism: A Cross-Cultural Sociological Perspective. Siddhanta's International Journal of Advanced Research in Arts & Humanities. 2025:53-68.
38. Ahluwalia PS. Climate-Induced Migration and Urban Fragility: Mapping New Displacement Frontiers in South Asia. Siddhanta's International Journal of Advanced Research in Arts & Humanities. 2025:71-83.
39. Pew Research Center. Teens, Social Media and Technology 2023. Washington, DC: Pew Research Center; 2023.
40. Ahluwalia PS, Khandey PD. AI as Muse: Redefining Artistic Authorship in the Age of Generative Art. Siddhanta's International Journal of Advanced Research in Arts & Humanities. 2025:15-33.
41. Ahluwalia PS, Khandey PD. From NFT to Artifact: The Changing Value of Art in a Post-Digital Economy. Siddhanta's International Journal of Advanced Research in Arts & Humanities. 2025:147-56.
42. Kumari B. Reimagining Creativity: Literature in the Digital Age. Siddhanta's International Journal of Advanced Research in Arts & Humanities. 2025:25-32.
43. Ahluwalia PS. Cyber-Diplomacy and Conflict: How States Weaponize the Internet in 21st Century Geopolitics. Siddhanta's International Journal of Advanced Research in Arts & Humanities. 2025:157-71.

44. Ahluwalia PS, Singh D. The Weaponization of Nostalgia: National Identity, Pop Culture, and Political Mythmaking. Siddhanta's International Journal of Advanced Research in Arts & Humanities. 2025:123-42.
45. Ahluwalia PS, Elliason EK. Decolonizing Sociology: Indigenous Epistemologies and the Rewriting of Sociological Theory. Siddhanta's International Journal of Advanced Research in Arts & Humanities. 2025:125-36.
46. OECD. Health at a Glance 2023: OECD Indicators. Paris: OECD Publishing; 2023.
47. Ahluwalia PS. Enhancing Systematic Transparency through PRISMA-ScR: A Scoping Review Approach for Emerging Researchers. Siddhanta's International Journal of Advanced Research in Arts & Humanities. 2025:1-27.
48. Ahluwalia PS. Structured Exploration through PRISMA-ScR: A Transparent Method for Mapping Research Landscapes. Siddhanta's International Journal of Advanced Research in Arts & Humanities. 2025:137-67.
49. Ahluwalia PS. Ethical Issues in Social Science Research. Shodh Patra: International Journal of Multidisciplinary Studies. 2024:1-8.
50. Ahluwalia PS. How We Make Plagiarism-Free Content: Theory and Practices. Shodh Prakashan: Journal of Humanities & Social Sciences. 2025:46-53.