IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

How Technology Causes Stress And Affects Employees' Well-Being: A Conceptual Review

Aanchal Gautam[1], Dr Neha Mathur[2]
[1]PhD Research Scholar
[2]Assistant Professor- Selection Grade
Department of Management
IIS (Deemed to be University), Jaipur, India

Abstract
The increasing reliance on digital technologies has transformed contemporary workplaces, enhancing efficiency while also generating new sources of employee stress. This conceptual review examines how technology contributes to workplace stress and affects employees' well-being across organisational contexts. Drawing on peer-reviewed, open-access literature published between 2019 and 2025, the paper synthesises existing research to explain the mechanisms linking technology-related demands to employee well-being outcomes. The review identifies continuous connectivity, information overload, rapid technological change, and system complexity as key contributors to technostress. Technostress is conceptualised as a mediating process through which these demands influence psychological, emotional, social, and occupational well-being, often resulting in emotional exhaustion, reduced job satisfaction, and weakened work–life boundaries. The review also highlights the role of organisational resources, including supportive leadership, digital skills development, and clear technology-use norms, in buffering the negative effects of technostress. The paper contributes a consolidated conceptual framework and outlines directions for future research on sustainable digital work practices.

Keywords
Technostress; Digital Work; Employee Well-Being; Technology-Induced Stress; Workplace Technology; Organizational Health

Introduction

The last decade has seen an unprecedented acceleration in the adoption of information and communication technologies across organisations and sectors. While digital tools have delivered flexibility, efficiency, and new modes of collaboration, they have also created novel demands on workers' attention, skills and time. This phenomenon—commonly discussed under the umbrella terms *technostress*, *digital overload*, or *digital stress*—refers to the strain individuals experience when confronted with the pace, complexity, and constant connectivity that modern technologies impose (Saleem et al., 2021; Hang et al., 2022).

Technostress is multidimensional. Core "technostress creators" identified in recent empirical and conceptual work include techno-overload (too much work via technology), techno-invasion (loss of boundaries between work and personal life), techno-complexity (difficulty mastering tools), techno-insecurity (fear of being replaced by technology) and techno-uncertainty (frequent change/updates) (Tarafdar et al., cited in recent reviews). These technology-related stressors function as intensified work demands that gradually deplete employees' psychological resources, thereby undermining well-being and negatively influencing work outcomes such as engagement, satisfaction, and sustained performance (Saleem et al., 2021; Farmanesh et al., 2025). At the same time, international policy reviews emphasise that digital technologies have **ambiguous** effects on well-being: they enable flexibility and access but also blur

boundaries, increase interruptions and introduce new mental-health risks when poorly managed (OECD, 2024).

Empirical studies published since 2019—across sectors and national contexts—have converged on a key insight: technology per se is neither wholly beneficial nor wholly harmful; its effects on employee well-being depend on the nature of the demands it creates and the organizational supports and individual resources available to cope with those demands (Saleem et al., 2021; Hang et al., 2022; multiple field studies 2020–2024). Evidence collected during and after the COVID-19 shift to remote work illustrates this point particularly clearly: for some workers the shift produced role ambiguity, continuous connectivity and cognitive overload that undermined well-being, whereas for others training, managerial support and adaptive work design mitigated negative effects and even allowed technology to enhance work-life fit (Saleem et al., 2021; conference and field studies 2023).

Given the rapid pace of digital adoption, a focused conceptual review is timely. This paper synthesises open-access research from 2019–2025 to (a) clarify mechanisms through which technology causes stress, (b) map how those mechanisms affect multiple dimensions of employee well-being (psychological, emotional, social and occupational), and (c) identify contextual moderators and practical levers organisations can deploy to reduce harm. The review adopts a job-demands–resources perspective, integrating empirical findings and recent policy analyses to produce a sector-agnostic conceptual framework suitable for HR scholars and practitioners. (OECD, 2024; Farmanesh et al., 2025; Hang et al., 2022).

Literature Review

Recent literature published between 2019 and 2025 consistently recognises technology-induced stress as a growing occupational concern that directly and indirectly influences employees' well-being. Across sectors, scholars agree that the rapid expansion of digital tools has altered the nature of work by intensifying job demands, accelerating work pace, and extending work beyond traditional temporal and spatial boundaries. These changes have redefined how employees experience stress and well-being in contemporary organisations (Saleem et al., 2021; OECD, 2024).

A dominant stream of research conceptualises technostress as a psychological strain arising from employees' inability to cope with technological demands effectively. Studies grounded in occupational stress theory suggest that continuous digital connectivity and frequent system updates increase cognitive load and emotional exhaustion, particularly when employees lack adequate training or autonomy (Hang et al., 2022). Empirical evidence indicates that techno-overload and techno-invasion are among the most influential stressors, as they disrupt work–life balance and reduce opportunities for psychological recovery. Over time, this persistent strain manifests in anxiety, reduced job satisfaction, and diminished overall well-being (Saleem et al., 2021).

The COVID-19 period further intensified scholarly attention to digital stress, as remote and hybrid work models became widespread. Research conducted during this phase highlights how enforced reliance on digital platforms amplified stress for many employees, especially in roles involving constant online communication and performance monitoring. While technology enabled business continuity, it also blurred role boundaries and increased perceived pressure to remain constantly available, thereby negatively affecting emotional and social well-being (OECD, 2024). These findings reinforce the argument that technological stressors function as job demands that consume employees' psychological and emotional resources.

At the same time, recent studies caution against viewing technology as inherently harmful. Conceptual and empirical work suggests that the impact of technology on well-being is contingent on contextual and organisational factors. For instance, supportive leadership, digital competence development, and access to technostress inhibitors—such as user-friendly systems and organisational support—have been shown to buffer the negative effects of technostress on employee well-being (Hang et al., 2022; Farmanesh et al., 2025). This perspective aligns with the job demands–resources framework, which posits that adequate resources can transform potentially stressful demands into manageable or even motivating challenges.

Emerging literature also links technostress to broader well-being outcomes beyond psychological strain. Studies report associations between sustained digital stress and physical fatigue, sleep disturbances, and social withdrawal, indicating that employee well-being must be understood as a multidimensional construct encompassing mental, emotional, social, and occupational dimensions (Farmanesh et al., 2025). Conference-based empirical work further supports these conclusions by demonstrating consistent negative relationships between high technostress levels and perceived quality of work life across diverse occupational groups (Fatin et al., 2023).

Overall, the literature reveals a coherent yet nuanced understanding of how technology causes stress and affects employees' well-being. While digital tools are indispensable in modern organisations, unmanaged technological demands pose significant risks to employee well-being. The reviewed studies collectively highlight the need for integrative conceptual models that explain not only the stress-inducing mechanisms of technology but also the conditions under which its negative effects can be mitigated. This gap provides the foundation for the present conceptual review and framework development.

Methodology

This study employs a **conceptual review methodology** to examine how technology-induced stress influences employees' well-being in contemporary organisational contexts. As the objective of the paper is theory building and synthesis rather than empirical testing, a conceptual approach is appropriate for integrating dispersed findings and advancing a coherent understanding of the phenomenon.

The review is based exclusively on **peer-reviewed, open-access literature published between 2019 and 2025**. Studies were selected through a focused screening process that emphasised three criteria: (i) explicit engagement with workplace technology, digitalisation, or technostress; (ii) relevance to employee well-being outcomes, including psychological, emotional, social, or occupational dimensions; and (iii) applicability across sectors rather than industry-specific contexts. Policy-oriented academic reports were also considered, where they offered rigorous and theory-informed insights into digital work and well-being.

An **interpretive synthesis technique** was used to analyse the selected studies. Rather than summarising findings in isolation, the review examined how different scholars conceptualise technological demands, identify stress mechanisms, and explain well-being outcomes. Patterns, convergences, and conceptual tensions across the literature were identified and systematically organised to support theory integration.

This analytical process enabled the identification of key constructs—technology-related demands, technostress, and employee well-being—as well as the relationships among them. The methodology thus provides the foundation for developing a generalised conceptual framework that reflects current scholarly understanding while remaining adaptable to varied organisational settings.

Conceptual Framework

Drawing from the reviewed literature, this paper proposes a conceptual framework that explains how workplace technology contributes to employee stress and, in turn, influences overall well-being. The framework is grounded in the assumption that technology itself is not inherently detrimental; rather, stress emerges from the way technological demands interact with employees' coping capacities and organisational contexts.

At the first level, **technology-related demands** act as key antecedents. These demands include continuous connectivity, information overload, rapid technological change, increasing system complexity, and heightened expectations for availability and responsiveness. Such demands intensify work pace and cognitive effort, thereby increasing the likelihood of stress when employees perceive a mismatch between these demands and their available resources (Saleem et al., 2021).

These technology-related demands give rise to **technostress**, which functions as a central mediating mechanism within the framework. Technostress reflects employees' psychological and emotional strain arising from difficulties in adapting to digital work requirements. When experienced persistently, technostress depletes mental energy, reduces emotional resilience, and disrupts recovery processes, making employees more vulnerable to negative well-being outcomes (Hang et al., 2022).

The framework further conceptualises **employee well-being** as a multidimensional outcome encompassing psychological well-being (such as anxiety and emotional exhaustion), emotional well-being (including irritability and reduced positive affect), social well-being (such as strained interpersonal relationships), and occupational well-being (including job satisfaction and engagement). Existing research suggests that technostress exerts a direct and adverse influence across these dimensions, particularly in environments characterised by weak boundaries between work and non-work domains (OECD, 2024).

Importantly, the framework incorporates **buffering resources** that shape the strength of these relationships. Organisational factors such as supportive leadership, digital skills training, clear technology-use norms, and accessible technical support are positioned as moderators that can reduce the intensity of technostress and protect employee well-being (Farmanesh et al., 2025). At the individual level, digital competence and adaptive coping strategies further influence how technological demands are experienced.

Overall, the proposed framework integrates technology-related demands, technostress, well-being outcomes, and buffering resources into a coherent explanatory model. It provides a theoretical foundation

for understanding why technology can undermine employee well-being in some contexts while remaining beneficial in others, thereby offering a structured basis for future empirical investigation.

Discussion

The present conceptual review highlights that technology-induced stress has emerged as a structural feature of modern work rather than a temporary or situational challenge. The reviewed literature consistently demonstrates that digital technologies intensify job demands by increasing work pace, cognitive load, and expectations of constant availability. When these demands remain unmanaged, they translate into technostress, which acts as a critical mechanism linking technology use to diminished employee well-being (Saleem et al., 2021; Hang et al., 2022).

One of the key insights emerging from the discussion is that technostress affects employee well-being in **multiple and interconnected ways**. Psychological outcomes such as anxiety, emotional exhaustion, and mental fatigue are frequently reported, but these are often accompanied by emotional strain, reduced work engagement, and strained social interactions. This multidimensional impact reinforces the need to conceptualise employee well-being beyond narrow mental health indicators and to recognise its emotional, social, and occupational dimensions (OECD, 2024).

The discussion further underscores that technostress is **not an inevitable outcome** of digitalisation. Rather, its intensity and consequences are shaped by organisational contexts. Studies show that when employees are provided with adequate digital training, supportive leadership, and clear norms regarding technology use, the negative effects of technology-related demands are significantly reduced (Hang et al., 2022; Farmanesh et al., 2025). This supports the job demands–resources perspective, which suggests that organisational resources can buffer the harmful effects of high job demands.

Another important theme emerging from the literature is the role of blurred work–life boundaries. Continuous connectivity enabled by digital tools has weakened temporal and spatial boundaries between work and personal life, making psychological detachment from work increasingly difficult. Over time, this erosion of boundaries contributes to chronic stress and reduced overall well-being, even in flexible or remote work arrangements (Saleem et al., 2021; OECD, 2024).

Overall, the discussion reveals a clear tension between the efficiency-driven logic of digital transformation and the sustainability of employee well-being. While technology enhances productivity and flexibility, neglecting its psychosocial consequences may undermine long-term organisational performance. This reinforces the need for organisations to integrate well-being considerations into digital strategies rather than treating technostress as an individual coping issue.

Conclusion and Future Recommendations

This conceptual review set out to examine how technology contributes to workplace stress and influences employees' well-being in contemporary organisational settings. Drawing on recent open-access literature, the paper demonstrates that technology-related demands—such as constant connectivity, information overload, and rapid technological change—operate as significant sources of stress when they exceed employees' adaptive capacities. Technostress emerges as a central mechanism through which these demands translate into adverse outcomes for employee well-being.

The review highlights that the consequences of technostress are not limited to psychological strain alone. Rather, sustained exposure to unmanaged technological demands affects emotional stability, social relationships at work, and occupational outcomes such as job satisfaction and engagement. These findings reinforce the importance of viewing employee well-being as a multidimensional construct and recognising technostress as a strategic organisational issue rather than an individual-level problem.

From a practical standpoint, the findings suggest that organisations must adopt a more balanced approach to digital transformation. While technology enhances efficiency and flexibility, its long-term benefits are contingent on the presence of supportive resources. Investment in digital skills development, clear norms governing technology use, supportive leadership practices, and access to technical and emotional support can significantly mitigate the negative effects of technostress. Such measures not only protect employee well-being but also contribute to sustainable organisational performance.

In terms of future research, several directions emerge from this review. First, empirical studies are needed to test the proposed conceptual framework across diverse occupational contexts and cultural settings. Longitudinal research would be particularly valuable in capturing how technostress and well-being evolve as digital systems and work arrangements continue to change. Second, future studies could explore under-researched aspects of digital work, such as algorithmic management, artificial intelligence–based monitoring, and digital ethics, and their implications for employee well-being. Finally, research examining

the interplay between individual coping strategies and organisational interventions would provide deeper insights into how technostress can be effectively managed in practice.

Overall, this paper contributes to the growing body of knowledge on digital work and employee well-being by offering an integrated and contemporary conceptual perspective. It underscores the need for organisations and researchers alike to address technostress proactively in order to foster healthier, more sustainable digital workplaces.

References

1. Farmanesh, P., et al. (2025). Uprooting Technostress: Digital Leadership Empowering Employee Well-Being in the Era of Industry 4.0. *Sustainability*, *17*(19), 8868.
2. Organisation for Economic Co-operation and Development. (2024). *The impact of digital technologies on well-being*. OECD Publishing.
3. Fatin, M., Meghana, R., & Apoorva, N. (2023). Exploring the impact of technostress on well-being: An empirical study. *Proceedings of the International Conference on HR for Organisational Sustainability*.
4. Hang, Y., Hussain, G., Amin, A., & Abdullah, M. I. (2022). The moderating effects of technostress inhibitors on techno-stressors and employees' well-being. *Frontiers in Psychology, 12*, 821446.
5. Saleem, F., Malik, M. I., Qureshi, S. S., Farid, M. F., & Qamar, S. (2021). Technostress and employee performance nexus during COVID-19: Training and creative self-efficacy as moderators. *Frontiers in Psychology, 12*, 595119.