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Impact of Generative AI on Stress Management and the Maintenance of Work-Life Balance: A Paradoxical Analysis

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Abstract: ***The rapid integration of Generative Artificial Intelligence (GenAI) into organizational processes presents a paradoxical challenge to employee well-being, simultaneously acting as a resource for stress reduction and a source of new psychological demands. Empirically and conceptually, GenAI reduces workload stress by automating repetitive and time-consuming tasks, facilitating better time management and offering 24/7 mental health support via wellness applications and chatbots.***

Conversely, its widespread use introduces significant stressors, including job insecurity and skill obsolescence anxiety (technostress), increased surveillance pressures, and the erosion of the work-family boundary. The paper concludes that the net impact on WLB hinges on responsible, thoughtful GenAI implementation strategies that prioritize employee autonomy, ethical data governance, and organizational support systems. *1 2 3 4 5 6*

The swift incorporation of Generative Artificial Intelligence (GenAI) across corporate environments introduces a significant contradiction to staff welfare, functioning as both an effective method for alleviating stress and a generator of novel mental burdens.

This analysis, grounded in established theoretical models, explores the two-sided effect of adopting GenAI on an individual's ability to manage stress and sustain their Work-Life Balance (WLB). Fundamentally, GenAI diminishes pressure related to workload by mechanizing routine and labour-intensive activities, thereby enabling superior organization of time and continuous mental health assistance through dedicated wellness tools and virtual assistants. Conversely, the broad deployment of these technologies initiates considerable stress factors, such as the anxiety stemming from job instability and the fear of skills becoming irrelevant (technostress), elevated oversight demands, and the blurring of professional and personal life boundaries. The ultimate finding of this research is that the overall consequence for WLB is dependent upon judicious and ethical GenAI deployment tactics that place importance on employee independence, transparent data handling, and robust organizational support structures. *2 3 4 10*

Keywords: Generative AI, Work-Life Balance, Job Stress, Technostress, Job Demands-Resources Model, Employee Well-being, AI Literacy, Digital Ethics

I. INTRODUCTION

The contemporary workplace is shaped by rapid technological advancement, as Generative Artificial Intelligence (GenAI) toolsparticularly large language models (LLMs)have become widespread virtual collaborators for employees in nearly every industry. GenAI boosts efficiency, fuels innovation, and improves decision-making by quickly analyzing data and generating content that closely resembles human output.

Nevertheless, this major technological change has fundamentally altered the nature of work, how employees experience their jobs, and the fragile boundaries between professional and personal life. 6 7 5

Employee stress and the difficulty in sustaining a healthy Work-Life Balance are major issues for modern organizations, resulting in lower productivity and higher rates of burnout. Thus, the integration of AI technologies involves a complex and continually changing interaction with these factors. Although AI is expected to automate administrative tasks and liberate cognitive resources, in practice it frequently imposes new psychological burdens. This research paper investigates this duality, delving into the contradictory impact of GenAI on stress management and work-life balance for today's employees. 1 5 9 10

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Figure 1

This duality can be conceptualized through the lens of the **Job Demands-Resources (JD-R) Model**, where GenAI functions as a new form of technological job resource designed to counter excessive job demands. When successfully integrated, GenAI tools, through their efficiency and capability to generate near-instant drafts, reports, and data syntheses, serve to *conserve* an employee's cognitive and temporal resources. This resource conservation directly translates into a reduction in quantitative workload and qualitative cognitive load, thereby mitigating chronic stress and preventing emotional exhaustion, which are key precursors to burnout. By managing the minutiae of administrative work, GenAI allows employees to redirect their focus toward high-value, strategic, or creative tasks, optimizing their flow state and enhancing job satisfaction. However, the proliferation of GenAI simultaneously creates an entirely new category of job demands. This is primarily manifested as **technostress**, rooted in the anxiety of job displacement, the pressure of continuous upskilling (technological skill obsolescence), and the necessity of validating and correcting AI-generated output. Moreover, GenAI's capacity for constant, immediate output contributes to the pervasive "always-on" work culture. This accessibility further erodes the psychological and physical boundaries between work and personal life, transforming the home environment into an extension of the office. Consequently, while the work *itself* may be more efficient, the persistent psychological availability demanded by a GenAI-enabled environment undermines the very Work-Life Balance it was intended to protect, requiring a nuanced investigation into these competing forces. [7] [5] [8] [9] [10]

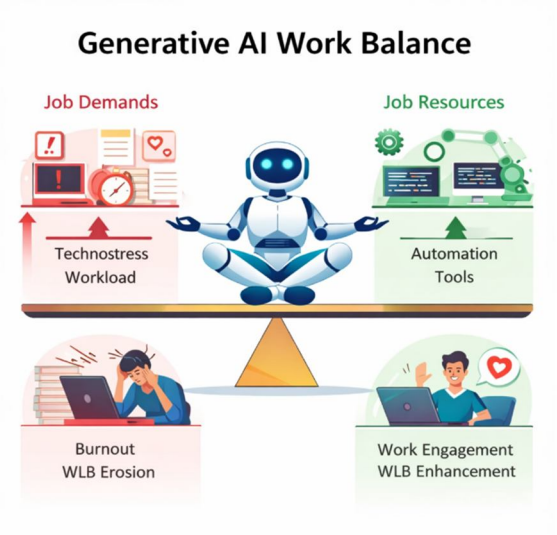


Figure 2

II. THEORETICAL FRAMEWORK

This analysis utilizes the Job Demands-Resources (JD-R) Model as its primary lens, a framework frequently employed in the literature to explain the relationship between AI and employee well-being. 8 5

1) Job Demands refer to physical, psychological, social or organizational aspects of the job that require sustained physical and/or mental effort and are, therefore, associated with physiological and psychological costs (e.g., exhaustion, stress). In the context of AI, these include Technostress and Job Insecurity. 5 6
2) Job Resources refer to physical, psychological, social, or organizational aspects that are functional in achieving work goals, reducing job demands, and stimulating personal growth. AI, through automation and efficiency tools, can serve as a potent Technological Job Resource. 8 3

The core thesis is that the final impact of GenAI on WLB and stress is determined by the dynamic interplay and perceived balance between these introduced demands and resources. 5

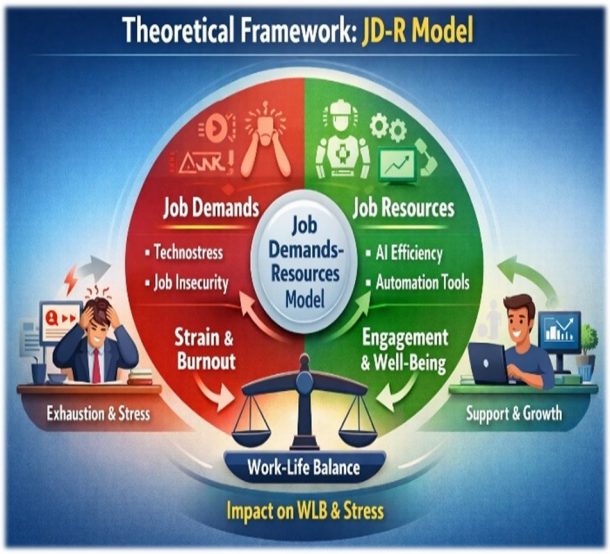


Figure 3

III. LITERATURE REVIEW: THE DUAL PATHWAY OF GENAI

The existing body of literature reveals a pronounced duality in AI's effect on stress management and WLB.

A. GenAI as a Stress Reducer and WLB Enabler (AI as a Resource)

GenAI primarily alleviates stress by eliminating or simplifying routine, low-value tasks, thereby minimizing cognitive overload and reducing stress stemming from heavy workloads. 2 3

- Automation and Efficiency: AI-driven automation significantly reduces workload-related stress by automating repetitive and time-consuming tasks. Employees who use AI at a high level report gaining back valuable time, allowing them to focus on tasks requiring human creativity and strategic thinking. 1 3 4 2 7
- Enhanced Time Management and Flexibility: AI scheduling systems, project management platforms, and LLMs assist employees in managing deadlines and complex workflows more efficiently. This improved efficiency and support for flexible scheduling and remote collaboration strengthen overall work-life integration and reduce the likelihood of working overtime, enabling protected personal or family time. 3 1
- Mental Health Support: AI directly contributes to well-being through health-tracking and wellness applications that offer guided meditation, stress-monitoring suggestions, and personalized well-being tips. Furthermore, AI-powered chatbots (e.g., Wysa, Woebot) provide immediate, 24/7 mental health support, offering cognitive behavioral therapy (CBT)-based conversations that are often personalized and stigma-free. 2 3

B. GenAI as a Source of Stress and WLB Erosion (AI as a Demand)

Despite the advantages, the deployment of AI technologies introduces new forms of psychological pressure, categorized as job demands that can exacerbate stress and undermine WLB. 5

- Job Insecurity and Obsolescence Anxiety: This is arguably the most significant psychological challenge. Surveys indicate that a substantial percentage of employees experience moderate to high anxiety that their professional skills may become obsolete or that their job may be displaced by GenAI technology. This "automation anxiety" negatively predicts an employee's affective well-being. 6
- Algorithmic Management and Surveillance: Excessive reliance on AI surveillance (e.g., monitoring communication, workload trends) heightens stress levels by fostering feelings of constant monitoring and reduced autonomy. This potential for algorithmic management pressures contributes to the erosion of the work-family boundary, increasing stress. 2 3 5
- Deskilling and Cognitive Strain: Over-reliance on AI for decision-making can lead to deskilling, causing anxiety when AI systems are unavailable or malfunction, particularly in high-stakes environments. Furthermore, the introduction of AI can shift cognitive demands, leaving workers to handle only the most complex cases. The constant need to check, correct, or refine "garbage" output from GenAI tools can lead to new forms of cognitive overload and "review stress". 9

IV. DISCUSSION AND IMPLICATIONS FOR MANAGEMENT

The net effect of GenAI on an individual's WLB and stress management is not inherent to the technology itself but is highly contingent upon the moderating factors of implementation, organizational culture, and individual agency. 3 5

1) Moderating Factors: Critical mediating factors identified in the literature include:
   - Trust in AI: The employee's confidence in the system's fairness and accuracy. 5
   - Job Autonomy: The degree of control employees retain over their work and the use of AI tools. 5
   - AI Literacy: An employee's proficiency and strategic understanding of GenAI's capabilities and limitations (a key concern echoing the user's previously submitted paper title, *"Reskilling THE Hr Function: Assessing THE Need FOR Ai Literacy..."*). 7 10

2) Strategic Implementation: For organizations to leverage AI as a resource without amplifying demands, implementation must be accompanied by proactive HR practices. This includes mandatory training to build AI literacy, establishing transparent data governance policies to protect employee privacy, and framing AI adoption not as displacement but as a tool for "empowerment" and achieving "deep work". 5 3 7



Figure 4

V. CONCLUSION

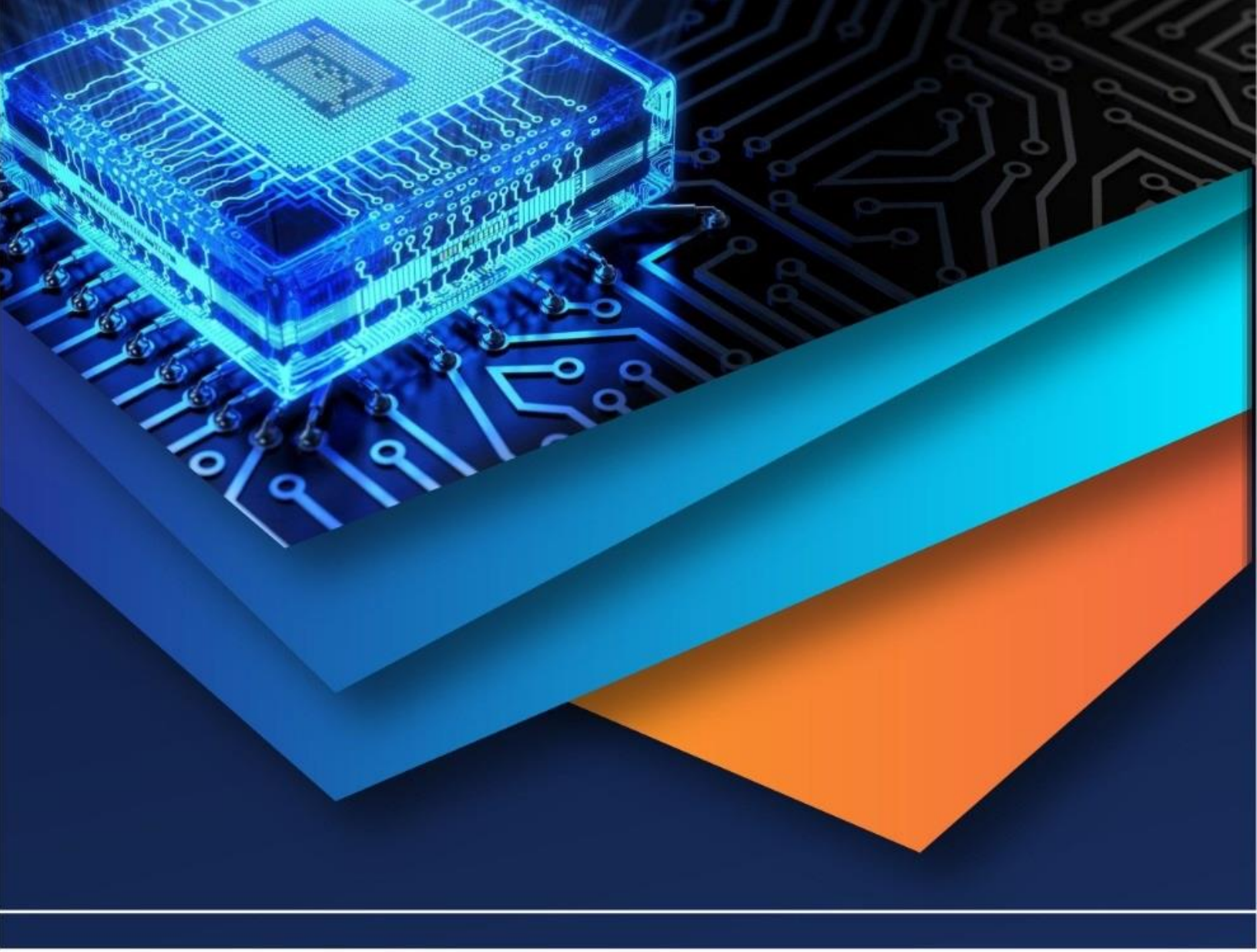
Generative AI fundamentally reshapes the terrain of stress and work-life balance. By automating routine tasks and delivering direct wellness support, it offers essential tools to handle workload stress and improve personal time. Yet, the concurrent rise of technostress, job insecurity, and surveillance pressures means that AI embodies a complex paradox. Future research should prioritize longitudinal studies and empirical investigations that quantify the

"Productivity - anxiety paradox" examining the trade-off between time saved and mental energy expended due to new demands. In the end, GenAI's beneficial impact on work-life balance will become evident only when companies embrace a balanced, ethical, and people-focused strategy that boosts efficiency without compromising the rights, trust or well-being of human employees.

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