

The Impact of Digital Technologies on Work-Life Balance – A Survey of Recent Research

Dr. Sushmaa Mohanakrishnan¹, Dr. F. Wahidha Begum², Dr. S. Prasanth³

Independent Professor in Management¹, Assistant Professor², Assistant Professor³

Jamal Institute of Management²³

Jamal Mohamed College, Tiruchirapalli²³

¹ vijaysushmaa@gmail.com, ² wb@jmc.edu, ³ drsp@jmc.edu

Abstract: Digital technologies have significantly transformed the modern working conditions and altered the way employees approach their professional tasks and the way they approach their personal life. The paper assesses the definition of work-life balance in the digital age and the connections among constant connectivity, teleworking, digital communication devices, and employee health and productivity. It elaborates on why it is necessary to have boundaries between personal and professional life and the benefits of living a balanced life including being more motivated, having less stress, being more productive, and job satisfaction. The paper analyses both the positive and negative impact of digital technologies, such as flexibility, improved collaboration, automation, and access to learning, and digital stress, digital overload, boundary blurred and social isolation. Special attention is given to such models of work as remote and hybrid work, which emerged considerably following the COVID-19 pandemic and may be considered a sign of both positive and negative effects on work-life balance. Additionally, the paper proposes organizational solutions to the issues that technology has caused such as job sharing, flexible working conditions, employee assistance, and personal coping strategies. It concludes that in the digital world, sustainable work-life balance will only be achieved with the concerted efforts of both the employee and the organization.

Keywords: Work-Life Balance, Digital Technologies, Remote and Hybrid Work, Technostress, Employee Well-Being, and Flexible Work Arrangements.

I. INTRODUCTION

Digital transformation is fast changing contemporary organizations and transforming how work is conducted. The goal is to increase productivity, creativity, and competitiveness by the strategic integration of digital technology into organizational structures, procedures, and the dynamics of the workforce [1]. Digital technologies are widely used by organizations to redesign their business model, improve operations and design new products and services, so that they will be able to respond to the changes in the market and capitalize on technological possibilities.

The development of digital technologies, including AI[2], automation[3], robotics[4], cloud computing[5], and the IoT [6] has played a major role in the organization and the working of the workplace [7]. All these technologies are commonly thought of as the Fourth Industrial Revolution or Industry 4.0 because these technologies are changing the working environment and redefining job roles in most industries[8]. Even as digital technologies enhance efficiency, communication and collaboration, they also create new issues with regard to job security, workforce adaptation, and technological disruption [9]. With organizations becoming more digital, employees are forced to adjust to the emergence of new work practices and acquire new skills to keep up with the fast-shifting workplaces. Meanwhile, the incorporation of the digital technologies has melted down the lines between work and personal life [10][11]. The constant connectivity of smartphones, digital platforms and remote working devices has made work available outside of regular office hours, and employees are finding it hard to find time to unwind off work related matters. As a result, both individuals and businesses now place a high priority on preserving a healthy Work-Life Balance.



The capacity of individuals to manage the demands of their professional responsibilities while maintaining control over their personal, familial, and social lives is known as work-life balance [12]. Companies are becoming aware of how important it is to promote Work-Life Balance in order to boost employee satisfaction, productivity, and overall company performance [13][14]. Management of human resource is thus instrumental in formulation of policies and strategies that help in promoting the welfare of the employees as well as organizational effectiveness.

A. Structure of the paper

The rest of this paper is structured as follows: Section II covers the significance, challenges, and role of Digital Technologies in relation to Work-Life Balance. The advantages and disadvantages of Digital Technology, remote and Hybrid Work Arrangements, and technostress are examined in Section III. Organisational ideas to preserve Work Life Balance in the digital era are presented in Section IV. A literature review is presented in Sections V and VI, with a conclusion and recommendations for further studies following.

II. THE CONCEPT OF DIGITAL TECHNOLOGIES ON WORK-LIFE BALANCE

The ability to organize and balance one's professional and personal life in connection to digital technologies in a way that promotes health, productivity, and the absence of negative stress is what we mean when we talk about WorkLifeBalance in the digital environment.

A. Importance of Work-Life Balance in a Digital Environment

The introduction of WorkLifeBalance in the digital age is necessary to guarantee the productivity, JobSatisfaction, and well-being of workers. Balanced digital work culture can help in reducing stress, preventing burnout, and ensuring that professional and personal life is the sustainable management. The idea of WorkLifeBalance has recently come to the fore in discourse due to the difficulty of balancing one's personal and professional obligations. Maintaining a positive link between a person's personal and professional lives is essential to their long-term productivity and personal well-being[15]. Overload and long working stress may have adverse physical and psychological results, causing such issues like burnout, anxiety, and job dissatisfaction. Through devoting time to rest, leisure, and socialization, one will be able to achieve emotional stability, as well as increase the quality of life.

Organizational wise WorkLifeBalance will be promoted to ensure that the working environment is positive and productive. Companies that can accommodate the flexible working conditions and well-being of employees are in a better position to attract and retain the skilled employees. When employees have a balanced lifestyle, they are likely to be more satisfied with their job, engaged, and more productive. In the digital age, however, it is becoming increasingly difficult to maintain a decent balance between work and life, as people are always connected via digital devices and remote-work technologies. Thus, clear work boundaries, flexible work policy and culture of well-being of employees should be employed by both individuals and organizations to have sustainable work-life balance.

The advantages of work-life balance are as follows:

- **Enhanced Employee Motivation:** Employee motivation is enhanced, which in turn results in increased productivity and job performance, when a balance is established between one's personal and professional lives.
- **Stress Reduction:** Work-life balance reduces stress and enhances mental health by enabling people to set aside time for recreational activities with loved ones.
- **Increased Productivity:** In contrast to overworked and burned-out workers, companies gain from staff who are revitalized and energetic as a consequence of a balanced lifestyle, leading to maximum output.
- **Maintenance of Healthy Lifestyles:** The ability to strike a good work-life balance is associated with increased health and vitality because it makes it easier to stick to healthy lifestyle habits like eating well and exercising regularly.
- **Business Growth:** Highly motivated workers who maintain a good WorkLifeBalance express greater JobSatisfaction and a greater commitment to the company's success.



B. Key Technologies Shaping Work Practices

The digital technologies usually used are information and communication technology (ICT), collaboration technologies, project management technologies, virtual reality or VR training, and intelligent performance analysis technologies [16]. These systems and tools enable the enhancement of organizations' different processes, particularly the human resource management process. It is essential to implement new management practices as remote labor becomes more commonplace in the field [17]. Here, it has been observed that this invention increases the geographical and cultural variety of the working team and boosts productivity, which aids the company in properly managing the scattered workers and subordinates.

1) Artificial Intelligence (AI):

The AI technologies allow the automation of routine activities, smart decision-making, predictive analytics, and monitoring of performance[18]. AI reduces the number of people who have to work manually and makes the work more efficient so that employees can spend their time on more valuable tasks and assist with managing the organization with data.

2) Digital Platforms and Cloud computing:

The cloud-based systems allow a secure real-time access to data, applications, and organization resources anywhere. Remote collaboration, sharing of documents, workflow, and business continuity are supported on digital platforms and are therefore critical to flexible work environments[19].

3) Mobile Phones and Telecommuting Gadgets:

Mobile applications, smartphones, and tablets enable the employees to be in touch with work at any place and time[20][21]. Communication can be fast, tasks can be managed, and responsiveness can be maintained with the help of E-mail, IM and mobile productivity tools; this is why all activities can be run remotely[22].

4) Collaboration Platforms

The communication tools such as Slack, Microsoft Teams and Zoom are necessary in managing a remote workforce. These applications support sharing of documents, conversation and conducting conferences. Consequently, members of a specific team can collaborate effectively from either near or far locations [23][24]. Despite the geographical distance between the teams, collaboration platforms may enhance communication and cooperation. These also include features that make tasks simpler to do, such video conferencing, channels, and connection with other applications.

In addition to the aforementioned factors, it should be noted that the use of collaboration platforms in an organization may foster a sense of unity and teamwork among remote workers. These platforms, which help the team operate well and boost morale, include games and virtual breaks. An essential aspect that may pose a challenge for a large organization with policies permitting employees to work from home is that the more employees experience this sentiment, the more productive that are and the less likely they are to experience boredom and loneliness.

C. Difference Between Personal Life and Professional Life in Work-Life Balance

Maintaining equilibrium between one's personal and professional lives is essential for attaining complete contentment and well-being. Although they are interconnected, the two aspects of existence correspond to distinct priorities, activities, and responsibilities. Understanding the differences between personal and professional life is essential for effective work-life balance management. Fig. 1 illustrates the following major distinctions:



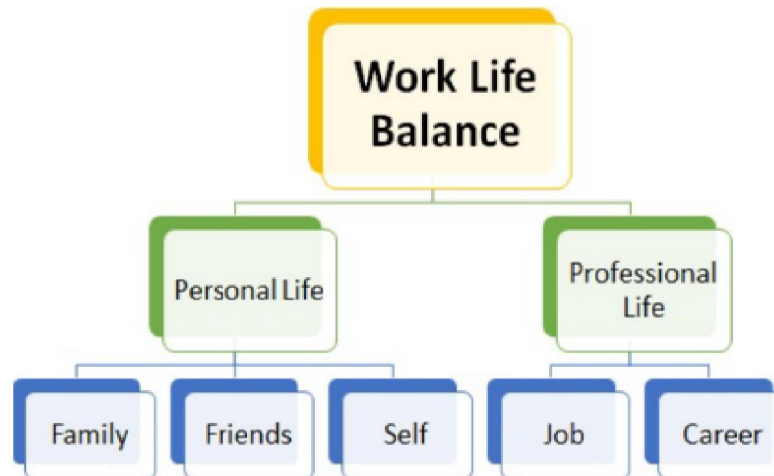


Fig. 1. Work Life Balance

Table 1 identifies the most prominent differences between personal and professional life across activities, objectives, tasks, ties, emotional health, and adaptability. A good work-life balance is achieved when one is able to manage their personal and professional responsibilities while being cognizant of these distinctions.

TABLE I: DIFFERENCE BETWEEN PERSONAL LIFE AND PROFESSIONAL LIFE IN WORK-LIFE BALANCE

Aspect	Personal Life	Professional Life
Nature of Activities	PersonalLife encompasses activities that are not related to work, such as engaging in pursuits, unwinding, and practicing self-care, as well as spending time with family and friends.	Professional life includes work-related activities such as AttendingMeetings, CompletingTasks, MeetingDeadlines, and collaborating with colleagues.
Purpose and Goals	The main priorities are self-development, relationships, health, and personal fulfillment. Individuals often set goals related to personal growth and well-being.	The focus is on achieving career objectives such as skill development, career advancement, ProfessionalRecognition, and MeetingOrganizational targets.
Boundaries and Expectations	Maintaining boundaries that safeguard personal time, such as weekends, vacations, and evenings, enables individuals to concentrate on personal interests and relaxation.	Professional life requires fulfilling job responsibilities, adhering to workplace rules, responding to work communications, and meeting deadlines within designated work hours.
Impact on Relationships	Personal relationships with family members, friends, and loved ones are central. Maintaining these relationships requires time, emotional support, and communication.	Clients, supervisors, and colleagues all participate in professional relationships. Effective collaboration, networking, and professional communication are important for workplace success.
Emotional Well-being	Personal life contributes to emotional health by providing opportunities for relaxation, enjoyment, and social support, which enhance overall happiness and life satisfaction.	Workplace stress, job satisfaction, workload, and professional accomplishments may all have an impact on emotional well-being.
Flexibility and Control	Personal time, activities, and priorities are generally managed with greater autonomy and flexibility by individuals, in accordance with their preferences.	Professional life often follows organizational policies, fixed schedules, and job responsibilities, giving employees comparatively less control over time and workload.



It is imperative to appreciate and recognize the differences between personal and professional life as a way of attaining WorkLifeBalance. Establishing boundaries, prioritizing tasks, and limiting time may help individuals efficiently manage work and life issues while also increasing pleasure and wellbeing in professional and personal sectors.

D. Balancing Benefits and Challenges: The Role of Technology in Work-Life Balance

There are advantages and disadvantages for those who are having trouble balancing their personal and professional lives as a result of technology's dual impact on Work-Life Balance.

1) Advantages of Technology in Work-Life Balance

- **Flexibility:** Telecommuting, flexible work schedules, and remote working options are just a few of the ways that technology has given people more options to manage their personal and professional lives.
- **Communication:** Workers are able to remain linked to their supervisors and coworkers despite their geographical locations because to communication technologies that facilitate collaboration and communication, such as advanced email, instant messaging, and video conferencing.
- **Time Management:** A better Work-Life Balance is possible with the help of Productivity Tools, Digital Calendars, and Time Tracking software.
- **Access to Information:** Technology enhances resources and expertise, and this makes the employees work more effectively and productively [25]. This reduces the need for long workdays and enhances Work-Life Balance.
- **Work-Life Integration:** People may more easily combine work-related and personal activities due to technology, which blurs the boundaries between personal and professional life and gives them more freedom to manage both.

2) Challenges of Technology in Work-Life Balance

- **Constant Connectivity:** There is a risk that people's private and professional lives may become more indistinguishable due to the "always-on" culture that has emerged as a result of the widespread availability of electronic communication and data storage equipment.
- **Work Overload:** The ease with which job-related communications and tasks may be accessed via technology raises concerns about work overload, burnout, stress, and the difficulty in maintaining a Work-Life Balance.
- **Boundary Management:** It is becoming more difficult for people to create distinct boundaries and allocate time for leisure, relaxation, and family responsibilities as a result of the increasing tech-enabled merging of work and personal life.
- **Distraction:** There is a correlation between the prevalence of digital distractions like social media, emails, and alerts and a decline in productivity and an imbalance between work and personal life. Finding a healthy WorkLifeBalance is made more difficult by an excessive reliance on technology for work-related activities and communication, which increases the risk of addiction and dependency.

Although technology offers a number of advantages to the work- life balance, there are also immense challenges that need to be overcome. Individuals may benefit from technology while limiting its negative effects on WorkLifeBalance by using it intelligently, establishing limits, and developing good digital habits.

III. IMPACTS OF DIGITAL TECHNOLOGIES ON WORK-LIFE BALANCE

Digital technologies impact WorkLifeBalance in both a positive way, including flexibility, efficiency, and the opportunity to work remotely and a negative one, including technostress, boundary blurring, and social isolation.

A. Positive Impacts of Digital Technologies on Work-Life Balance

The positive impacts of DigitalTechnologies on WorkLifeBalance show how technology improves flexibility, communication, and efficiency while also creating challenges such as boundary blurring, digital overload, and social isolation.



1) Flexibility in Work Arrangements:

Employees may work from home or from any place other than the office due to technology. Working hours and telecommuting are part of the flexible working arrangements, where employees are able to manage their working schedules. There is a significant improvement in the WorkLifeBalance as a consequence of people's increased agency over their professional and personal duties.

2) Improved Communication and Collaboration:

Video conferencing, email, and instant messaging are modern tools that help different teams to work effectively in a geographically dispersed model[26]. Employees can stay in touch with managers and fellow employees anywhere in the world without necessarily travelling long distances or holding in-person meetings, without losing their ability to be productive.

3) Automation and Efficiency:

Automation technologies make repetitive and time-consuming processes easier and more comfortable, as they require less effort to finish routine operations. Employees will be in a position to achieve their duties within a shorter period of time thus enabling them to spend more time on personal task and family and leisure.

4) Access to Digital Resources and Learning Opportunities:

Technology gives the employees easy accessibility to online information, online platforms, and professional development opportunities. The knowledge-sharing platforms, webinars, and online training programs also help online workers to develop their skills and learn more without interfering with their personal schedules, and it helps the employees grow their careers while preserving the balance between work and the life.

B. Negative Impacts of Digital Technology on Work-LifeBalance

The blurring of work and personal life borders, the proliferation of DigitalTechnologies, the rise in work-related stress, and the decline in social connection are some of the good and bad features of digital technologies.

1) Boundary Blurring:

Always being connected and having easy access to work-related emails, messages as well as applications will blur the line between professional and personal life. Employees cannot obviously stop being connected to the job and it can cause stress, burnout and general bad health.

2) Digital Overload:

The rising trend of the use of digital gadgets and the stream of information can pose a feeling of overload[27]. Never-ending email, notifications, and virtual meetings can adapt in such a way that people cannot prioritize their work and become fatigued, less productive, and mentally exhausted.

3) Increased Expectations and Pressure:

High technologies enable organisations to keep a closer check on the performance of employees, which can put more pressure on them to deliver to tight deadlines and other performance objectives. Staff members might be required to be always present and attentive, and this leaves them stressed and guilty whenever they cannot be able to live up to this.

4) Social Isolation and Reduced Personal Interaction:

Although digital tools enable remote work and virtual collaboration, excessive reliance on technology can reduce face-to-face interactions among employees. Limited personal communication may lead to feelings of isolation, weaker workplace relationships, and decreased emotional well-being.

C. Role of Remote Work and Hybrid Work

Remote and hybrid work models are at the center of modern workforce management, in particular due to the COVID-19 pandemic, which increased their use at a faster pace around the globe [28][29]. With the help of digital technologies, such arrangements can enable employees to work at home either entirely or as a mix of working remotely and in the office, changing the traditional forms and arrangements of organizations. The remote working is capable of enhancing productivity, JobSatisfaction, and WorkLifeBalance due to the augmented flexibility, autonomy and the reduction of commuting time. However, social isolation problems, insufficient work-home barriers and teamwork difficulties may also arise [30]. Hybrid models may be considered as a compromise, and they have the advantages of both remote



flexibility and the advantages of face-to-face interaction. These models cannot be successful without good digital coverage, the favorable corporate culture, and the multitasking leadership capable of dealing with virtual team.

The hybrid work style also has a significant effect on the WorkLifeBalance by providing employees with the increased autonomy of their work settings and working hours. This adaptability has a positive effect on their emotional and physical well-being by allowing them to better balance their work and personal life [31]. As an illustration, an IT professional can dedicate office days to collective work and team-building, whereas remote working days are dedicated to other personal tasks or family matters. Also, the differences that may occur between the employees following discrepancies in the ability to access favorable working conditions in remote working will influence the ability of such employees to balance their work and life.

Organizations need to deal with these challenges. Organisations may facilitate workers' ability to compartmentalise their work and personal lives by outlining explicit regulations, such as mandatory breaks and working hours. The effectiveness of the hybrid work model to establish a WorkLifeBalance can be enhanced through provision of resources like ergonomics equipment, mental health support, and time management programs [32]. The hybrid work style is a paradigm shift on addressing the WorkLifeBalance in the ITsector. The more flexibility and autonomy employees have, the better they can combine their work and personal goals. However, a hybrid system would require employees and organizations to work together in order to attain an optimum WorkLifeBalance. The key to maximizing the benefits of this type of work and reducing its negative impact is to prioritize employee well-being, develop strong policies, and thoroughly communicate. It is probable that the hybrid work model will continue to be a fundamental component of organizational strategies that are designed to improve employee satisfaction and productivity as the IT industry continues to develop.

D. Technostress and Impacts on Work-Life Balance

The stress that individuals experience as an outcomes of using digital technologies excessively at work is known as technostress. There are a number of types of technostress that may impact workers and their work-life balance. Among the factors is techno-invasion, which arises when workers believe that work requirements are beyond the normal working hours due to the constant connection of employees via emails, messaging applications, and cell phones[33] . This tends to complicate the process of employees being able to disengage from work and concentrate on personal life. The next significant variable is techno-overload, which occurs when workers have to use technology to a large extent and perform large amounts of digital work in short periods of time[34] . The constant experience with digital systems can lead to work pressure and a lack of time to deal with personal life. On the same note, techno-complexity arises when new technologies are challenging to comprehend or to use, thus leaving the employees frustrated or incompetent in carrying out their duties.

Moreover, there is the techno-insecurity in which the employees are unsure of their capabilities in technology relative to others, which results in apprehension of being displaced or even denied employment[35]. Another cause of techno-uncertainty is a large number of technological updates and changes in the system that confuse and force employees to master new tools and platforms every day. Moreover, large screen time use via smart phones, laptops, tablets and other electronic gadgets enhances fatigue, eye stress as well as mental fatigue[36]. The long-term application of digital technologies, as well as the use of multiple digital platforms is associated with the negative effect on concentration, productivity, and well-being.

Table II displays the relationship between Work-Life Balance and productivity, as well as the impact of stress, Job Satisfaction, and flexible work arrangements on workers' overall performance.

TABLE II: WORK-LIFE BALANCE AND EMPLOYEE PRODUCTIVITY

Category	Sub-Category	Number of Employees	Remarks
Work-Life Balance	Employees with Good Work-Life Balance	120	A healthy WorkLifeBalance is reported by 60% of employees.
Levels	Employees Struggling	80	40% of employees find it difficult to manage their



	with Work-Life Balance		personal and professional obligations.
Impact on Productivity	High Productivity (Good Work-Life Balance)	140	Higher productivity is reported by 70% of workers who have a healthy WorkLifeBalance.
	Low Productivity (Poor Work-Life Balance)	60	Low productivity is reported by 30% of employees who struggle with work-life balance.
Factors Influencing Work-Life Balance	Flexible Work Hours and Remote Work	130	65% of employees believe that remote work and flexible scheduling are beneficial for preserving work-life balance.
	Lack of Support and Long Working Hours	110	Long work hours and a lack of assistance are cited by 55% of employees as obstacles to work-life balance.
Job Satisfaction	High Job Satisfaction (Good Work-Life Balance)	150	Job satisfaction is better for 75% of employees who have a healthy WorkLifeBalance.
	Low Job Satisfaction (Poor Work-Life Balance)	50	Poor WorkLifeBalance is associated with reduced job satisfaction for 25% of employees.
Stress Levels	High Stress (Poor Work-Life Balance)	90	Stress levels are greater for 45% of employees who have a poor WorkLifeBalance.
	Low Stress (Good Work-Life Balance)	110	Stress levels are lower for 55% of employees who have a healthy WorkLifeBalance.

IV. ORGANIZATIONAL STRATEGIES TO MAINTAIN WORK-LIFE BALANCE IN THE DIGITAL AGE

Flexible work arrangements, job sharing, employee support programs, and effective time management techniques are just a few examples of organizational and personal strategies for maintaining Work-Life Balance in the digital era. These strategies can be used to minimize work stress, increase the welfare of employees, as well as boost productivity. Given the widespread connectivity, high level of effort, and quick adoption of Digital Technologies in the workplace, Work-Life Balance has become a significant challenge in the digital age[37]. As a result, companies in several nations, including the United States, Canada, New Zealand, and Singapore, have created various Work-Life Balance initiatives to support their workers' well-being and productivity. Such programs are usually aimed at accommodating work arrangements, conducive work policies, and employee assistance services that enable people to combine their work and personal life tasks better.

A. Flexible Work Arrangements

Flexible work systems enable the employees to set their working hours, places, and procedures in certain organizational conditions. Some of these arrangements are the flextime, telecommuting, flexible workplaces, annualized working hours, and part-time working. Organizations can help employees to effectively juggle between family commitments and personal commitments and remain productive by offering flexibility in the working conditions. These systems greatly minimize work-family conflict and achieve a better Work-Life Balance.

B. Job Sharing

Job sharing is another successful organizational method that may be applied, in which two or more individuals share the tasks of a single job position [38]. This structure enables the workers to share the tasks and working hours based on agreed schedules. Job sharing enables work pressure to be lessened, employees that need flexible working schedules like working parents are supported and work can be better distributed. Consequently, employees have lower stress levels and job satisfaction.



C. Employee Assistance Programs

Employee Assistance Programs (EAPs) are professional support services, offered to employees that have personal, psychological, or family issues. Such programs usually encompass counseling services, mental health services, and childcare/eldercare responsibilities. EAPs contribute to the establishment of a favorable working environment, increased morale and overall productivity at workplace by addressing the personal issues and health of employees.

D. Individual Strategies for Maintaining Work-Life Balance

Employees should also embrace effective individual strategies alongside organizational efforts to ensure that they create a balance in the digital workplace. It is imperative to create a line between work and personal life, e.g. specifying certain working hours and limiting work communication in the personal time. Time management skills like prioritizing tasks and adhering to good time management principles can help in the effectiveness of making sure that employees focus on the most important tasks and also reduce time wastage.

Frequent work-related breaks can counter burnout and enhance concentration, and mindful technology usage can be used to eliminate digital distractions and overexposure to screens. Good communication with managers and colleagues is also a way of achieving healthier work practices in terms of anticipated availability and workload. In addition, personal priorities, self-care (exercise and relaxation) and support (seeking) when needed can also play a critical role in establishing a balanced lifestyle because of the organizational policies and practices as well as personal approaches can help employees and the organization to make the digital era a healthy and sustainable place to work. The practices not only promote the welfare of the workers, but it also results in higher productivity, job satisfaction and hence raise in the long-term organizational success.

Table III suggests practical solutions for each dimension of technostress to mitigate its detrimental consequences.

TABLE III: RECOMMENDATIONS TO REDUCE TECHNOSTRESS AND IMPROVE WORK-LIFE BALANCE

Section	Recommendations	Outcome
Training	Offer employees training opportunities on how to utilise new technologies effectively. Promote the sharing of information and experiences by the employees on the use of technology. Encourage teamwork and collective problem-solving towards managing technological related challenges.	Facilitates learning and skill development. Reduces Employee Errors. Improves productivity affected by technostress. Reduces the complexity and uncertainty of technology.
Support	Provide employees using new technologies with ongoing technical assistance and guidance. Provide the availability of the support systems throughout the working hours and in the hands of experienced professionals.	Increases employee satisfaction. Prevents disruptions in work processes. Reduces feelings of technology-related uncertainty.
Learning and Experimentation	Create an interactive as well as a transparent environment between managers and employees. Reward those employees who want to learn new skills and acquire technological experience. Promote a culture of experimentation and innovation among employees.	Helps to create fresh ideas for successful execution. Reduces workers' technological insecurity.
Facilitating Technological Participation	Communicate with the staff regarding new digital tools and applications. Engage employees in decision-making prior to adopting new systems. Alter the technological systems based on workers' requirements and organisational objectives.	Increases effectiveness and job satisfaction. Strengthens organisational commitment.



Limitation	Limit unnecessary data flow and excessive emails. Organise information using proper information systems. To improve information management, use knowledge-based tools.	Reduces technology-induced overload. Minimises technology invasion into personal time.
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V. LITERATURE REVIEW

The literature suggests that employees in a variety of sectors are increasingly defining their WorkLifeBalance through the use of DigitalTechnologies, AI, and organizational policies. Table IV provides the overview of the past research, their methods, findings, and problems associated with online workplace and employee health.

R. F. Soerya Atmaja, et.al. (2025) explores how Artificial Intelligence (AI) experience, AI work engagement, and work-life balance relate in the Indonesian work environment, which is so essential because it is necessary to learn about how AI impacts employees as it gains more and more acceptance in organizations. The survey was cross-sectional and was carried out on a sample population of 432 workers across Greater Jakarta; the measurement of the variables was using a five-point Likert scale, and the hypothesis was tested using multiple regression analysis. The results show that having expertise with AI helps with work-life balance, suggesting that using AI technologies smoothly might increase productivity and decrease stress [39].

L. M. Dalisaymo and M. M. Patalay (2024) research was done using online surveys and social media questionnaires. Survey data from a diverse group of remote workers reveals that AI solutions, mainly employed for task automation and efficiency, have significantly improved respondents' ability to meet deadlines and maintain a healthy WorkLifeBalance. Nevertheless, the report highlights increasing concerns about job displacement as AI technology advances. Researchers used open-source statistics software for quantitative analysis of the data collected. They employed ANDVA to evaluate the influence of AI automation on the work-life equilibrium of digital nomads [40].

K. D. W. K.S, P. Nurtantio, and S. D. Astuti (2024) strives to identify the impact of work well-being as a mediator between technostress and family-friendly policies on WorkLifeBalance. An explanatory research strategy was used in this study. Primary data were acquired from 244 career millennial workers working in Indonesian manufacturing businesses. The PLS-SEM was carried out using Smart PLS software. According to the results, work well-being is an important component that may mitigate the negative effects of technostress and family-friendly policies on WorkLifeBalance. The millennial generation makes up the bulk of Indonesia's workforce, and this study presents new findings that may be of interest to them. This study is especially important since the COVID-19 pandemic has greatly increased the usage of technology[41].

Y. Bhatia (2023) a literature study was carried out and searches were made in the prominent database SCOPUS. Articles published in 2000 and later in peer-reviewed journals were the only ones considered. Various WLB theories, such as ConflictTheory, EnrichmentTheory, role balance/role enhancement, etc., have clearly informed scholars' divergent definitions of WLB. The majority of the time, researchers have utilized both unidirectional and multidirectional multi-item scales or measures. Researchers see the role of technology as either bidirectional and socially influenced or unidirectional and deterministic. Heterogeneity has been increased by treating ICT as a whole or device-specific. Empirical research has predominantly employed quantitative or qualitative methodologies, and occasionally both [42].

S. Schongen (2023) find out whether working-life balance is affected by gender and educational inequalities as a result of using networked digital technologies. A combination of regulatory mandates, economic concerns, and technological advancements in healthcare has accelerated the adoption of new networked digital technologies within this field of study. As a result, it offers a perfect environment for empirical research since one fundamental tenet of digitalization is that technology innovation at work has social ramifications that each person must understand. The data collected from hospital staff about their usage of networked digital technology and individual results may be used to evaluate the link between digitalization and work-life balance [43].



S. X. Duan and H. Deng (2022) explores how, in increasingly digitalized workplaces, WorkLifeBalance regulates the relationship between an individual's inherent needs and professional performance. After examining the relevant literature, a theoretical framework based on the boundary theory and the need theory is put forward. The SEM of the Australian Survey data is utilised to assess such a framework. The results show that a healthy WorkLifeBalance and a strong drive for achievement significantly impact how well an individual does their job. It shows that WorkLifeBalance completely mediates the indirect impact of autonomy on JobPerformance. This study gives fresh insight into the link between IntrinsicNeeds, WorkLifeBalance, and JobPerformance in the context of DigitalWork, being the first to analyze this interaction [44].

TABLE IV: SUMMARY OF LITERATURE REVIEW ON DIGITAL TECHNOLOGIES AND WORK-LIFE BALANCE

Authors (Year)	Study On	Apporches	Key Findings	Challenges	Research Summary
R. F. Soerya Atmaja et al. (2025)	Impact of AI experience on work engagement and work-life balance in Indonesian workplaces	Cross-sectional survey of 432 employees; Likert scale; Multiple regression analysis	AI experience positively improves work-life balance by enhancing efficiency and reducing stress	Need to better understand long-term AI impact on employee well-being	According to one study, effective engagement with AI technologies may boost productivity and help employees achieve work-life balance.
L. M. Dalisaymo & M. M. Patalay (2024)	Role of AI automation in improving work-life balance of remote workers	Online surveys and social media questionnaires; ANOVA analysis using open-source statistical tools	AI automation improves task efficiency and helps remote workers meet deadlines and maintain work-life balance	Concerns about job displacement due to AI advancement	Findings indicate AI-driven automation supports productivity but raises concerns regarding employment security.
K. D. W. K. S., P. Nurtantio & S. D. Astuti (2024)	Influence of technostress and family-friendly policies on work-life balance	Explanatory research; Survey of 244 millennial employees; PLS-SEM using SmartPLS	Work well-being mediates the relationship between technostress, family-friendly policies, and work-life balance	Rising technostress due to increased technology usage	The research highlights the importance of business policy and employee well-being in maintaining a healthy work-life balance.
Y. Bhatia (2023)	Review of work-life balance theories and role of technology	Systematic literature review using SCOPUS database	WLB concepts vary across theories; ICT impact may be unidirectional or bidirectional	Lack of standardized definitions and measurement approaches	Research emphasizes conceptual diversity in WLB studies and the complex role of technology in shaping work-life balance.
S. Schongen (2023)	Impact of networked digital technologies on	Empirical study using hospital employee data	Digital technologies influence work-life balance and	Managing societal and individual consequences	Study examines how workplace digitalization affects employee outcomes and social inequality



	work-life balance and social inequalities		may affect gender and educational inequalities	of digitalization	factors.
S. X. Duan & H. Deng (2022)	Relationship between intrinsic needs, work-life balance, and job performance	Conceptual framework; Structural equation modeling using survey data in Australia	Work-life balance mediates the relationship between intrinsic needs and job performance	Understanding employee motivation in digital work environments	Research highlights the role of autonomy and achievement needs in improving job performance through work-life balance.

VI. CONCLUSION AND FUTURE WORK

Digital technologies have fundamentally transformed the ambience of professional and personal life, offering opportunities as well as challenges for the realisation of work-life balance. Although such tools as remote communication platforms, automation systems, and flexible working arrangements improve productivity, efficiency, and autonomy, they also lead to constant connectivity, technostress, digital overload, and blurring work-home boundaries. The emergence of remote and hybrid work models has also demonstrated the necessity to have clear policies, enabling organizational cultures, and efficient time management practices. Work-Life Balance in the digital era would be a collaborative effort in which organisations offer flexible work environments, employee support programmes, and healthy digital behaviours, while individuals set boundaries, focus on self-care, and use technology responsibly. Finally, sustainable work-life balance enhances the well-being of employees, job satisfaction, and the overall organizational performance in the long term, and it is an essential factor of success in the contemporary digitally enabled workplaces.

Future studies may examine the psychological and social effects of new technologies like artificial intelligence, wearable devices, and virtual working environment in the long run in terms of WorkLifeBalance. Research on a wide range of industries, cultural backgrounds, and gender variations will be useful in shaping more inclusive policies of sustainable workplaces in digital environments.

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