

Impact of Digital Fatigue on the Work-Life Balance of Women Information Technology Professionals

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Abstract

In the field of Information Technology (IT), the increasing digitalization of working life, facilitated by remote and hybrid working has changed the landscape of professional life. Digital technologies have improved the flexibility and productivity of organisations, but over time this has led to an increase in the problem of digital fatigue. Digital fatigue is a mental, emotional and physical drain caused by the sustained use of digital devices and technology-mediated communication. In this regard, women IT professionals have their own set of challenges – they may have to deal with heavy workloads in their work and at home or take on the role of a caregiver. The aim of this study is to highlight the concept and aspects of digital fatigue, investigate the effects of digital fatigue on the work-life balance of women in the IT industry, and propose organisational interventions to reduce the negative impact of digital fatigue. The results have shown that digital fatigue has a negative impact on work life balance in terms of mental fatigue, cognitive overload, boundary collapse and physical fatigue. The study ends with recommendations for organizational interventions, such as technology-based interventions and comprehensive digital well-being policies.

Keywords: digital fatigue, technostress, work-life balance, women IT professionals, remote work and hybrid work.

1. Introduction

Digital technologies have transformed today's work environment, particularly in the field of Information Technology (IT). The way employees communicate, collaborate and work has dramatically changed with the transition to remote and hybrid work. They have granted more flexibility and autonomy to their employees, but they also led to an increase in dependence on digital technologies and virtual communication platforms among employees (Wang et al., 2021) [1].

Over the last few years digital tools like video conferencing, project management, cloud-based applications, and instant messaging have been essential to businesses. Increased productivity and greater capability to collaborate across time and place has helped to drive a growing trend of "digital fatigue",

although these technologies have managed to do so. Digital fatigue refers to the mental, emotional and physical state of being overworked or over-exposed to digital technologies and/or technology mediated communication (Ayyagari et al., 2011) [2]. Are staff members having to work on several digital platforms at once, be constantly alert to notifications, join virtual meetings and connect outside of standard hours? Are the workers forced to manage multiple digital platforms, multiple notifications and to participate in virtual meetings and communicate beyond working hours? This typically leads to one's being overwhelmed, tired and unwell.

These challenges have been exacerbated by the spread of remote and hybrid working. While working remotely is not usually as clearly distinct as working in an office. In the workplace, employees struggle to “unplug” and have been caught up in work-related activities 24 hours a day, 7 days a week, while being expected to respond immediately to work-related emails or messages (Tarafdar et al., 2019) [3]. This means that a lot of workers find themselves in a state of increased tension, less recovery time and work-life balance problems.

Work/life balance has been increasingly of interest in the field of organizational research. Effective performance in the execution of a person's professional and personal responsibilities in a manner that promotes his physical, emotional and psychological well-being (Greenhaus & Beutell, 1985) [4]. The work-life balance is key to employee satisfaction, productivity, engagement and quality of life. But with greater digitalization of the working life, it has brought new problems to the question of how to set limits between the sphere of work and non-work.

Women professionals, especially in the Information Technology sector have specific issues in this respect. In addition to coping with the hectic work life, many women are also expected to have a lot of domestic, care-giving and family related responsibilities. These competing demands can be exacerbated in remote and hybrid situations, as work and home merge. Digital fatigue could therefore be even more harmful for women working in the IT industry and their work-life balance (Hiremath & Koppad, 2025) [5].

According to the literature, mental fatigue, cognitive overload, and emotional burnout are the major effects caused by excessive screen time, excessive virtual meetings, information overload and constant connectivity (Molino et al., 2020) [6]. These can have a negative impact on employee productivity, satisfaction and even effectiveness in managing their personal responsibilities and well-being. Though in recent years, the research on digital fatigue and work-life balance (WLB) has gained considerable attention as topics in their own right, the study of digital fatigue and WLB of women working in the IT sector is an emerging field of research, particularly in India.

The current research intended to investigate the notion of digital fatigue and its effect on work-life balance of women workers in the Information Technology (IT) industry. This study aims to identify the dimensions of digital fatigue given in the literature, understand the impact of digital fatigue on work-life balance and offer organizational solutions to minimize negative impacts. The results of the study will help in the ever-increasing knowledge on employee well-being and give companies a guidepost on how to create a sustainable and healthy digital workplace.

2. Review of Literature

2.1 Understanding Digital Fatigue

The proliferation of digitalisation in the workplace has drastically changed how employees communicate, cooperate and work. Despite the benefits that the digital tools have brought in terms of flexibility and efficiency, the over-dependence on digital tools has also led to digital fatigue. Digital Fatigue: The mental,

emotional, and physical strain that can result from the constant use of digital devices, communication platforms, and information processing.

Digital fatigue is closely related to the term technostress, which refers to the stress suffered by people when they are unable to effectively manage information and communication technologies (Ayyagari et al., 2011) [2]. Researchers in the academic world claim that ongoing connectivity, information overload, multitasking and constant digital communication are important factors in cognitive fatigue and emotional burnout [2].

With most people now working from home, the use of digitization has been further exacerbated. Employees are more frequently using video conferencing systems, collaborative tools, instant messaging applications and cloud-based systems to complete their tasks. These technologies not only help to communicate well and flexibly, but can also lead to mental fatigue and insufficient psychological recovery if they are constantly used (Singh et al., 2022) [7].

2.2 The Dimensions of Digital Fatigue

According to literature, digital fatigue is a multi-dimensional issue, which would include mental fatigue, cognitive overload, and physical fatigue.

Mental Exhaustion- Mental fatigue happens when employees need to constantly filter information, juggle multiple tasks, deal with digital interactions, and stay "on" in virtual meetings. Some studies indicate that chronic mental fatigue can lead to decreased focus and attention, emotional fatigue and anxiety in the workplace (Ayyagari et al., 2011) [2].

Cognitive Overload- Cognitive overload is the term given to a person's overload of information-processing capacity. The digital working spaces introduce workers to a lot of emails, alerts, virtual meetings, and collaboration platforms. Excessive information requirements lead to employees having challenges with attention management, decision making and problem solving. It has been found that such overload is one of the causes of technostress and digital fatigue [2].

Physical Strain- Extended digital use can cause eye strain, headaches, musculoskeletal pain, tiredness, and sleep disturbances. These concerns are compounded by long hours on screens and poor ergonomic setup at work outside of the office. Physical discomfort also adds to work inefficiency and also decreases the overall health and wellness (Atrian & Ghobbeh, 2023) [8].

2.3 Digital Fatigue & Remote Working

The modern workplace has become defined with remote working. Remote working provides flexibility, autonomy, yet has also made workers more reliant on digital communication technologies. Research during and post COVID-19 pandemic has shown that employees in remote work positions often find themselves in technostress, since they are required to be constantly connected to the web, collaborate virtually, and be available around the clock (Singh et al., 2022) [7].

An "always on" culture is one of the most quoted problems of remote working. People frequently have to be available after hours to reply to emails, IMs and virtual requests. This leads to the expectation of working longer and harder, with a greater risk of stress and less recovery and relaxation time [7].

Virtual meeting fatigue has been caused by digital communication tools as well. Regular use of video conferencing means employees must pay continuous attention and have continuous cognitive engagement, leading to greater mental fatigue and lower employee welfare (Mirbabaie et al., 2020) [9].

The findings were analysed by using the descriptive qualitative research method. The data obtained were presented in descriptive qualitative analysis.

2.4 Work-Life Balance among Women Information Technology Professionals

Work-life balance is the ability of an individual to successfully balance work and life responsibilities and stay healthy. In the case of women professionals, finding a balance between work and life can be a juggling act that entails juggling the demands of both work and household, as well as motherhood and caregiving duties.

The Information Technology sector presents special challenges for women workers, because of the intense nature of their work. Project deadlines, the need to work with people all around the world, long hours and the constant need to keep up with new technology are all hallmarks of the industry. Such factors exacerbate the difficulties surrounding the need to balance work and home responsibilities.

Digital work cultures have brought opportunities and challenges to women in IT. Remote and hybrid work options offer flexibility, less commute time, and better scheduling of personal responsibilities. However, they can also engender role overlap and make boundaries between work and family life less clear. Studies show that women in digital work settings often struggle with boundary issues, increased stress, and work-life balance problems (Hiremath & Koppad, 2025) [5].

It is also known that, women are likely to suffer from more technostress due to the dual burden of career and family life. In remote work situations, the overlapping expectations of work and family often lead to higher emotional and cognitive load, impacting work-life balance and overall well-being [5].

2.5 Digital Fatigue's impact on work-life balance

Over the past few years, research into digital fatigue and work-life balance has been rising in popularity. The literature available indicates that there are several pathways in which digital fatigue can contribute to a negative work-life balance.

First, digital engagement is the first thing to do is to make the psychological presence of work last beyond the working hours. Cognitive engagement with work-related issues happens while employees are physically off their desks, via email, message and virtual communications. This has a negative effect on the opportunities for psychological detachment and psychological recovery (Bencsik, 2023) [10].

Second, digital fatigue leads to emotional exhaustion and burnout. Those who are feeling digital fatigue may notice that they have less energy, feel more irritated and lose motivation. These outcomes have a negative impact on how families relate to each other, on interpersonal relationships, and on quality of life [10].

Third, the constant availability of connectivity makes the boundaries between the professional and the personal life realm of functions more permeable. The expectations of employees being available for digital interaction outside of work hours make boundary management even more challenging. As a result, employees might have difficulties in separating their work and personal lives and this can result in work-family conflict and lower life satisfaction (Shikusinde, 2025) [11].

Lastly, digital fatigue has a detrimental effect on physical health when it comes to sleep issues, eye strain, headaches and musculoskeletal discomfort. Physical fatigue also significantly affects an individual's capacity to engage in their family, social and recreational activities, compromising their work-life balance (Atrian & Ghobbeh, 2023) [8].

3. Research Gap

With the rise of remote and hybrid work, numerous research interests are emerging in the fields of technostress, digital fatigue, employee wellbeing, and work-life balance. Previous research has explored the impact of technology on employee productivity, job satisfaction, mental health outcomes and

organizational outcomes [2, 3, 6]. Likewise, the opportunities and barriers of working remotely have been discussed, especially for the well-being of employees and work-life balance [1].

However, there are still some gaps in the literature. First, there are not many studies examining digital fatigue, technostress and work-life balance separately, and there is a lack of direct study examining the link between digital fatigue and work-life balance. Second, while the study revealed that women professionals are a vulnerable group in remote and hybrid work settings, there are relatively few studies with a specific focus on women Information Technology professionals and their experience of digital fatigue (Hiremath & Koppad, 2025) [5]. Third, a considerable amount of literature available is from the developed economy and it requires greater context understanding of the issues in emerging economy like India.

Therefore, the aim of the current study is to review the literature and gain a focused insight on the effect of digital fatigue on the work-life balance of women in the field of Information Technology.

4. Objectives of the Study

- To explore the concept and scope of digital fatigue, in a remote and hybrid work setting.
- To examine on Digital Fatigue among the Work-Life balance of Women Information Technology Professionals.
- To recommend organizational interventions that can help overcome digital fatigue and enhance the work-life balance of women Information Technology (IT) professionals.

5. Research Methodology

The present study used only secondary data. Literature was gathered from peer-reviewed journal articles, conference proceedings, books, industry reports and scholarly databases related to the concepts of digital fatigue, technostress, remote working, hybrid working, and work-life balance.

A thematic approach to reviewing and analysing collected literature. Themes related to digital fatigue, work-life balance, women professionals and organizational interventions were detected and aggregated. No primary data is gathered and all materials used are academic and professional in nature.

6. Discussion

Based on the literature reviewed, digital fatigue has become a major issue in the world of technology-driven work. Digital technologies have allowed organizations to continue operations and enhance the flexibility of the workplace, but at the same time they have put employees in an environment where they are more likely to be exposed to stressors connected to working with technology. Today digital communication tools have transformed the nature of work and its psychological recovery due to greater cognitive demands (Tarafdar et al., 2019) [3].

Extended screen time is one of the major causes of digital fatigue. Maybe you're using multiple digital tools simultaneously – project management software, video conferencing, email, instant messaging – and you're a female IT professional. This constant interaction can lead to cognitive overload and mental fatigue, which can limit the employees' capacity to effectively manage work and personal responsibilities [2, 9].

The literature also emphasizes the importance of being connected at all times in the development of work-life imbalance. Traditional distinctions between work and home have been blurred in the era of remote and hybrid work. There are more and more reports from employees that they struggle to switch off from

work communications outside of working time. This is because of the role erosion, emotional exhaustion, and life dissatisfaction experienced by the employees (Wang et al., 2021) [1].

Women professionals seem to be especially susceptible to such problems. Women in many homes are still responsible for the majority of household chores, child rearing and other care duties. There can be a conflict between work and family duties that can be a challenge to time and interest. Thus, digital fatigue can exacerbate the work–life balance issues of women professionals (Hiremath & Koppad, 2025) [5].

Moreover, digital fatigue has implications of the physical and psychological health. These technologies have been associated with various health problems, including eye strain, headaches, musculoskeletal issues, sleep disturbances, and emotional exhaustion (Atrian & Ghobbeh, 2023) [8]. The effects of these outcomes are far reaching, contributing to the wellbeing of the employee, the wellbeing of the family, social participation and quality of life. Moreover, the review emphasizes that organizational support is an essential factor affecting the reduction of digital fatigue.

Healthy use of technology, communication standards, and a focus on employee wellness are important factors in supporting sustainable work practices. The use of flexible working hours, meetings-free periods, digital wellness programs, right-to-disconnect policy, etc. have been identified as effective solutions for reducing technology-related stress and enhancing work-life balance [3, 1].

7. Recommendations and Suggestions

Through literature review, it is clear that digital fatigue has become a major problem in the technology-rich workplaces. Current studies have pointed out that organizational interventions play a significant role in alleviating technostress and enhancing employee welfare [3, 6]. So more proactive and technologically based solutions might be needed to tackle the ever-increasing problem of digital fatigue among Information Technology practitioners, especially among women who are typically juggling several professional and personal tasks.

7.1 Incentivized Automatic Screen-Regulating System

An incentivized automated screen-regulation system is one innovative way to reduce digital fatigue. Most wellness programs focus on employees taking breaks from their screens. But there are often a lot of demands on staff and workloads that make it less appealing to employees to do so.

In this proposed system, organisations could embed software which would track screen use at all times and prompt employees to break from their screens at regular intervals. If the system is used continuously for a longer period, it can automatically lock and/or temporarily suspend screen activity for a short time to promote required rest periods. These interventions can help alleviate eye strain, cognitive overload and mental fatigue from excessive screen time.

In addition, organizations can tie healthy digital behaviour to wellness incentives, employee well-being initiatives, or recognition initiatives to further encourage employees to engage in healthy digital behaviour. Regular digital breaks can help to boost focus, lower fatigue, and increase overall productivity.

7.2 AI powered glasses for fatigue monitoring for workers in high-risk environments.

The second groundbreaking measure is the creation and utilization of custom AI-powered fatigue-tracking glasses. The development of AI, wearable technology, and biometric monitoring has opened up new avenues to monitor employee health in real-time.

It might be possible for these smart glasses to have built-in sensors to measure eye strain, the number of times you blink, your posture, the head movements you make and any signs of you feeling overwhelmed. AI algorithms can identify digital fatigue symptoms early and provide personalized recommendations for

employees, like taking a break, reducing light or intensity of the screen, moving away from the computer or the work itself, etc., in the short-term.

With technology-based solutions, it is more possible to help prevent fatigue from becoming chronic stress or an imbalance with work-life. Additionally, anonymized and aggregated data can support organizations in identifying trends in the workplace that contribute to digital fatigue and inform them to design their interventions for wellness.

7.3 Enhance Digital Well-Being Policies in the Organisation

Comprehensive digital well-being policies to mitigate excessive technology stress should be developed by organizations. Successful models of communication norms and flexible working times and right to disconnect have been identified as factors that can lead to healthier digital working environments and a better working life for employees (Wang et al., 2021) [1]. This may be useful to establish and reiterate a strong work-life balance and to reduce the constant technology communication for workers.

7.4 Building A Sustainable Digital Working Culture

Industry should no longer be solely focused on productivity and promote sharing of sustainable technology use. Employers have become more aware of the need to manage the health of workers as they learn to perform their jobs in the digital world without compromising productivity (Molino et al., 2020) [6]. Employers should be educating employees on how to learn to recognize signs of digital fatigue and encourage them to take care of themselves and their work. Frequent digital detox, ergonomic support and employee assistance are also excellent methods of ensuring a healthier and more balanced environment at work.

All these recommendations can help in combating Digital Fatigue and in the overall well-being, long-term productivity and work-life balance of Women Information Technology workers.

8. Conclusion

In the modern-day, digital fatigue is a significant issue in the workplace, particularly in sectors that depend on technology. As digital communication and remote/hybrid work continues to grow, it has caused employees to be increasingly vulnerable to cognitive, emotional and physical stresses [2, 3].

The current research in this field is reviewed and implications of this on the work-life balance of female IT professionals discussed. The results indicate that digital fatigue has a negative impact on work-life balance, leading to mental fatigue, cognitive overload, emotional distress, and issues with maintaining a work-life balance. Women professionals are burdened by multiple burdens in their professional and personal lives which further aggravates these problems (Hiremath & Koppad, 2025) [5].

As companies keep rolling out digital transformation and flexible working models, the need to fight against digital fatigue will grow as well. Organisational initiatives, digital well-being and innovative technology-based solutions can play a crucial role in supporting employees' wellbeing, improving work-life balance and sustainable working practices [1, 6].

9. Limitations and scope for future research.

The present study relies on secondary data only and is, thus, dependent on the results and conclusions of previous studies. Empirical studies in the future can be conducted to find out the correlation between digital fatigue and work-life balance of women IT professionals in certain geographical areas of the country, for instance, metropolitan cities of India.

Additional studies can also investigate how other factors like age, marital status, parental responsibilities, organizational support and work arrangements moderate the relationship between digital fatigue and work-life balance. Moreover, longitudinal research of digital fatigue could give more insights into the changing nature of digital fatigue in light of the ongoing development of workplace technologies.

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