UNDERSTANDING DIGITAL FATIGUE IN THE WORKPLACE: A SYSTEMATIC LITERATURE REVIEW

Suci Permata Dewi[1]
Universitas Negeri Jakarta, Jakarta, Indonesia
sucipd.0606280@gmail.com

Mardi[2]
Universitas Negeri Jakarta, Jakarta, Indonesia
mardi@unj.ac.id

Hania Aminah[3]
Universitas Negeri Jakarta, Jakarta, Indonesia
hania@unj.ac.id

Abstract

This study aims to conduct a systematic review of the existing literature on digital fatigue in the context of human resource management, focusing on the causative factors and their impact on employee performance and well-being. Digital fatigue refers to mental, physical, and emotional fatigue that arises from excessive exposure to digital technology, such as the constant use of digital devices in daily work. Through a literature search conducted in the Scopus database, a total of 279 articles were identified, and after screening, 116 articles met the criteria for further analysis. Key findings from the review suggest that the main cause of digital fatigue is excessive use of technology, especially related to screen time, virtual meetings, and uncontrolled digital communication. The impact of digital fatigue on employees includes decreased productivity, low engagement, increased stress, and decreased job satisfaction. These findings connect with the Job Demands-Resources (JD-R) theory, which explains how high job demands, such as excessive use of technology, can increase stress and lower performance, while inadequate resources exacerbate the situation. The study also identified gaps in the literature related to organizational policy management strategies to reduce digital fatigue, as well as the need for further longitudinal research to understand its long-term impacts. The practical implications of this study show the importance of managing technology in the workplace and developing policies that support employee well-being in the digital age.

Keywords: Digital Fatigue, Human Resource Management, Employee Well-Being, JD-R, Digital Technology

INTRODUCTION

The development of digital technology has significantly changed the way we work and interact in the workplace. In an increasingly connected and technology-filled environment, organizations rely on digital devices to increase efficiency and facilitate communication between team members. However, the phenomenon of *digital fatigue*, which arises due to the excessive use of digital devices, is getting more and more attention. This fatigue not only affects employee performance but also their mental and physical well-being (Azam, T. et al., 2025; Shoaib, L.A. et al., 2025).

Digital fatigue is often associated with increased workloads and a high reliance on technological devices for communication and daily tasks. In the context of human resource management, this has the potential to lead to decreased motivation, higher stress, and decreased employee productivity. This fatigue can affect individual performance and lead to a decrease in the quality of interactions between colleagues, as well as decreased employee engagement with their work (Phillips, B. et al., 2025).

One of the important aspects that affects the emergence of *digital fatigue* is the intensity of the continuous use of technology, whether for communication via email, virtual meetings, or the use of cloud-based applications for team collaboration (Ibrahim, R.K. et al., 2025). Over-reliance on technology can lead to ongoing stress that impacts long-term performance. In this regard, it is important for organizations to understand the factors that cause *digital fatigue* in order to manage and reduce its negative impact on employee well-being (Nooh, S.A. et al., 2025).

Although research on *digital fatigue* has been conducted, there is still a gap in understanding the most effective ways to manage and mitigate the negative impacts of this phenomenon, particularly in the context of human resource management. Much of the existing research is still limited to case studies or separate studies, which makes it difficult to get a comprehensive and holistic picture of the issue. Therefore, a Systematic Literature Review (SLR) is needed to summarize and evaluate the existing literature in more depth.

This SLR will identify key findings, emerging trends, and gaps in existing research, as well as provide more structured insights into effective ways to reduce *digital fatigue*. Thus, this article aims to provide evidence-based recommendations that can be applied by organizations in designing welfare policies that take into account the phenomenon of *digital fatigue* in the workplace, and help improve human resource management in the digital age.

Research Objectives

The purpose of this study is to conduct a systematic review of the existing literature on *digital fatigue* in the context of human resource management, with a focus on identifying the main causative factors, their impact on employee performance and well-being, and the strategies that have been implemented to manage this phenomenon. This research also aims to uncover gaps in the existing literature and provide evidence-based recommendations for HR practitioners in designing effective policies to reduce the impact of *digital fatigue*.

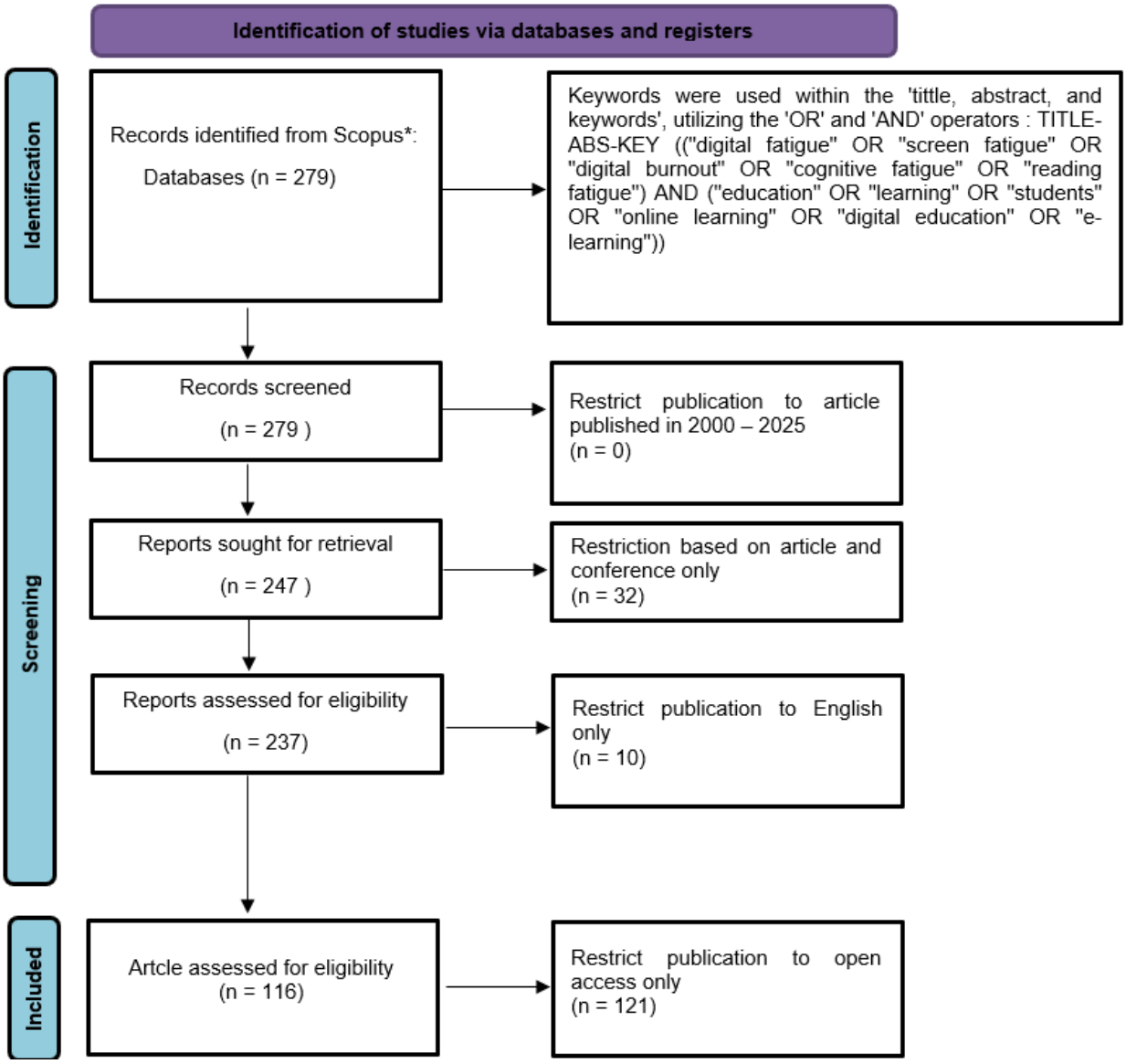
Research Questions (RQ)

1. **RQ1**: What are the main factors that cause *digital fatigue* that have been identified in the literature related to human resource management, and how do these factors affect employee performance and well-being?
2. **RQ2**: What is the impact of *digital fatigue* on employee work productivity, engagement, and job satisfaction in digital-dependent organizations?

RESEARCH METHOD

In this study, the literature search and article selection process followed the guidelines of PRISMA 2020 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses), which provides a standard for compiling and reporting systematic literature reviews with transparency and consistency. The PRISMA guidelines include systematic steps in identifying, screening, and evaluating articles relevant to the topic under study. As part of this process, a PRISMA flowchart was used to clearly illustrate how the articles were selected, including the number of articles identified from the initial search, the articles screened, and the articles that were ultimately included in the analysis.

The table below presents a **PRISMA flow diagram** illustrating the process of searching, filtering, and selecting articles in this study, which follows standard procedures as per PRISMA guidelines to ensure transparency in the selection of relevant and quality literature.



The literature search for this study was conducted by identifying relevant studies on *digital fatigue* in the context of human resource management, using leading scientific databases such as Scopus. The search strategy used involves a combination of relevant keywords, namely *"digital fatigue," "screen fatigue," "digital burnout," "cognitive fatigue,"* and *"reading fatigue"* combined with keywords related to education and digital learning, such as *"education," "learning," "students," "online learning," "digital education,"* and *"e-learning."* This search is performed using the OR and AND logic operators within the article's title, abstract, and keywords, with restrictions on articles published between 2000 and 2025. Only articles published in English and that are open access are included in the analysis, to ensure the affordability and quality of the literature used.

From these search results, 279 articles were found in the Scopus database. The identified articles then go through a screening process based on inclusion and exclusion criteria. The inclusion criteria include articles relevant to the phenomenon of *digital fatigue* in the context of human resource management or digital education, which are published in English and are publicly accessible. Articles that are not relevant to the topic or that are not journal articles are selected to be excluded from the analysis. This selection process resulted in 116 articles that met the criteria and could be used for further review.

Once the relevant articles have been selected, the next stage is the classification and synthesis process. This process was carried out by analyzing the selected articles using the qualitative synthesis method, where the main themes related to *digital fatigue* were extracted from various studies. These themes include the main causes of *digital fatigue* in the workplace, its impact on employee performance and well-being, and the strategies that organizations have implemented to manage this phenomenon. Thematic analysis is used to group key findings from the existing literature and compare them to provide a more comprehensive picture of the topic.

As part of the quality evaluation process, each selected article is evaluated using a quality assessment scale based on the PRISMA 2020 guidelines. This evaluation includes an examination of the clarity of the research objectives, the methodology used, the quality of the analysis presented, the data sources used, and the structure and writing of the article itself. Only articles that meet the quality criteria are included in the thematic synthesis, ensuring that these reviews are based on valid and trustworthy literature.

With this approach, this study aims to provide an in-depth and systematic review of the phenomenon of *digital fatigue*, as well as provide relevant insights for human resource management practitioners in managing these challenges in the workplace, with the aim of improving employee well-being and productivity in the digital era.

RESULTS AND DISCUSSION

In this study, 279 articles relevant to the topic of digital fatigue were identified from the Scopus database, which were then filtered according to inclusion and exclusion criteria. Of the selected articles, a total of 116 articles met the criteria for further analysis. The articles were published in a time span between 2000 and 2025, with 2025 being the year with the most publications, reflecting the trend of increasing attention to digital fatigue in recent years.

Key Findings

Some of the key findings found in this literature review include:

There has been an increase in publications on digital fatigue in recent years, which shows an increase in awareness of this issue in various sectors, especially related to digital education and mental health.

Key causal factors that often appear in the literature include excessive use of technology and changes in digital work patterns, which contribute to increased employee stress and decreased well-being.

The main impacts found are decreased employee performance, reduced engagement in work, and increased job dissatisfaction due to constant exposure to technology.

In addition, the studies highlight a variety of management strategies that have been implemented, such as time-flexibility policies and reduced use of technology, although the effectiveness of these strategies still varies.

Research Gaps

Limitations in research that examines managerial policies that can reduce digital fatigue in the workplace. Much of the literature is more focused on individual approaches, such as reducing screen time or increasing awareness of digital fatigue, but organizational policy-based management strategies are still relatively little researched. More holistic policies, which involve HR management in designing policy- and technology-based interventions, need to be explored further.

Although many studies have addressed the phenomenon of digital fatigue, there are still some significant gaps in the existing literature. One of the key gaps is the lack of longitudinal research that can provide a deeper understanding of how digital fatigue evolves over time and its impact on employees in the long run. Most of the existing research is cross-sectional, providing only a situational picture and is not able to describe the changes that occur due to long-term exposure to technology.

In addition, the research-focused sectors are also unevenly distributed, with most studies focusing on the digital education and mental health sectors, while the human resource management sector and the impact of digital fatigue on workplace productivity are still minimal. This opens up a great opportunity for further research to explore how this phenomenon affects overall organizational performance and how companies can integrate digital fatigue management in their HR practices.

As such, there are still many areas that need to be explored more deeply, especially related to policy-based approaches, long-term strategies, and the influence of certain sectors in digital fatigue management.

CONCLUSION

This research provides deeper insights into the causes and impacts of *digital fatigue* faced by employees in the context of human resource management. Based on the literature review conducted, the main cause of *digital fatigue* is the excessive use of technology, especially in the form of long screen time, virtual meetings, and constant digital communication. These factors support findings that exist in the previous literature, such as those found by Azam et al. (2025), which suggest that excessive exposure to digital devices leads to physical and mental stress. In addition, cognitive fatigue and digital burnout emerged as the main causative factors, which affect employees' cognitive abilities and motivation in completing their jobs effectively. Previous research, as described by Shoaib et al. (2025),

identified burnout as a direct result of increased digital demands in the workplace excessively.

The impact of *digital fatigue* found in this study reflects a decline in employee performance, engagement, and job satisfaction, which is in line with findings in the previous literature, as expressed by Phillips et al. (2025). Employees who experience digital fatigue report decreased concentration, creativity, and efficiency in their work, leading to a decrease in the quality of completed tasks. Additionally, high levels of stress and prolonged burnout lead to decreased employee engagement, which can affect their loyalty to the organization and even increase absenteeism and employee turnover. These findings connect with the Job Demands-Resources (JD-R) theory, which explains how excessive job demands, in the absence of sufficient resources to manage those pressures, can lead to burnout and decreased performance.

Study Limitations

While this study provides useful insights into the phenomenon of *digital fatigue*, there are some limitations that need to be noted. One of the main limitations is the limited number of studies that examine in depth the organization's policy strategies in overcoming *digital fatigue*. Most of the existing research focuses more on digital education and mental health, while human resource management in the corporate and industrial sectors is still rarely discussed. Most of the articles reviewed were qualitative research, which provided in-depth insights but were difficult to generalize to larger populations or to strongly identify cause-and-effect relationships. In addition, most studies are cross-sectional, which limits the ability to observe changes that occur over time and how *digital fatigue* develops over the long term.

Further longitudinal research is needed to explore how *digital fatigue* evolves over time and its impact on long-term performance and employee well-being. In addition, more studies adopting quantitative methods are needed to precisely measure the relationship between variables related to *digital fatigue*, such as technology use, stress, and work productivity.

Practical and Theoretical Implications

These findings reinforce the importance of Job Demands-Resources (JD-R) as a framework for understanding the impact of *digital fatigue*. This theory explains how the high demands of work, such as excessive use of technology, can increase stress, while the lack of resources to deal with them, such as policies that support well-being, exacerbates the situation. This research contributes to our understanding of the relationship between digital job demands and employee well-being, as well as how these factors affect overall organizational performance.

The findings of this study have important practical implications for human resource management practitioners. Organizations need to start considering implementing more effective policies to manage the use of technology and reduce *digital fatigue* among employees. One approach that can be implemented is better screen timing, providing an opportunity for employees to take enough breaks between the use of digital devices. In addition, policies that are more supportive of employees' mental well-being, such as time flexibility policies and the reduction of non-essential virtual meetings, can help reduce the impact of *digital fatigue*. This approach is in line with previous findings, which show that reduced digital workloads and increased managerial support can help relieve stress and improve employee well-being.

Directions for Further Research

While the findings from this study have provided important insights, there are still many areas that need to be explored further. First, more in-depth research is needed on organizational policy strategies that can help reduce *digital fatigue*. More research is needed to explore how better organizational policies in terms of managing the use of technology can reduce negative impacts on employees. In addition, longitudinal studies examining the development of *digital fatigue* over time will provide a more complete picture of the long-term impact of this phenomenon.

Second, although there is a lot of research that identifies the main causes, impacts, and strategies for *managing digital fatigue*, there are still few studies that explore the influence of specific sectors, such as the industrial sector or technology companies, in managing this phenomenon. More research on these sectors will be useful for understanding the dynamics of *digital fatigue* more specifically and developing more effective solutions.

Third, although digital education and mental health are often discussed, the human resource management sector needs more research on how HR policies can more effectively address the challenges posed by *digital fatigue*. Further research examining integrated policy-based and technology-based interventions can provide more comprehensive solutions for companies.

As such, further research should focus on policy-based interventions, longitudinal research, as well as the development of integrative models that combine human resource management, technology management, and employee well-being. This will enrich our understanding of how organizations can more effectively manage *digital fatigue* and improve employee performance and well-being in the digital age.

REFERENCES

Balaskas, S., Konstantakopoulou, M., Yfantidou, I., & Komis, K. (2025). Algorithmic burnout and digital well-being: Modelling young adults' resistance to personalized digital persuasion. *Societies, 15*(8), 232. https://doi.org/10.3390/soc15080232

Cajas Bravo, V. T., Huanca Rojas, L. M., Arias Lizares, A., Ramírez Cajamarca, J. C., Vasquez Perdomo, F., De la Cruz Cruz, M. A., Romero Girón, H., Guerrero Millones, A. M., & Dávila-Morán, R. C. (2025). Can ChatGPT ease digital fatigue? Short-cycle content curation for university instructors. *Education Sciences, 15*(9), 1223. https://doi.org/10.3390/educsci15091223

Charoenporn, V., Hanvivattanakul, S., Jongmekwamsuk, K., Lenavat, R., Hanvivattanakul, K., & Charernboon, T. (2024). Zoom fatigue related to online learning among medical students in Thailand: Prevalence, predictors, and association with depression. *F1000Research, 13*, 617. https://doi.org/10.12688/f1000research.146084.2

de Oliveira Kubrusly Sobral, J. B., Lima, D. L. F., Lima Rocha, H. A., de Brito, E. S., Duarte, L. H. G., Bento, L. B. B., & Kubrusly, M. (2022). Active methodologies association with online learning fatigue among medical students. *BMC Medical Education, 22*, 74. https://doi.org/10.1186/s12909-022-03143-x

Elbogen, E. B., Lanier, M., Griffin, S. C., Blakey, S. M., Gluff, J. A., Wagner, H. R., & Tsai, J. (2022). A national study of Zoom fatigue and mental health during the COVID-19 pandemic: Implications for future remote work. *Cyberpsychology, Behavior, and Social Networking, 25*(7), 409–415. https://doi.org/10.1089/cyber.2021.0257

Fauville, G., Luo, M., Queiroz, A. C. M., Bailenson, J. N., & Hancock, J. (2021). Zoom Exhaustion & Fatigue Scale. *Computers in Human Behavior Reports, 4*, 100119.

Iqram, M., & Irawaty, E. (2023). Zoom exhaustion and fatigue during the hybrid learning period at the Faculty of Medicine, Tarumanagara University. *Tambusai Health Journal, 4*(3).

Lestari, P. W., & Fayasari, A. (2022). Zoom fatigue during the COVID-19 pandemic: Is it real? *Kesmas: National Public Health Journal, 17*(2), 151–156.

Oducado, R. M. F., Dequilla, M. A. C. V., & Villaruz, J. F. (2022). Factors predicting videoconferencing fatigue among higher education faculty. *Education and Information Technologies, 27*(7), 9713–9724.

Salim, J., Tandy, S., Arnindita, J. N., Wibisono, J. J., Haryanto, M. R., & Wibisono, M. G. (2022). Zoom fatigue and its risk factors in online learning during the COVID-19 pandemic. *Medical Journal of Indonesia, 31*(1), 13–19

Shetty, N. V., Shareena, P., Mehar, A., & Shetty, M. C. (2025). Do digital fatigue and psychological safety influence faculty retention? Examining the roles of advocacy behavior and green HR practices. *Knowledge and Performance Management, 9*(2), 124–141.

Yglesias-Alva, L. A., Estrada-Alva, L. A., Lizarzaburu-Montero, L. M., Miranda-Troncoso, A. E., Vera-Calmet, V. G., & Aguilar-Armas, H. M. (2025). Digital fatigue in Peruvian university students: Design and validation of a multidimensional questionnaire. *Journal of Educational and Social Research, 15*(3), 431.

Zuana, M. M. M., Toha, M., & Isbahi, M. B. (2024). Exploration of Community Empowerment in a Village as the Entrance to a Lake in East Java. *Malacca: Journal of Management and Business Development* , *1*(1), 47–55. https://doi.org/10.69965/malacca.v1i1.52