

Effects of technostress on professional performance

Revista de Gestão

Caroline Remor

Escola do Agronegócio, Atitus Educação, Passo Fundo, Brazil

Alexandre Cappelozza

Centro de Ciências Sociais Aplicadas, Universidade Presbiteriana Mackenzie, Sao Paulo, Brazil

Juliane Ruffatto

Escola da Saúde, Atitus Educação, Passo Fundo, Brazil

Gustavo Hermínio Salati Marcondes de Moraes

Faculdade de Ciências Aplicadas, Universidade Estadual de Campinas, Limeira, Brazil, and

Jandir Pauli

Escola do Agronegócio, Atitus Educação, Passo Fundo, Brazil

329

Received 13 February 2026

Revised 9 May 2026

Accepted 1 September 2026

Abstract

Purpose – This study analyzes the effects of technostress on work engagement, workplace distraction, and professional performance.

Design/methodology/approach – This study adopts a quantitative approach, using Structural Equation Models to test five hypotheses. Data were collected through a questionnaire administered to 364 professionals who used information technology in their activities.

Findings – The results demonstrated that technostress exerted opposite influences on work engagement and workplace distraction. In addition, the results indicate that more engaged and less distracted professionals tend to achieve higher performance levels in their activities. The research also revealed that more engaged professionals tend to be less prone to distractions during their activities.

Practical implications – The study advocates that Organizations should invest in strategies to reduce the impact of technostress to increase work engagement and professional performance and reduce workplace distractions.

Originality/value – This study advances the literature by integrating technostress, work engagement and workplace distraction into a single structural model, highlighting their simultaneous and contrasting effects on employees' professional performance. This research provides a more comprehensive understanding of how technostress operates as a dual mechanism, both reducing engagement and increasing distraction, thereby extending the JD-R framework in the context of digital work.

Keywords Professional performance, Distraction, Work engagement, Technostress

Paper type Research article

1. Introduction

Information and Communication Technologies (ICT) have assumed a central role in shaping social structures, influencing individual behaviors, and determining organizational outcomes. Work environments have become heavily dependent on these technologies owing to their development, integration, and intensive use (Divya & Narwal, 2023). In 2022, it was estimated that 5 billion people worldwide accessed the Internet through computers or mobile devices,



© Caroline Remor, Alexandre Cappelozza, Juliane Ruffatto, Gustavo Hermínio Salati Marcondes de Moraes and Jandir Pauli. Published in *Revista de Gestão*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <http://creativecommons.org/licences/by/4.0/>

Revista de Gestão

Vol. 33, 2026

pp. 329-343

Emerald Publishing Limited

e-ISSN: 2177-8736

p-ISSN: 1809-2276

DOI 10.1108/REGE-02-2026-0030

accounting for 67.9% of the global population. In Brazil, this number reached 178.1 million, equivalent to 82.8% of the national population ([Internet World Stats, 2023, 2024](#)).

Almost two decades ago, the American Federation of Labor ([AFL-CIO, 2006](#)) already indicated that the possibility of working from anywhere at any time could be seen as an advantage. However, studies such as those by [Cavazotte, Lemos, and Brollo \(2014\)](#) demonstrate that the intensive use of corporate smartphones extends the workday and compromises the boundaries between personal and professional life. [Mazmanian, Orlikowski, and Yates \(2013\)](#) reinforce this idea by stating that the supposed autonomy promoted by virtual work is paradoxical, as technology makes work demands instantaneous, overloading professionals.

As the use of digital technologies in the workplace intensifies, it becomes difficult to disentangle stress-related effects from organizational norms that emphasize immediacy and constant responsiveness ([Dragano & Lunau, 2020](#)). Although such innovations represent economic gains for organizations, they also have negative impacts, such as social, physical, and psychological problems ([Cappellozza, Moraes, & Muniz, 2017](#)). In this sense, technological demands can transcend the cognitive sphere and manifest as physical pathologies that compromise workers' productivity ([Arik & Graves, 2023](#)).

Among the negative effects observed, the reduction in professional performance stands out, as it is associated with increased health costs, absenteeism, turnover, and work accidents ([Cione, 2018](#)). Specifically, technostress, stress related to the excessive or inappropriate use of ICTs, has been associated with symptoms of burnout, reduced productivity, communication failures, and deterioration of interpersonal relationships ([Day, Paquet, Scott, & Hambley, 2012](#); [Molino et al., 2020](#)).

Another relevant factor is workplace distraction, often related to the personal use of technological devices during working hours. This practice is directly linked to decreased work engagement, resulting in a loss of concentration and focus ([Cappellozza et al., 2017](#)).

From an organizational perspective, the costs associated with workplace distractions are significant. [Bialowolski, McNeely, VanderWeele, and Weziak-Bialowolska \(2020\)](#) conducted research with a large North American manufacturer and revealed that workplace distraction accounted for 93.6% of the company's annual productivity loss, while absenteeism due to illness accounted for only 6.4%. This data demonstrate the direct financial impact of workplace distraction on return on sales and organizational efficiency. Therefore, the effectiveness of organizational interventions in mitigating workplace distractions depends on recognizing this vulnerability and prioritizing healthy worker support mechanisms as protective factors for professional performance ([Rosa, Miranda, & Pascoal, 2025](#)).

In this context, it is relevant to deepen the understanding of the impacts of the intensive use of technologies in the workplace, especially regarding the well-being and productivity of professionals. Technostress, work engagement, and workplace distraction are central variables for explaining work behavior and organizational outcomes.

Despite the growing body of research on technostress, prior studies have predominantly examined its effects in isolation, focusing on outcomes such as burnout, job satisfaction, and performance independently ([Cappellozza et al., 2017](#); [Spagnoli et al., 2020](#)). However, limited attention has been paid to the simultaneous and potentially opposing mechanisms through which technostress affects both work engagement and workplace distraction.

Furthermore, the mediating interplay between engagement and these constructs in explaining professional performance remains underexplored, particularly in emerging economies such as Brazil. By addressing these gaps, this study contributes to the literature by proposing and empirically testing an integrated model that captures the dual pathways through which technostress shapes behavioral and performance outcomes.

2. Professional performance

Professional performance refers to an individual's capability to effectively carry out their duties and responsibilities, which is shaped by various elements such as motivation, available resources, and the organizational setting (Gabardo-Martins *et al.*, 2023). In practical terms, its importance lies in the fact that it is one of the main factors generating value for individuals and organizations (Saidin, Wan, & Halim, 2024).

Recent studies highlight the necessity of modern approaches to performance assessment that account for individual uniqueness and diverse organizational contexts. In this regard, Sandall and Mourão (2023) proposed an evaluation model that values work styles, professional identity, and individual values as determining factors for a more accurate understanding of performance. This perspective reinforces the need for personalized evaluations integrated with comprehensive people management diagnoses.

In addition to technical and operational aspects, performance is influenced by behavioral and emotional factors. Santos and Beuren (2021) demonstrate, through a study of judicial accounting experts, that traits such as proactivity, organization, and discipline significantly impact the quality of task execution. These findings align with evidence highlighting the importance of behavioral skills in professional performance.

Dapper and Moreira Sobrinho (2023) indicated that issues such as anxiety, emotional exhaustion, and lack of social support adversely affect productivity and concentration in the workplace, directly impacting professional performance. This underscores the necessity of organizational strategies that foster healthy and supportive environments.

Professional performance encompasses all behaviors exhibited by employees during their job activities, including job-specific tasks, interpersonal interactions and adaptive behaviors. Organizations typically formally assess performance behaviors by integrating job responsibilities and expectations. Ribeiro, Dias, and da Silva (2022) also highlight the importance of adaptive performance, that is, the ability to respond effectively to changes, unforeseen events, and new demands, which is increasingly necessary in the context of digital transformation and innovation. However, it is important to consider that external factors, such as the intensive use of technology, can negatively affect performance. Cappelozza *et al.* (2017) reported that the loss of control in the use of technology may generate workplace distractions, compromising focus and, consequently, professional productivity.

3. Workplace distraction

Workplace distraction is a growing phenomenon that compromises both the productivity and well-being of professionals. It can manifest in various ways, such as in-person interruptions or digital disruptions, and directly affect abilities such as communication, concentration, cognitive flexibility, and time management (Pinnow, Causey-Upton, & Meulenbroek, 2022).

The link between emotional conditions and workplace distraction is noteworthy: traumatic events or stressful circumstances at work can lead to "avoidance-distraction" behaviors, making it challenging to focus and heightening irritability (Zhu, Eli, Chen, & Liu, 2023). Similarly, toxic work environments contribute to increased workplace distractions, reduce engagement, and favor the emergence of anxiety and depression symptoms, which directly affect performance (Rasool, Wang, Tang, Saeed, & Iqbal, 2021).

Regular interruptions from colleagues and concurrent demands detrimentally affect attention, creating a cycle of workplace distraction that hinders task performance effectiveness (Iqbal, Asghar, & Asghar, 2022). Although digital technologies enhance connectivity and information access, they are major contributors to modern workplace distractions. The proliferation of smartphones and unrestricted social media use during work hours has led to increased cognitive overload and decreased work engagement (Bilderback, 2024; Orhan, Castellano, Khelladi, Marinelli, & Monge, 2021).

Managing multiple online communications simultaneously, such as emails, instant messages, and social media, adversely affects self-regulation and work engagement, directly

impacting professional performance (Orhan *et al.*, 2021) because the human attentional system has a limited capacity for multitasking that requires cognitive control (Juárez *et al.*, 2022). These distracting behaviors are often automatic and spontaneous, occurring without planning or full awareness of the consequences (Chen, Nath, & Tang, 2019). Furthermore, emotional overload can trigger workplace distractions and exhaustion, compromising operational effectiveness (Barros & Honório, 2015). Difficulty concentrating suggests that stress acts as a negative mediator of work engagement and organizational effectiveness (Pereira, Braga, & Marques, 2014).

In this context, strict control mechanisms do not eliminate distracting behavior, suggesting that managers could develop policies focused on employee well-being to enhance business productivity by addressing the social and psychological needs (Pardim, Pinochet, & Souza, 2024). Considering that professional performance depends on the ability to direct cognitive and emotional resources towards specific goals (Koopmans, Bernaards, Hildebrandt, de Vet, & Van der Beek, 2014; Orhan *et al.*, 2021), it is understood that recurrent interruptions, digital overload, and other distractions significantly reduce this capacity. Thus, the following hypothesis is proposed:

H1. Workplace Distraction negatively influences professional performance.

4. Work engagement

Work Engagement has been consolidated as one of the main factors associated with individual and organizational performance. In an era characterized by intense competition and rapid change, organizations striving for sustainability must prioritize investments in infrastructure, technology, and strategies that enhance their human capital. Employee motivation, satisfaction, and engagement are key to organizational productivity and success (Kobrnovicz & Stefano, 2020).

Schaufeli, Salanova, González-Romá, and Bakker (2002) identified it as a positive psychological state marked by vigor, dedication, and absorption. Vigor denotes high levels of energy and mental resilience; dedication involves a profound and enthusiastic commitment to work; and absorption refers to complete immersion in one's professional activities. Gruman and Saks (2011) highlight work engagement as an effective means of generating competitive advantage because it stems from individual attitudes and behaviors that drive performance.

Empirical studies corroborate these findings: Fong and Ng (2012) point out that engaged professionals demonstrate a greater willingness to invest effort in tasks, resulting in greater effectiveness in the workplace. Research conducted by Kirk-Brown and Dijk (2011) and Gorgievski, Bakker, and Schaufeli (2010) reinforces this relationship by identifying positive correlations between work engagement and performance in different sectors and contexts. Additional research indicates that work engagement promotes job satisfaction, employee retention, and significant business outcomes (Harter, Schmidt, & Hayes, 2002; Moreira, Rodrigues, de Mattos, & de Souza Costa, 2022; Rich, Lepine, & Crawford, 2010). Therefore, the following hypothesis is proposed:

H2. Work Engagement positively influences professional performance.

In addition to enhancing performance, work engagement serves as a protective mechanism against distractions in the workplace. Engaged employees tend to be more immersed in their activities and less susceptible to interruptions and irrelevant stimuli (Bakker & Leiter, 2010). The pervasive presence of digital communication technologies, while enhancing efficiency, presents significant challenges in sustaining work engagement due to fragmented attention. However, empirical research indicates that high work engagement makes individuals more persistent and focused on their goals, facilitating the elimination of attentional barriers, such as the impulsive use of technology. Consequently, work engagement functions not only as a

byproduct of productivity but also as a behavioral regulator that diminishes workers' susceptibility to attention fragmentation (Mazid, Samantaray, & Moirangthem, 2025).

Recent literature highlights that digital distraction, characterized by the use of mobile devices and personal applications during working hours, undermines concentration and adversely affects productivity (Farivar, Esmaeelinezhad, & Richardson, 2022; Harunavamwe, Ward, & Marange, 2025). Studies such as that by Cappellozza *et al.* (2017) demonstrate that low levels of work engagement favor the non-functional use of technology in the professional environment, evidencing an inverse relationship between work engagement and workplace distraction. Based on this evidence, the following hypothesis was formulated:

H3. Work engagement negatively influences workplace distraction.

The intensification of the use of information and communication technologies has transformed organizational practices but has also been associated with side effects such as technostress (Tarafdar, Tu, Ragu-Nathan, & Ragu-Nathan, 2011).

5. Technostress

The increasing reliance on ICTs within organizations has rendered technostress a significant phenomenon in modern workplaces. This concept pertains to stress induced by excessive or inappropriate use of technology, which adversely affects mental health, productivity, and employee satisfaction (Borle, Reichel, Niebuhr, & Voelter-Mahlknecht, 2021). It is a psychosocial response to technological demands perceived as excessive, complex, or intrusive, which challenge individual resources to deal with these demands (Tarafdar, Cooper, & Stich, 2019).

The term "technostress" was coined by Brod (1984), a clinical psychologist, who defined it as a modern disease of adaptation caused by the inability to deal in a healthy way with new technologies. Since its inception, numerous scholars have explored its various dimensions and implications for individuals and organizations (Kumar, 2024).

The repercussions of technostress are extensive and impact professionals at multiple levels. Psychologically, it correlates with heightened anxiety, job dissatisfaction, emotional exhaustion, and diminished organizational commitment (De Paula & Cappellozza, 2021; Borle *et al.*, 2021).

Kumar (2024) emphasized that the interplay between high technological demands and insufficient support can precipitate a cycle of burnout, dissatisfaction, and poor performance. Conversely, enhancing personal and organizational resources, such as providing training, technical support, and encouraging digital breaks, can alleviate these effects and foster sustainable well-being and performance among employees.

At the organizational level, technostress contributes to reduced productivity and performance, increases turnover intention and absenteeism, and compromises the organizational climate (Carvalho & D'Angelo, 2021; Tarafdar *et al.*, 2011). Beyond emotional and physical repercussions, technostress undermines cognitive self-regulation, leading to workplace distractions. The proliferation of platforms, excessive notifications, and information overload hinder focus, necessitating continuous efforts to shift attention. Consequently, professionals experiencing high levels of technostress often exhibit greater distraction, adversely affecting their productivity and output (Juárez *et al.*, 2022). Furthermore, the fourth hypothesis is formulated as follows:

H4. Technostress positively influences workplace distraction.

Despite the recognized advantages and satisfaction associated with the integration of technologies in the workplace, a paradox emerges: the same technological tools that enhance professional autonomy can simultaneously institutionalize psychological pressure mechanisms. This duality underscores the importance of analyzing technostress as both a byproduct of technology use and an organizational phenomenon linked to mobile technology

utilization, workplace distractions, and the maintenance of work engagement in professional activities (Beno & Caganova, 2024).

Anxiety and overload resulting from excessive technology use diminish workers’ physical and emotional energy levels, impeding their ability to commit to work activities and adversely affecting work engagement. Recognizing that organizational support serves as a balancing factor between technological burnout and productive engagement shifts the analytical focus from purely technological considerations to people management (Harunavamwe *et al.*, 2025).

In this sense, Bernburg, Tell, Groneberg, and Mache (2024) identified technical and organizational support as crucial moderators that mitigate adverse effects and help preserve work engagement. Conversely, the absence of adequate support can exacerbate professional demotivation and emotional detachment from the organization. Based on the aforementioned considerations, the following research hypothesis is proposed.

H5. Technostress negatively influences work engagement.

From a theoretical perspective, this study is grounded in the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007), in which technostress can be understood as a job demand that depletes employees’ resources, reducing engagement and increasing maladaptive behaviors, such as distraction. Conversely, job resources foster engagement and enhance performance. By integrating technostress, work engagement, and workplace distraction, this study extends the JD-R framework by demonstrating how technological demands simultaneously influence both motivational and impairment processes that affect professional performance.

Based on the hypotheses above, a conceptual model was developed, as shown in Figure 1.

6. Methodology

This study used a quantitative, confirmatory, and cross-sectional methodological approach, and the data were collected at a single moment in time. The investigation sought to test hypothetical causal relationships between the constructs through Structural Equation Modeling via Partial Least Squares (PLS-SEM), operationalized with SmartPLS 4.1.1.2 software (Ringle, Wende, & Becker, 2024). Data were collected using a structured questionnaire composed of validated scales measuring four constructs: technostress, work engagement, workplace distraction, and professional performance, with the measurement instrument available in the Appendix. All items were assessed using a seven-point Likert scale ranging from 1 (“strongly disagree”) to 7 (“Strongly agree”). Technostress was measured using the scale developed by Ayyagari, Grover, and Purvis (2011) and adapted by Giudice da Silva Cezar and Maçada (2021). Professional performance was assessed using items from Karr-Wisniewski and Lu (2010) and Chen and Karahanna (2018). Workplace distraction was measured using items from the Health and Work

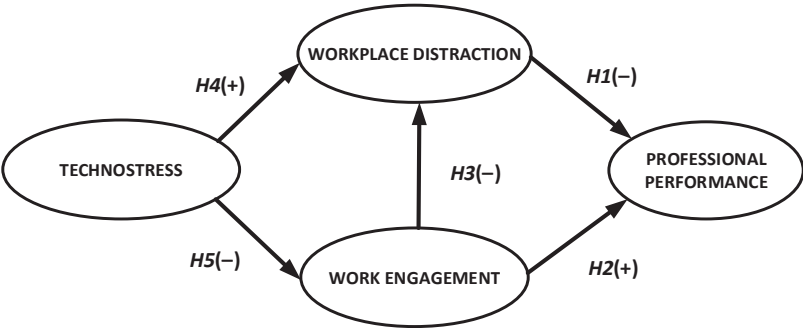


Figure 1. Conceptual research model

Questionnaire (Shikiar, Halpern, Rentz, & Khan, 2004), which was adapted by Cappellozza *et al.* (2017). Work engagement was measured using the scale proposed by Siqueira, Orengo, and Peiró (2014).

The inclusion criteria were as follows: (1) age 18 years or older, (2) professionally active at the time of data collection, and (3) use of information and communication technologies in the performance of their duties. Individuals without professional contact with digital technologies did not participate in this study.

The adequacy of the sample was tested using G*Power 3.1.9.6 software (Faul, Erdfelder, Buchner, & Lang, 2009), with parameters of statistical power of 0.95, significance level of 5%, and mean effect size ($f^2 = 0.15$), resulting in a minimum required size of 119 participants. The final sample, composed of 364 respondents, exceeded the minimum with a safety margin. The average age of the respondents was 31.8 years, and the average length of professional experience was 12.3 years. Regarding the distribution by gender, 54.1% of the participants identified themselves as women.

To validate the structural hypotheses, the bootstrapping resampling method was used with 5,000 samples (Hair, Anderson, Tatham, & Black, 2005). The values of R^2 and the Variance Inflation Factor (VIF) were also analyzed to control for multicollinearity. This study complied with the ethical precepts established by Resolution No. 510/2016 of the National Health Council. All participants signed an Informed Consent Form (ICF), and the data were analyzed in an aggregated and anonymous manner.

7. Results and discussion

The proposed research model includes four first-order reflective constructs: technostress, work engagement, workplace distraction, and professional performance. Initially, the following criteria for the latent constructs were examined: internal consistency, composite reliability (C.R.), convergent validity, and discriminant validity. Convergent validity was evaluated using the Average Variance Extracted (A.V.E.), and values higher than 0.50 were accepted (Hair, Ringle, & Sarstedt, 2011). Internal consistency was verified based on composite reliability, with recommended values greater than 0.70 (Hair, Hult, Ringle, & Sarstedt, 2014).

During the process of adjusting the measurement model, four indicators were excluded from the work engagement construct because they had factor loadings lower than 0.70, the minimum threshold considered acceptable for indicators in reflective models (Hair *et al.*, 2014). While the removal of low-loading items might narrow the empirical scope, research indicates that parsimonious versions of the scale often maintain psychometric robustness (Schaufeli, Bakker, & Salanova, 2006; Carmona-Halty, Schaufeli, & Salanova, 2019). After this refinement, all remaining indicators presented adequate factor loadings, ensuring the quality of the model.

Discriminant validity was evaluated based on the Fornell and Larcker (1981) criterion, according to which the square root of the VME of each construct (indicated in bold in the matrix) should be higher than the correlations with other constructs. In addition, the Heterotrait-Monotrait ratio (HTMT) criterion was added, which indicates that the values obtained must be less than 0.85 for conceptually different constructs (Franke & Sarstedt, 2019). The results confirmed the adequacy of the constructs for the theoretical model, as shown in Table 1.

We verified the variance of the common method by applying Harman's single factor test (Podsakoff & Organ, 1986) on the 16 items and extracted four components with an eigenvalue greater than 1.0. The variance extracted from the first component was 38.420%, lower than the minimum of 50%. Therefore, we found that the common method bias does not represent a problem in this study.

The evaluation of the structural model aimed to verify the significance and strength of the hypothetical relationships proposed between the constructs of the theoretical model. For this,

Table 1. Measurement model results

Dimensions	Workplace distraction	Work engagement	Professional performance	Technostress
Workplace Distraction	0.790	0.778	0.459	0.675
Work Engagement	−0.650	0.780	0.442	0.385
Professional Performance	−0.391	0.411	0.852	0.333
Technostress	0.557	−0.340	−0.288	0.830
C.R.	0.812	0.856	0.889	0.851
A.V.E.	0.624	0.609	0.727	0.689
R ²	0.550	0.116	0.196	

Note(s): $n = 364$; Assessment of discriminant validity: Fornell–Larcker criterion (below main diagonal) and HTMT (above main diagonal)

the coefficients of determination (R^2), path coefficients (path *coefficients*), and values of statistical significance of the relationships were analyzed.

The R^2 values were interpreted according to the guidelines of [Cohen \(1988\)](#), in which values higher than 0.13 and 0.26 indicate effects of medium and high magnitudes, respectively. The f^2 effect sizes ranged from 0.033 to 0.532, indicating small-to large-magnitude effects according to [Cohen’s \(1988\)](#) guidelines. In the present study, two of the constructs presented values within these parameters, indicating the model’s good explanatory power in relation to the dependent variables.

The hypotheses were validated using the bootstrapping technique, with resampling of 5,000 subsamples, as recommended by [Hair et al. \(2014\)](#). The base sample consisted of 364 cases and resampling was done with replacement. The standardized coefficients and t -values are presented in [Table 2](#). Relationships with t -values >1.96 were considered statistically significant at the 5% level ($p < 0.05$), which lends empirical support to the respective hypotheses.

In addition, the values of the Variance Inflation Factor (VIF) were verified to control multicollinearity between the constructs. All VIF remained below the threshold of 5, indicating the absence of collinearity-related problems ([Hair et al., 2014](#)).

The final model, with validated paths and respective coefficients, is shown in [Figure 2](#).

The first hypothesis, which examined the influence of workplace distractions on professional performance, was confirmed. The results indicate that workplace distraction negatively impacts workers’ performance, corroborating [Orhan et al. \(2021\)](#), who emphasized that managing multiple digital communications simultaneously impairs cognitive self-regulation and focus.

[Hypothesis 2](#) was also confirmed, indicating that work engagement positively influences professional performance. Engaged employees demonstrate higher levels of dedication and absorption, which translates into more effective outcomes, supporting prior findings ([Moreira et al., 2022](#); [Schaufeli et al., 2002](#)).

Table 2. Structural model coefficients: between constructs

Paths between constructs	Average	D.P.	p -value	f^2	VIF
Workplace Distraction → Professional Performance	−0.221	0.097	0.027	0.033	1.730
Work Engagement → Workplace Distraction	−0.521	0.041	0.000	0.532	1.131
Work Engagement → Professional Performance	0.268	0.102	0.008	0.053	1.730
Technostress → Workplace Distraction	0.380	0.045	0.000	0.284	1.131
Technostress → Work Engagement	−0.343	0.050	0.000	0.131	1.000

Note(s): $n = 364$

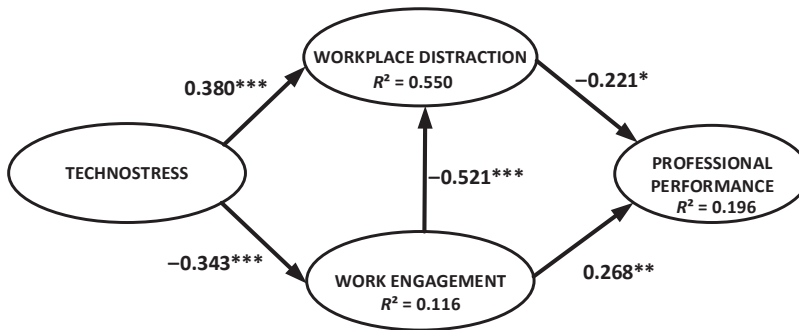


Figure 2. Complete model results. **Notes:** $n = 364$. *** p -value <0.001 ; ** p -value <0.01 ; * p -value ≤ 0.05

Hypothesis 3 was confirmed, showing that work engagement negatively influenced workplace distractions. Engaged individuals tend to maintain a higher focus and are less susceptible to attentional fragmentation, reinforcing prior evidence (Cappellozza *et al.*, 2017).

Hypotheses 4 and 5 were also confirmed, indicating that technostress increases workplace distraction while reducing work engagement. These findings reinforce prior research showing that technological demands generate cognitive overload, emotional exhaustion, and reduced motivation (Tarafdar *et al.*, 2011; Wang, Shu, & Tu, 2008). From a theoretical perspective, technostress acts as a job demand that impairs employees' ability to maintain their focus and psychological investment in their tasks.

The relatively low R^2 value for work engagement (11.6%) suggests that technostress alone does not fully explain variations in engagement levels. From the perspective of the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007), engagement is more strongly influenced by job resources, such as perceived organizational support, autonomy, and leadership. Therefore, while technostress plays a relevant role, it is insufficient as the sole predictor of engagement.

These findings extend prior theoretical frameworks (Brod, 1984; Tarafdar *et al.*, 2019; Kumar, 2024) by demonstrating that technostress undermines employees' capacity to remain engaged and productive in digitalized workplaces. Additionally, they highlighted the dual role of technostress as a mechanism that simultaneously reduces engagement and increases distraction, ultimately impairing professional performance.

From a managerial standpoint, the findings underscore the importance of organizational interventions aimed at mitigating technostress to foster higher engagement levels and reduce distractions in the workplace. Strategies such as digital detox initiatives, training for effective technology use, and supportive leadership can buffer these adverse effects (Ayyagari *et al.*, 2011; Ragu-Nathan, Tarafdar, Ragu-Nathan, & Tu, 2008).

At the societal and policy levels, these results hold particular significance in Brazil, where rapid digital transformation intersects with occupational health concerns. Policymakers should consider frameworks that encourage balanced technology use, protect worker well-being, and promote sustainable digital workplaces (Sanchez-Segura, Dugarte-Peña, Medina-Dominguez, Amescua Seco, & Menchen Viso, 2023).

Table 3 presents a summary of the hypothesis tests conducted in this study.

8. Final considerations

This study successfully investigated how technostress, work engagement, and workplace distraction influence professional performance, confirming all five hypotheses using data from 364 respondents.

Table 3. – Synthesis of hypothesis tests

Hypothesis	Description	Result
H1	Workplace Distraction negatively influences Professional Performance	Confirmed
H2	Work Engagement positively influences Professional Performance	Confirmed
H3	Work Engagement negatively influences Workplace Distraction	Confirmed
H4	Technostress positively influences Workplace Distraction	Confirmed
H5	Technostress negatively influences Work Engagement	Confirmed

The primary conclusion is that work engagement positively affects professional performance, indicating that motivated and involved employees perform better than their counterparts. This underscores the importance of organizations fostering engagement through safe, inclusive, and supportive work environments that align employees with organizational values and purpose. Strategies such as individual development plans and recognition programs are recommended to sustain high levels of engagement and productivity.

Furthermore, increased work engagement reduces workplace distractions because engaged employees maintain greater focus on work activities. Thus, organizational initiatives promoting engagement, such as professional development opportunities and positive work climates, can effectively minimize distractions and enhance productivity.

Technostress, resulting from excessive or ineffective technology use, diminishes work engagement by overwhelming employees and reducing their motivation. To counteract this, companies should balance technology deployment, streamline digital tools for usability, and encourage regular breaks for their employees. Policies discouraging work-related activities outside office hours can alleviate the pressure of constant connectivity, thereby improving employee well-being and performance.

This study contributes to the literature by extending the JD-R model to the context of technostress, demonstrating that technological demands simultaneously reduce engagement and increase distractions. The findings also provide empirical evidence from an emerging economy, enriching the global debate on digital work and employee well-being.

Managerially, it informs targeted interventions to enhance employee focus and productivity.

From a public policy perspective, the findings are particularly relevant in the Brazilian context, where recent regulatory frameworks, such as the update of regulatory standard NR-1 ([Ministério do Trabalho e Emprego, 2024](#)), emphasize the importance of managing psychosocial risks at the workplace. The results highlight the need for policies that regulate digital work demands, encourage disconnection practices, and promote mental health in technology-intensive environments.

However, this study has limitations that cannot be disregarded. For example, there may be limitations related to controls not carried out in data collection, such as the intensity of the use of technology for the development of professional activities. In addition, controlling for business contexts would be another possibility for future research, as it would provide a more comprehensive understanding of the factors that impact work dynamics in different sectors and organizational environments.

Finally, another control variable that can be analyzed and that can bring interesting results is the occupation of leadership positions, as the hierarchical position could hypothetically influence the variables analyzed in this study.

Supplementary material

The supplementary material for this article can be found online.

References

- AFL-CIO Department of Safety and Health (2006). Work re-organization: A hazard to workers' health and safety. Available from: http://assets.usw.org/resources/hse/help/work_organization_factsheet_final.pdf
- Arik, M., & Graves, B. G. (2023). Work distraction: Employer costs of preventable joint disorders and implications for business. *Global Journal of Business Disciplines*, 7(1), 77–100.
- Ayyagari, R., Grover, V., & Purvis, R. (2011). Technostress: Technological antecedents and implications. *MIS Quarterly*, 35(4), 831–858. doi: [10.2307/41409963](https://doi.org/10.2307/41409963).
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309–328. doi: [10.1108/02683940710733115](https://doi.org/10.1108/02683940710733115).
- Bakker, A. B., & Leiter, M. P. (2010). *Work engagement: A handbook of essential theory and research*. Hove: Psychology Press. doi: [10.4324/9780203853047](https://doi.org/10.4324/9780203853047).
- Barros, N. M. G. C., & Honório, L. C. (2015). Riscos de adoecimento no trabalho de médicos e enfermeiros em um hospital regional mato-grossense. *Revista de Gestão*, 22(1), 21–39. doi: [10.5700/rege549](https://doi.org/10.5700/rege549). Available from: <https://revistas.usp.br/rege/article/view/102621>
- Beno, M., & Caganova, D. (2024). Navigating the dual role of smartphones in e-work: Enhancing productivity while managing distractions. *Journal of Eastern European and Central Asian Research*, 11(2), 263–271. doi: [10.15549/jecar.v11i2.1475](https://doi.org/10.15549/jecar.v11i2.1475).
- Bernburg, M., Tell, A., Groneberg, D., & Mache, S. (2024). Digital stressors and resources perceived by emergency physicians and associations to their digital stress perception, mental health, job satisfaction and work engagement. *BMC Emergency Medicine*, 24(1), 31. doi: [10.1186/s12873-024-00950-x](https://doi.org/10.1186/s12873-024-00950-x).
- Bialowolski, P., McNeely, E., VanderWeele, T. J., & Weziak-Bialowolska, D. (2020). Ill health and distraction at work: Costs and drivers for productivity loss. *PLoS One*, 15(3), e0230562. doi: [10.1371/journal.pone.0230562](https://doi.org/10.1371/journal.pone.0230562).
- Bilderback, S. (2024). I will see you in the summer: Assessing the cognitive impact of social media on employee engagement. *Strategic HR Review*, 23(6), 206–210. doi: [10.1108/shr-05-2024-0033](https://doi.org/10.1108/shr-05-2024-0033).
- Borle, P., Reichel, K., Niebuhr, F., & Voelter-Mahlknecht, S. (2021). How are techno-stressors associated with mental health and work outcomes? A systematic review of occupational exposure to information and communication technologies within the technostress model. *International Journal of Environmental Research and Public Health*, 18(16), 8673. doi: [10.3390/ijerph18168673](https://doi.org/10.3390/ijerph18168673).
- Brod, C. (1984). *Technostress: The human cost of the computer revolution*. Reading, MA: Addison-Wesley.
- Cappellozza, A., Moraes, G. H. S. M. D., & Muniz, L. M. (2017). Personal use of technologies at work: Motivators and effects on professional distraction. *Revista de Administração Contemporânea*, 21(5), 605–626. doi: [10.1590/1982-7849rac2017160145](https://doi.org/10.1590/1982-7849rac2017160145).
- Carmona-Halty, M. A., Schaufeli, W. B., & Salanova, M. (2019). The utrecht work engagement scale for students (UWES–9S): Factorial validity, reliability, and measurement invariance in a Chilean sample of undergraduate university students. *Frontiers in Psychology*, 10, 1017. doi: [10.3389/fpsyg.2019.01017](https://doi.org/10.3389/fpsyg.2019.01017).
- Carvalho, O. W. F., & D'Angelo, M. J. (2021). Technological stress and the intention to stay in organizations: Do the quality of life and work-home conflict mediate this relationship? *Contextus: Contemporary Journal of Economics and Management*, 19(12), 176–196. doi: [10.19094/contextus.2021.62600](https://doi.org/10.19094/contextus.2021.62600).
- Cavazotte, F. S. C. N., Lemos, A. H. C., & Brollo, M. S. (2014). Working more?: A study of corporate smartphones' users. *Organizations and Society*, 21(68), 769–87. doi: [10.1590/S1984-92302014000100002](https://doi.org/10.1590/S1984-92302014000100002).
- Chen, A., & Karahanna, E. (2018). Life interrupted: The effects of technology-mediated work interruptions on work and nonwork outcomes. *MIS Quarterly*, 42(4), 1023–1042. doi: [10.25300/MISQ/2018/13631](https://doi.org/10.25300/MISQ/2018/13631).

- Chen, L., Nath, R., & Tang, Z. (2019). Understanding the determinants of digital distraction: An automatic thinking behavior perspective. *Computers in Human Behavior*, 104, 43. doi: [10.1016/j.chb.2019.106195](https://doi.org/10.1016/j.chb.2019.106195).
- Cione, A. S. S. (2018). Relationships between burnout, stress and engagement and well-being at work. [Master's Dissertation]. Pontifical Catholic University of Campinas. Available from: <https://repositorio.sis.puc-campinas.edu.br/handle/123456789/16066>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Dapper, A. P., & Moreira Sobrinho, J. B. (2023). Mental health at work: Aspects that affect the individual in the workplace. *Revista Foco (Interdisciplinary Studies Journal)*, 16(12). doi: [10.54751/revistafoco.v16n12-048](https://doi.org/10.54751/revistafoco.v16n12-048).
- Day, A., Paquet, S., Scott, N., & Hambley, L. (2012). Perceived Information and Communication Technology (ICT) demands on employee outcomes. *Journal of Occupational Health Psychology*, 17(4), 473–491. doi: [10.1037/a0029837](https://doi.org/10.1037/a0029837).
- De Paula, R. T. V., & Cappellozza, A. (2021). Relationships between technostress and neuroticism in burnout syndrome. *Organizations in Context*, 17(33), 117–135.
- Divya, & Narwal, M. (2023). Digital distractions in the workplace: Exploring the impact of cyberloafing on employee behavior and innovation. *Virtual Economy*, 6(4), 7–24. doi: [10.34021/ve.2023.06.04\(1\)](https://doi.org/10.34021/ve.2023.06.04(1)).
- Dragano, N., & Lunau, T. (2020). Technostress at work and mental health: Concepts and research results. *Current Opinion in Psychiatry*, 33(4), 407–413. doi: [10.1097/ycp.0000000000000613](https://doi.org/10.1097/ycp.0000000000000613).
- Farivar, F., Esmaeelinezhad, O., & Richardson, J. (2022). Digital intrusions or distraction at work and work-Life conflict. *New Technology, Work and Employment*, 37(3), 363–380. doi: [10.1111/ntwe.12235](https://doi.org/10.1111/ntwe.12235).
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149–1160. doi: [10.3758/brm.41.4.1149](https://doi.org/10.3758/brm.41.4.1149).
- Fong, T. C. T., & Ng, S. M. (2012). Measuring engagement at work: Validation of the Chinese version of the Utrecht Work Engagement Scale. *International Journal of Behavioral Medicine*, 19(3), 391–397. doi: [10.1007/s12529-011-9173-6](https://doi.org/10.1007/s12529-011-9173-6).
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. doi: [10.2307/3151312](https://doi.org/10.2307/3151312).
- Franke, G., & Sarstedt, M. (2019). Heuristics versus statistics in discriminant validity testing: A comparison of four procedures. *Internet Research*, 29(3), 430–447. doi: [10.1108/intr-12-2017-0515](https://doi.org/10.1108/intr-12-2017-0515).
- Gabardo-Martins, L., Louro, E., Rodrigues, F., Brazil, F., Vieira, B., Alves, L., . . . Júnior, C. (2023). Ob resources and job results: The role of productive organizational energy. *Psychology: Organizations and Work Journal*, 23(3). doi: [10.5935/rpot/2023.3.24051](https://doi.org/10.5935/rpot/2023.3.24051).
- Giudice da Silva Cezar, B., & Maçada, A. C. G. (2021). Data literacy and the cognitive challenges of a data-rich business environment: An analysis of perceived data overload, technostress and their relationship to individual performance. *Aslib Journal of Information Management*, 73(5), 618–638. doi: [10.1108/ajim-01-2021-0015](https://doi.org/10.1108/ajim-01-2021-0015).
- Gorgievski, M. J., Bakker, A. B., & Schaufeli, W. B. (2010). Work engagement and workaholism: Comparing the self-employed and salaried employees. *Journal of Positive Psychology*, 5(1), 83–96. doi: [10.1080/17439760903509606](https://doi.org/10.1080/17439760903509606).
- Gruman, J. A., & Saks, A. M. (2011). Performance management and employee engagement. *Human Resource Management Review*, 21(1), 123–136. doi: [10.1016/j.hrmr.2010.09.004](https://doi.org/10.1016/j.hrmr.2010.09.004).
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (2005). *Multivariate data analysis* (5th ed.). Porto Alegre: Bookman.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–151. doi: [10.2753/mtp1069-6679190202](https://doi.org/10.2753/mtp1069-6679190202).

- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial Least squares structural equation modeling (PLS-SEM)*. Thousand Oaks: Sage Publications.
- Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87(2), 268–79. doi: [10.1037/0021-9010.87.2.268](https://doi.org/10.1037/0021-9010.87.2.268).
- Harunavamwe, M., Ward, C., & Marange, T. (2025). Influence of technostress on work engagement and workplace flourishing: The mediating role of perceived organizational support. *Cogent Psychology*, 12(1), 1–18. doi: [10.1080/23311908.2025.2561437](https://doi.org/10.1080/23311908.2025.2561437).
- Internet World Stats (2023). Internet usage and population in South America. Available from: <https://www.internetworldstats.com/stats.htm>
- Internet World Stats (2024). Internet usage statistics. *The Internet Big Picture*. Available from: <https://www.internetworldstats.com/stats15.htm#south>
- Iqbal, J., Asghar, A., & Asghar, M. (2022). Effect of despotic leadership on employee turnover intention: Mediating toxic workplace environment and cognitive distraction in academic institutions. *Behavioral Sciences*, 12(5), 125. doi: [10.3390/bs12050125](https://doi.org/10.3390/bs12050125).
- Juárez, M. A., Aguiar Pérez, J. M., Del Pozo Velázquez, J., Alonso Felipe, M., Rozada Raneros, S., & Barrio Conde, M. (2022). From digital distraction to digital motivation: Utopia or reality. In E. J. Flanigan, & K. HeeYoung (Eds), *Digital Distractions in the College Classroom* (pp. 205–222). IGI Global.
- Karr-Wisniewski, P., & Lu, Y. (2010). When more is too much: Operationalizing technology overload and exploring its impact on knowledge worker productivity. *Computers in Human Behavior*, 26(5), 1061–1072. doi: [10.1016/j.chb.2010.03.008](https://doi.org/10.1016/j.chb.2010.03.008).
- Kirk-Brown, A., & Dijk, P. V. (2011). Safe to engage: Chronic illness and organizational citizenship behaviours at work. *International Journal of Disability Management*, 6(1), 1–9. doi: [10.1375/jdmr.6.1.1](https://doi.org/10.1375/jdmr.6.1.1).
- Kobernovicz, M., & Stefano, S. R. (2020). Engagement at work: Na analysis of state public employee engagement of a higher education institution. *Revista de Carreiras e Pessoas*, 10(1). doi: [10.20503/recape.v10i1.44284](https://doi.org/10.20503/recape.v10i1.44284).
- Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., de Vet, H. C., & Van der Beek, A. J. (2014). Construct validity of the individual work performance questionnaire. *Journal of Occupational and Environmental Medicine*, 56(3), 331–337. doi: [10.1097/JOM.0000000000000113](https://doi.org/10.1097/JOM.0000000000000113).
- Kumar, P. (2024). Technostress: A comprehensive literature review on dimensions, impacts, and management strategies. *Computers in Human Behavior Reports*, 16, 100475. doi: [10.1016/j.chbr.2024.100475](https://doi.org/10.1016/j.chbr.2024.100475).
- Mazid, A., Samantaray, N. N., & Moirangthem, S. (2025). How deep work drives student engagement amid smartphone distraction and attention control: A mediation-moderation analysis. *Psychological Reports*, 0(0). doi: [10.1177/00332941251377396](https://doi.org/10.1177/00332941251377396).
- Mazmanian, M., Orlikowski, W. J., & Yates, J. (2013). The autonomy paradox: The implications of mobile email devices for knowledge professionals. *Organization Science*, 24(5), 1337–57. doi: [10.1287/orsc.1120.0806](https://doi.org/10.1287/orsc.1120.0806).
- Ministério do Trabalho e Emprego (2024). Portaria MTE nº 1.419. Available from: <https://www.gov.br/trabalho-e-emprego/pt-br/assuntos/inspecao-do-trabalho/seguranca-e-saude-no-trabalho/sst-portarias/2024/portaria-mte-no-1-419-nr-01-gro-nova-redacao.pdf>
- Molino, M., Ingusci, E., Signore, F., Manuti, A., Giancaspro, M. L., Russo, V., ... Cortese, C. G. (2020). Wellbeing costs of technology use during COVID-19 remote working: An investigation using the Italian translation of the technostress creators scale. *Sustainability*, 12(15), 5911. doi: [10.3390/su12155911](https://doi.org/10.3390/su12155911).
- Moreira, M. L. R., Rodrigues, R. A. P., de Mattos, C. A. C., & de Souza Costa, C. E. A. (2022). Work engagement and professional performance: A brief discussion. *Free Journal of Sustainability and Entrepreneurship*, 7(4), 157–175.

- Orhan, M. A., Castellano, S., Khelladi, I., Marinelli, L., & Monge, F. (2021). Technology distraction at work. Impacts on self-regulation and work engagement. *Journal of Business Research*, 126, 341–349. doi: [10.1016/j.jbusres.2020.12.048](https://doi.org/10.1016/j.jbusres.2020.12.048).
- Paridim, V. I., Pinochet, L. H. C., & Souza, C. A. de. (2024). Analysis of antecedent factors that lead to cyberloafing and deviant behavior in response to the announcement of formal controls. *Organizations and Society*, 31(108), 117–148. doi: [10.1590/1984-92302024v31n0004EN](https://doi.org/10.1590/1984-92302024v31n0004EN).
- Pereira, L. Z., Braga, C. D., & Marques, A. L. (2014). Stress at work: A challenge for managers of Brazilian organizations. *Revista de Gestão*, 21(3), 401–413. Available from: <https://revistas.usp.br/rege/article/view/99945>
- Pinnow, D., Causey-Upton, R., & Meulenbroek, P. (2022). Navigating the impact of workplace distractions for persons with TBI: A qualitative descriptive study. *Scientific Reports*, 12(1), 15881. doi: [10.1038/s41598-022-20083-0](https://doi.org/10.1038/s41598-022-20083-0).
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 11(4), 531–544. doi: [10.1177/014920638601200408](https://doi.org/10.1177/014920638601200408).
- Ragu-Nathan, T. S., Tarafdar, M., Ragu-Nathan, B. S., & Tu, Q. (2008). The consequences of technostress for end users in organizations: Conceptual development and empirical validation. *Information Systems Research*, 19(4), 417–433. doi: [10.1287/isre.1070.0165](https://doi.org/10.1287/isre.1070.0165).
- Rasool, S., Wang, M., Tang, M., Saeed, A., & Iqbal, J. (2021). How toxic workplace environment effects the employee engagement: The mediating role of organizational support and employee wellbeing. *International Journal of Environmental Research and Public Health*, 18(5), 2294. doi: [10.3390/ijerph18052294](https://doi.org/10.3390/ijerph18052294).
- Ribeiro, D. M., Dias, J. J. L. Jr, & da Silva, F. Q. (2022). Adaptive performance scale: Adaptation and validity evidence with software engineers. *Psychology Journal: Organizations and Work*, 22(2), 2011–2019. doi: [10.5935/rpot/2022.2.21867](https://doi.org/10.5935/rpot/2022.2.21867).
- Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53(3), 617–63. doi: [10.5465/AMJ.2010.51468988](https://doi.org/10.5465/AMJ.2010.51468988).
- Ringle, C. M., Wende, S., & Becker, J.-M. (2024). *SmartPLS 4*. Bönningstedt: SmartPLS. Available from: <https://www.smartpls.com>
- Rosa, P. J., Miranda, I. P., & Pascoal, P. M. (2025). Uncovering latent profiles of ICT users and its relation to technostress and mental health in an adult sample: Contributions of a transdiagnostic approach. *International Journal of Human-Computer Interaction*, 41(17), 10966–10979. doi: [10.1080/10447318.2024.2439637](https://doi.org/10.1080/10447318.2024.2439637).
- Saidin, K., Wan, P., & Halim, W. F. S. W. A. (2024). A Synthesis towards the construct of job performance: Dimensions and theoretical approaches. *Pakistan Journal of Life and Social Sciences (PJLSS)*, 22(2), 300–312. doi: [10.57239/PJLSS-2024-22.2.0022](https://doi.org/10.57239/PJLSS-2024-22.2.0022).
- Sanchez-Segura, M.-I., Dugarte-Peña, G.-L., Medina-Dominguez, F., Amescua Seco, A., & Menchen Viso, R. (2023). Digital transformation in organizational health and safety to mitigate burnout syndrome. *Frontiers in Public Health*, 11, 1080620. doi: [10.3389/fpubh.2023.1080620](https://doi.org/10.3389/fpubh.2023.1080620).
- Sandall, H., & Mourão, L. (2023). Individual job performance: Propositions for personalized measurement and comprehensive diagnosis. *RAM. Mackenzie Management Review*, 24. doi: [10.1590/1678-6971/eRAMG230023.pt](https://doi.org/10.1590/1678-6971/eRAMG230023.pt).
- Santos, A. C., & Beuren, I. M. (2021). Effects of behavioral factors on the performance of the task of forensic accounting experts. *Journal of Education and Research in Accounting (REPeC)*, 15(2). doi: [10.17524/repec.v15i2.2841](https://doi.org/10.17524/repec.v15i2.2841).
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement*, 66(4), 701–716. doi: [10.1177/0013164405282471](https://doi.org/10.1177/0013164405282471).
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3(1), 71–92. doi:[10.1023/A:1015630930326](https://doi.org/10.1023/A:1015630930326).

- Shikiar, R., Halpern, M. T., Rentz, A. M., & Khan, Z. M. (2004). Development of the health and work questionnaire (HWQ): An instrument for assessing workplace productivity in relation to worker health. *Work*, 22(3), 219–229. doi: [10.3233/wor-2004-00359](https://doi.org/10.3233/wor-2004-00359).
- Siqueira, M. M. M., Orengo, V., & Peiró, J. M. (2014). Engajamento no trabalho. In M. M. M. Siqueira (Ed.), *New Measures of Organizational Behavior: Diagnostic and Management Tools*. Artmed.
- Spagnoli, P., Molino, M., Molinaro, D., Giancaspro, M. L., Manuti, A., & Ghislieri, C. (2020). Workaholism and technostress during the COVID-19 emergency: The crucial role of the leaders on remote working. *Frontiers in Psychology*, 11, 620310. doi: [10.3389/fpsyg.2020.620310](https://doi.org/10.3389/fpsyg.2020.620310).
- Tarafdar, M., Tu, Q., Ragu-Nathan, B. S., & Ragu-Nathan, T. S. (2011). Crossing to the dark side: Examining creators, outcomes, and inhibitors of technostress. *Communications of the ACM*, 54(9), 113–120. doi: [10.1145/1995376.1995403](https://doi.org/10.1145/1995376.1995403).
- Tarafdar, M., Cooper, C. L., & Stich, J. F. (2019). The technostress trifecta - techno eustress, techno distress and design: Theoretical directions and an agenda for research. *Information Systems Journal*, 29(1), 6–42. doi: [10.1111/isj.12169/complete](https://doi.org/10.1111/isj.12169/complete).
- Wang, K., Shu, Q., & Tu, Q. (2008). Technostress under different organizational environments: An empirical investigation. *Computers in Human Behavior*, 24(6), 3002–3013. doi: [10.1016/j.chb.2008.05.007](https://doi.org/10.1016/j.chb.2008.05.007).
- Zhu, Z., Eli, B., Chen, Y., & Liu, Z. (2023). Symptom structure of posttraumatic stress disorder in workplace trauma: A 'distraction-avoidance' pattern. *Journal of Clinical Psychology*, 80(2), 490–502. doi: [10.1002/jclp.23626](https://doi.org/10.1002/jclp.23626).

Further reading

- Islam, M. A., & Xin, B. (2025). Emerging trends in mental health and work performance research: A bibliometric analysis and future research agenda. *Mental Health and Social Inclusion, ahead-of-print*(ahead-of print), 800–814. doi: [10.1108/MHSI-11-2024-0201](https://doi.org/10.1108/MHSI-11-2024-0201).
- Khan, A., & Mahapatra, M. (2017). The impact of social media of technostress inhibitor on employee productivity. *Social Media and Social Networks*, 4(1), 113–116. doi: [10.1145/3084381.3084407](https://doi.org/10.1145/3084381.3084407).
- Nelson, D. L., & Simmons, B. L. (2013). Health psychology and work stress: A more positive approach. In J. C. Quick (Ed.), *Occupational Health Psychology* (2nd ed.). American Psychological Association. doi: [10.1037/10474-005](https://doi.org/10.1037/10474-005).
- Rosado, M., Suárez, L., Zevallos, G., & Espinosa-Cristia, J. (2023). Technostress at work during the Covid-19 lockdown phase (2020–2021): A systematic review of the literature. *Frontiers in Psychology*, 14. doi: [10.3389/fpsyg.2023.1173425](https://doi.org/10.3389/fpsyg.2023.1173425).
- Salanova, M., Llorens, S., Cifre, E., & Nogareda, C. (2007). The technoestrés: concepto, medida e intervención psicosocial. In *Nota Técnica de Prevención*, 730. Barcelona: Centro Nacional de Condiciones de Trabajo, Instituto Nacional de Seguridad e Higiene en el Trabajo. Available from: <https://www.want.uji.es/download/el-tecnoestres-concepto-medida-e-intervencion-psicosocial/>
- Salanova, M., Llorens, S., & Cifre, E. (2013). The dark side of technologies: Technostress among users of information and communication technologies. *International Journal of Psychology*, 48(3), 422–436. doi: [10.1080/00207594.2012.680460](https://doi.org/10.1080/00207594.2012.680460).

Corresponding author

Alexandre Cappellozza can be contacted at: alexandre.cappellozza@mackenzie.br

Associate editor: Luis Hernan Contreras Pinochet