

Digital anxiety: the psychological toll of constant technological change in the workplace

Mirela Andreea Tudose

Affiliation: National University of Science and Technology POLITEHNICA, Bucharest, Romania

ORCID ID: <https://orcid.org/0009-0005-8145-8682>

Abstract. *This paper aims to analyze the phenomenon of digital anxiety – which is a psychological state and is characterized by the fear of not being up to date with technological evolution, which produces stress and, in more severe cases, burnout or other psycho-emotional problems. This paper represents a comprehensive analysis of the specialized literature on the phenomenon of digital anxiety, especially regarding key stressors resulting from digital transformation and the main interventions designed to mitigate their impact. Moreover, this study attempts to build a pertinent analysis of psychologically sustainable digital adaptation methods. The paper is a useful resource for general managers, business people, HR specialists and other decision-makers to improve workforce capacity – and therefore overall organizational performance – by raising awareness of the phenomenon of digital anxiety and implementing measures to mitigate it. This research is also valuable for academics studying workplace psychology and technological adaptation, providing new insights into the emotional and cognitive aspects of digital change. By introducing and addressing the concept of digital anxiety as a crucial factor in the evolution of workplace stress, the research offers a new perspective on employee well-being in the digital age. This study does not refer to digital transformation as a certain and inevitable progress, but highlights the psychological patterns it creates among employees. In addition, this is a cross-sectional study focused on the mapping of already successfully tested digital anxiety mitigation techniques and examples.*

Keywords: Digital Anxiety, Workplace Stress, Human-Centered Digitalization, Employee Well-Being, Cognitive Overload.

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Introduction

In the context of accelerating technological progress and increasing demands for digital means in the workplace, a new form of occupational stress has emerged – digital anxiety. While digital tools promise improved efficiency, agility and innovation, they also create substantial psychological pressure on employees, especially when adapting to new work paradigms seems overwhelming or unsustainable.

This paper addresses the growing tension between the pace of digital innovation and the ability of employees to adapt without compromising their mental health. While much research has focused on the technical and strategic aspects of digital transformation, there is a pressing need to examine the human experience behind it—particularly the cognitive and emotional responses it triggers within organizations. As such, the present study aims to highlight digital anxiety not just as a side effect of innovation, but as a critical organizational challenge that deserves dedicated attention in order to maintain organizational balance and increase organizational performance. Through this approach, organizations can ensure that technological innovation becomes a catalyst for its development, rather than a source of tension or instability.

The main research question addressed in this paper is focused on understanding whether personalized and preventive interventions implemented at the organizational level can effectively reduce the psychological impact of continuous technological changes in the workplace, is:

How do organizational interventions influence the levels of digital stress and anxiety among employees?

In order to answer this, the paper is guided by the following hypotheses:

H1: Personalized organizational interventions, tailored to employee needs, significantly reduce levels of digital stress and anxiety in the workplace.

H2: Proactive preventive organizational interventions have a significant positive impact on reducing digital stress and anxiety among employees.

Therefore, by integrating employee-centered and organizational perspectives, the paper contributes to the conceptual consolidation of the phenomenon of digital anxiety and to the identification of sustainable coping strategies in the new digital context.

Literature review

Understanding the digital anxiety concept

Digital anxiety is a fairly new term, but which arouses an increasingly strong interest among researchers and specialists considering the impact that this phenomenon has on the well-being, health and efficiency of employees, on the one hand, as well as other personal and organizational problems that can arise from it. The alarming trends increasingly reported by researchers show the need to understand the negative psychological effects of digital transformation, with a focus on artificial intelligence, on employees. In this regard, recent studies discuss the fact that a significant percentage of employees openly declare their anxiety about the risk that artificial intelligence (AI) will lead to the loss of their jobs [1].

Considering that the digital transformation is often associated with uncertainty and insecurity, digital anxiety can be defined as a general feeling of tension, discomfort or insecurity associated with the emergence and implementation of digital technologies. Moreover, this form of anxiety is not necessarily related to a specific technology, but reflects broader emotional reactions generated by the transformations generated by the digitization process on the way of accessing, processing and communicating information, as well as on the way of working. In this sense, digital anxiety reflects, in addition to the impact of new technologies, also the degree of their spread and omnipresence in everyday life, contributing to a state of uncertainty or overwhelm in the face of continuous change [2]. Moreover, existing studies on technostress extensively examined the negative impact as result of the relationship between technostress and the productivity of workers, especially teleworkers, in companies [3], anxiety being explained as the main symptom of technostress [4]. The effects of technostress, such as techno-technical overload, techno-technical invasion, and techno-technical complexity, have been widely identified as major contributing factors to digital anxiety [5].

An important concept is cognitive overload, which refers to the mental resources required to complete a task [6]. In the digital age, this problem is increasingly pressing, and organizations are faced with the need to manage the increasingly high cognitive load among employees [7]. Therefore, business management should include aspects of cognitive load management to ensure organizational performance, especially in cases involving activities with high mental load [8].

Specialized studies that have investigated the phenomenon of digital anxiety – either directly or as part of wider research on technostress or well-being at work - suggest that anxiety plays multiple roles in relation to the so-called negative unintended effects of digitalisation, which may vary depending on the context and theoretical framework applied. Anxiety can function as an antecedent, a mediator, or an outcome. As illustrated in Table 1 [9], these relationships highlight the complex and dynamic nature of digital anxiety, which may evolve and change over time based on individual characteristics, organizational contexts and technological variables. A comprehensive understanding of these roles is essential for developing effective interventions to alleviate anxiety in increasingly digitalized environments.

Table 1: Ways in which anxiety manifested in relation to digital workplace technologies

Types of anxiety	Key findings and gaps
Generalised anxiety	General state anxiety may mediate between the technology and negative effects but further research is needed.
Computer or techno anxiety	Anxiety specifically relating to use of computers or technology more generally is found to be related to negative outcomes for individuals including stress. The levers by which such anxieties may be reduced warrants further investigation.
Information anxiety	Information overload can lead to information anxiety for some individuals, though how and for whom needs further interrogation
Fear of missing out (FoMO)	Anxiety can also relate to separation from the technology in some form, especially where individuals' experience emotional attachment to it. Research

	is so far sparse in this area.
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Source: Marsh, Vallejos, & Spence, 2022

The main factors generating digital anxiety and mitigation interventions

Employees are increasingly feeling the pressures of integrating new technological tools into the workplace, in the context of rapid digital transformation. Therefore, the interest given to the phenomenon called digital anxiety is increasing. Among the main professional situations that favor experiencing digital anxiety among employees are information overload, the expectation of being constantly connected and the fear of not being able to keep up due to automation [10]. Also, the increasingly fluid boundaries between work and free time and the erosion of downtime are significant factors that lead to chronic fatigue and burnout [11]. In order to properly manage the digital transformation from the perspective of employee well-being and health, by reducing the negative effects, researchers and practitioners support specific interventions, such as digital literacy programs, mindfulness, transparent communication and inclusive digital culture within organizations [12]. Understanding the sources and dynamics of digital anxiety is critical to developing effective strategies to promote employee well-being and resilience – and thus performance – in technology-intensive environments.

The main digital stressors that employees are exposed to in the context of increasingly dynamic digital work environments can be classified according to their origin and nature into societal – generated by external pressures, such as the inappropriate pace of digital change and the expectation that employees are always connected; organizational – assuming concrete aspects related to the workplace, such as workload and support from management; and individual factors - digital skills and coping mechanisms of employees (see Table 2) [2].

Table 2: Triggers of digitalisation anxiety

Societal triggers	Organisational triggers	Individual triggers
<i>Consequences of digitalisation</i> – Lack of predictability – Job insecurity – Reduced amount of work – Social exclusion <i>Stressful digitalisation process</i> – Stressful initial phase of digitalisation – Challenge to keep up with developments <i>Surveillance</i> <i>Concerns about data usage</i> <i>Technologisation</i> – Dependency on technology – Robotisation of humans – Work routines controlled by machines	<i>Organisations' expectations</i> – Constant availability – Quick understanding of new processes – Taking part in trainings – Quick implementation of new technologies <i>Organisational structure</i> – Lack of organisational infrastructure – Lack of user-friendly, individually supportive IT systems – Inexperienced people in powerful positions <i>Technical issues</i> – Vulnerability to hacker attacks – Technical problems	<i>Personal development</i> – Lack of time for training – Internal pressure to understand new developments – Lack of technological affinity <i>Changes in work</i> – Increased speed of work – Loss of individual control <i>Individual communication problems</i>

Source: Pfaffinger et al., 2020

Regarding the interventions that can be designed and implemented to reduce the negative side effects of digital transformation, such as digital stress and anxiety, these actions are classified considering two significant dimensions: who implements them (whether it is the individual employee, the organizational management, or external support structures) and what generating factor the interventions address to be improved, as shown in Table 3 [2]. Analyzing interventions using the two aforementioned perspectives can be useful for management in identifying the most appropriate strategies for addressing factors generating digital stress and anxiety, as well as the people who should be responsible for them. Furthermore, this dual approach facilitates the adoption of specific interventions to

support employee well-being, resilience and performance, in order to ensure a smoother and sustainable transition of digital transformation within the organization.

Table 3: Overview of possible interventions against digitalisation anxiety

Initiator	Societal triggers	Organisational triggers	Individual triggers
Society/ Public	<i>Social exclusion</i> – Ensuring participation possibilities for digitalisation (especially for older people) – Offering public trainings or IT helpdesks – Offering public Wifi to facilitate internet access – Expanding the distribution of high-speed internet for mobile phones <i>Surveillance and data usage</i> – Prohibiting or restricting surveillance – Ensuring data security through legal regulations for data ownership – Establishing punishments in the case of violations <i>Job insecurity</i> – Introducing/fostering social welfare programs to provide security in the case of job loss <i>Consequences of digitalisation: New forms of work</i> – Ensuring humanity of new forms of work through corresponding legal regulations	<i>Organisational expectations</i> – Creating legal regulations to restrict blurring boundaries of work (CJEU decision about the necessity of tracking one's working hours even when working from home) <i>Technical issues</i> – Establishing a functioning infrastructure that allows organisations to be interconnected in a technically safe way	-
Organisation	<i>Surveillance and data usage</i> – Investing in IT security to ensure the safety of employees' data <i>Unpredictability of developments and stressful process</i> – Influencing and structuring introduction process of new technologies/applications in an employee-friendly way that takes into account possible anxiety triggers – Communication of planned	<i>Organisational expectations</i> – Organisational supports such as flexibility with regard to location and time of work – Clarifying expectations regarding employees' temporal availability – Ensuring compliance with work regulations (maximum hours of work per day, rest times, etc.) – Respecting ergonomic aspects of home office	<i>Personal development</i> – Offering trainings to support individual learning needs (taking into account employees' time constraints, reducing training time to an appropriate level) – Offering a competent helpdesk <i>Changes in work</i> – Establishing organisational supports to help employees cope with higher demands and increase their flexibility

	changes (What will change? When will it happen? What consequences will it have for employees?) <i>Consequences of digitalisation</i> – Development of new concepts of work – Providing formats to foster the development of innovative ideas, e.g. creating focus groups or providing a forum for ideas and offering incentives for employees to participate in organisational development	workspaces <i>Organisational structure</i> – Providing new technology and ensuring support for it – Offering a competent helpdesk – Offering leadership trainings – Making use of more flexible hierarchies <i>Technical issues</i> – Investing in IT security to avoid hacker attacks – Providing new technology, keeping it up to date, and ensuring support for it	
Teams	-	<i>Organisational expectations</i> – Establishing team rules on expectations regarding availability, etc	<i>Communication problems</i> – Establishing communication rules (e.g., Who needs to be included on cc? Who is expected to react to emails? When are different communication channels appropriate? What possible problems might arise when using indirect forms of communication?)
Individual	<i>Consequences of digitalisation</i> – Participation in organisational programs to foster innovation and create new business opportunities <i>Stressful process</i> – Relying on the adaptation effect (sometimes it is necessary to just keep persevering)	<i>Organisational expectations</i> – Setting boundaries for one's own work (e.g., only working from a specific desk at home and trying to set limits to working hours, switching off one's mobile phone)	<i>Personal development</i> – Taking part in organisational trainings (if available and relevant) – Trainings outside the organisation (e.g., how to structure emails effectively) – Proactively requesting specific workshops or trainings at work <i>Changes in work</i> – Structuring working day in an efficient way that prevents distractions from new technologies and information overload (e.g., setting specific times for checking emails (and not continuously doing so))

Source: Pfaffinger et al., 2020

Methodology

This paper explores the phenomenon of digital anxiety, considering the main stressors specific to digital transformation, as well as the techniques for their reduction that have already been successfully piloted – through concrete examples. Also, the study analyzes the correlations between technology, employees' mental health and changes at the organizational level, in an attempt to formulate a pertinent point of view regarding psychologically sustainable digital adaptation strategies.

The research considers both the qualitative and quantitative aspects, using mainly secondary sources – the review of relevant literature, such as scientific articles, studies and reliable statistical data – but also primary sources – data based on the author's own observations, concrete examples of good practices from relevant organizations. The data were processed and synthesized manually, with the limited use of general tools such as Microsoft Excel for organizing the data and generating comparative tables.

The literature analyzed was published between 2018-2025, especially articles, book chapters, conference papers and other reliable sources that analyze the impact of digital transformation in different industries, with a particular focus on its psychological, organizational and social dimensions.

The sources were selected from verified publications and websites, using keywords such as “digital transformation”, “occupational stress”, “employee well-being” or “cognitive overload”, each paper being analyzed based on context, objectives, contributions and limitations. The process on which this work is based assumed the understanding of the concept of digital anxiety and its manifestations, the identification of the main generative factors and the interventions to improve this phenomenon, also correlating with the effects on employees and the organization. Therefore, the objective considered in this approach was to ensure the coherence between the research question, hypotheses and results, in the general effort of the paper to contribute to a better understanding of digital anxiety as a complex and current phenomenon in the organizational landscape.

Results and further discussions

H1: Personalized organizational interventions, tailored to employee needs, significantly reduce levels of digital stress and anxiety in the workplace.

This research hypothesis is supported by the good practice example provided by SAP, a multinational software company, which has implemented the Employee Assistance Program (EAP), an initiative designed and developed to address challenges related to the well-being and mental health of employees, including those arising as a result of digital anxiety. This SAP policy offers support to employees through various approaches designed to ease their tasks and reduce their anxiety (especially in the context of digital transformation), such as 24/7 confidential counseling, coaching sessions to prevent stress and professional burnout, legal and financial consultancy and access to a network of mental health ambassadors. These tools within the EAP support employees subject to stress, information overload or anxiety caused by the changes produced in the workplace as a result of the digital transformation [13].

Although there is no official evaluation of the Employee Assistance Program available, it seems to enjoy a high degree of involvement and acceptance among the company's employees, positively impacting their psychological well-being. The comprehensive approach, by combining personalized support – such as counseling – with proactive actions, is in line with the existing literature regarding the main key interventions that reduce digital stress and anxiety. Therefore, the SAP example supports the hypothesis that personalized interventions that consider the specificities of employees reduce the level of digital stress and anxiety at the workplace.

H2: Proactive preventive organizational interventions have a significant positive impact on reducing digital stress and anxiety among employees.

AT&T, a multinational telecommunications company, is a technology-driven organization - both in the products it develops and in the adoption of digital tools in its work processes. The company is a model of best practice regarding continuous learning, one of the main areas of focus being the upskilling effort, which was initiated more than a decade ago and has resulted in over 2.7 million skills transformation courses and over 100,000 badges awarded. AT&T's "Future Ready" initiative aims to prepare employees for emerging digital roles, focusing on assimilating the skills needed in the future. In this sense, the company promotes a culture based on transparency - employees know exactly the direction and what they need to learn in order to be successful in the future, commitment to employees - the organization declares its goal to invest in people especially in the context of accelerated technological evolution, and integration of technology into the learning process - the company has launched numerous VR and AR-based training programs [14].

All of these elements significantly reduce stress and digital anxiety among employees. Therefore, this case supports the hypothesis according to which preventive organizational interventions of upskilling type have a positive impact in order to reduce stress and digital anxiety among employees. The high engagement rates and the internal progress reporting indicate an increased trust and availability of employees, confirming the hypothesis in practical terms. Moreover, this case also promotes a culture of adaptability and lifelong learning, thus increasing employee and ultimately organizational resilience in the context of rapid technological change.

Conclusion

This study addresses digital anxiety as a critical psychological challenge arising from the accelerated digital transformation of the workplace. By identifying the main triggers and analyzing relevant interventions to reduce them, the research highlights the need to pay attention to employee well-being and health. Practical examples from companies such as SAP and AT&T demonstrate that both personalized and preventive organizational approaches can effectively reduce digital anxiety.

The work contributes to this field by correlating digital anxiety with other related concepts such as technostress or cognitive overload, while also proposing a series of interventions to improve them. Through this approach, the paper offers both researchers and practitioners an analytical and structured framework for a better understanding of digital anxiety and the possibilities of reducing the negative impact of digital transformation on employees and the organization. Finally, it is demonstrated that adopting digital transformation in a sustainable and efficient way should take into account, in addition to the technological side, also the psychological and social aspects by supporting employees to remain resilient and perform in an increasingly digital work environment.

Considering the limitations of this paper in terms of the diversity of the contexts of the analyzed studies, the lack/limitation of longitudinal research and primary data, future studies could explore the concrete results of intervention measures to reduce digital anxiety.

Furthermore, a future research focus could be to investigate the role of organizational culture and leadership in ameliorating the negative effects of digital transformation, such as digital anxiety. In this sense, integrating cross-cultural perspectives and targeted analyses on a specific sector or field of activity could also be useful in understanding and addressing these complex phenomena. All these efforts, as well as that of the present paper, aim to contribute to the development and implementation of effective and relevant management strategies to mitigate the negative effects and maximize the benefits of DT.

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