

Digital well-being of managers in the hybrid workplace

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Abstract

Purpose. This article aims to explore the issue of digital well-being as a resource for achieving overall well-being at work and to assist managers in coping with technological demands during the hybrid mode of work. It describes how managers organize their work using information and communication technologies (ICT). Efforts were also made to determine the patterns of technology usage in a hybrid work environment. The level of technology acceptance, perception, and managers' attitudes towards technological changes were also considered.

Design/methodology/approach. This research employs a qualitative methodology, and the thematic exploration involves scrutinizing findings obtained from 20 in-depth interviews with managers (white-collar workers) employed in large organizations in Poland and is preceded by a literature review.

Findings. With the increasingly prevalent model of hybrid work, the number and frequency of ICT usage by managers are also on the rise. The findings enhance our understanding of how various behavioral patterns of interaction with information technology among managers shape concentration management, perceptions of technostress, work-life balance, managers' regeneration practices, and contribute to their digital well-being.

Practical implications. The results indicate the need for organizations to be more mindful of promoting sustainable ICT usage by managers, which can lead to an increase in their digital well-being and prevent the cultivation of an "always-on" culture within the organization. This approach also enables managers to constructively handle the continually increasing technological demands and technostress.

Originality/value. This research significantly contributes to the literature by examining how the utilization of information and communication technologies impacts the digital well-being of managers in a hybrid work environment. Without digital well-being, managers may find it challenging to achieve overall well-being at work, which can, in the long run, result in decreased productivity.

Keywords digital well-being, hybrid workplace, manager, human resource management, information and communication technologies (ICT), organizational behavior, technology use, digital workplace

Introduction

Information and communication technologies (ICT) are a new reality that is an important part of the everyday life of many working people, including those holding managerial positions in the organization. Research shows that people living in highly developed countries spend an average of more than 12 hours a day interacting with technologies (Kemp, 2022). The widespread and worldwide occurrence of digitization is reshaping diverse industries. It alters the workplace culture and the structure of work and gives rise to its novel characteristics.

Most organizations employing white-collar workers express an intention to eventually implement a hybrid work model, providing employees with the autonomy to choose their preferred location and work methods, determine the frequency of office attendance, and decide when to perform their duties remotely (De Smet et al., 2021; Microsoft, 2022; Wigert, 2022). Technological advancements assist managers in the selection and organization of workspaces. Nevertheless, the escalating utilization of ICT for professional purposes is reshaping the managerial connection with employees. This transformation is evident, as managers can exchange information with their subordinates at a significantly faster and more frequent pace compared to relying solely on direct communication. The heightened connectivity yields both advantages and disadvantages. For instance, intensive usage can result in a blurred distinction between actual need and necessity. Moreover, how ICT is designed and employed, digital habits and the anticipated user behavior in the work environment can contribute to expanding managerial autonomy and flexibility (Diaz et al., 2012), as well as exacerbating stress and fatigue. (Becker et al., 2013; Maulik, 2017; Stich et al.,

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2019; Tarafdar et al., 2010). In addition, if we take into account the need to constantly adapt to changes, or a large number of stimuli related to the high pace of work (factors that have constantly accompanied managers over the last few years), it is not surprising that the ability to concentrate, mental health, and managerial effectiveness suffer (Richardson & Antonello, 2022; STADA, 2022). Fatigue in the workplace can result in slower reaction time, reduced alertness and decision-making ability, poor judgment, distraction when performing complex tasks, and inadequate response in critical situations (Techera et al., 2016). It is worth emphasizing that the reason for this state of affairs is not the form of remote or hybrid work itself, but rather its improper organization, the widespread lack of balance and digital hygiene, and the lack of knowledge on how to manage such a specific form of work.

However, hybrid work, and especially its part performed remotely, requires managers to be more self-aware, to organize themselves differently, to set priorities, and to keep an eye on the balance between work and private time. Managing a hybrid team is also becoming a challenge so as not to exclude people working in one or the other model. In the context of hybrid work, it is also worth prioritizing areas related to commitment, the flow of current communication, cooperation between teams and the well-being of employees. Attending to digital hygiene and fostering a culture of digital well-being appear to hold paramount significance. This entails advocating for a wholesome equilibrium in digital usage and thwarting the pervasive “always-on” ethos within the organization (Nguyen, 2021), which in the long run may translate into the increased motivation of managers and an increase in their overall job satisfaction and company-wide performance (Isham et al., 2020; Nie et al., 2021; Oswald et al., 2015). Organizations that care about digital well-being define, among other things, clear limits on the use of ICT by their managers so that after a break they return to work rested and able to create a resilient and positive work culture.

Even though issues related to well-being at work have become a large and multidisciplinary field of research over the last century, the impact of how digital tools are used on well-being at work has been much less explored. This article seeks to address this gap by attempting to assess the competence of managers working in a hybrid manner with the use of new technologies in the field of shaping digital well-being. The main purpose of the article is to present how managers organize work with the use of information and communication technologies. To what extent do they use ICT consciously and purposefully, enabling them to effectively achieve both professional and personal goals and well-being at work?

The study is organized as follows. Following this introduction, the subsequent section conducts a comprehensive review of pertinent literature concerning the theoretical frameworks of digital well-being in the workplace. The succeeding section elaborates on qualitative research methods, elucidating the empirical data derived from 20 in-depth interviews with managers employed in white-collar positions within Polish private sector organizations. Subsequently, the third section discloses the findings and engages in a discussion on the digital well-being of managers who utilize technology in the hybrid workplace, elucidating the various behavioral patterns of interaction with information technology among managers. Finally, the last section draws conclusions and outlines recommendations for human resource management (HRM) and suggests avenues for future research.

Theoretical Background and Conceptual Frameworks

Well-being at Work

Well-being, i.e., a state in which a person feels good, is healthy and happy, is associated with acting in all spheres of life, among which professional activity and functioning as a manager play a particularly significant role. From a practical perspective, well-being at work is equated with job satisfaction; however, researchers point to three of its dimensions:

- psychological—subjective mental well-being (among others, job satisfaction, self-esteem, agency, and capabilities);
- physical—body health experience (among others, physical safety work ergonomics, health care);
- social—the quality of relations with other people (among others, trust, social support, cooperation) (Grant et al., 2007; Ryan & Deci, 2001).

Workplace well-being can be described as an employee's condition where they are aware of and comprehend their capabilities, fulfill fundamental needs, manage stress effectively, maintain productivity, contribute to their community, experience a sense of security, and derive satisfaction and purpose from their work (Van De Voorde et al., 2012). Prioritizing the well-being of employees has the potential to enhance resilience, foster higher employee engagement, decrease instances of sickness, absence, and presenteeism, and ultimately elevate overall performance and productivity (Boyd et al., 2015; Buffet et al., 2013; Harter et al., 2002).

Digital Well-being

With most jobs relying on technology, managers are navigating how to ensure digital well-being, especially among those who spend their workdays on computers. Technology plays an increasingly important role in private and business life. If a manager manages technology, can maintain and use it consciously, his value in the organization increases. In the opposite situation, technology can generate costs, not properly support operations, and even expose the company to measurable losses related to IT systems and their security. It is worth emphasizing here that currently, it would be difficult to achieve well-being at work without a sense of digital well-being.

The term digital well-being is not strictly defined but generally refers to the proper use of information technology to ensure mental, physical, and social well-being (Vanden Abeele & Nguyen, 2022). It is a relatively new term, born from the introduction of digital technologies like laptops, smartphones, wearables, and the Internet, with numerous applications for remote collaboration and communication. A manager's digital well-being is demonstrated by being able to use digital technologies to work productively, build social relationships, and maintain a healthy and sustainable life without experiencing the negative side effects of digital technologies such as distraction, addiction, and risks related to health, security, or privacy (Bordi et al., 2018; Gui et al., 2017). At the same time, it is not about forcibly limiting screen time or cutting personnel off from technology, but rather about ensuring that online and offline activities complement each other and enable a more balanced approach to new technologies—balancing benefits and harms (Büchi, 2021; Vanden Abeele, 2021). The manager's digital well-being can therefore be defined as a set of knowledge, skills, attitudes, and actions to optimize individual somatic, mental, and social health through the responsible and sustainable use of ICT with the full awareness that the specifics of the design, particularly of tools for remote collaboration and communication, may encourage their thoughtless misuse.

The starting point for estimating the level of digital well-being may be the manager's perception of technological variability. How positively does he assess the continuous changes and dynamic development of technology, does he have a sense of "keeping up" with new solutions, and does he see the need to adapt them and use them purposefully in his work?

The next step may be to analyze the processes related to the management of concentration and focus, multitasking, as well as overstimulation and technostress, i.e., the tension that appears when interacting with digital technologies (Hefner & Vorderer 2017; Salanova et al., 2014; Weinstein et al., 2016;). In this case, the stressor is information overload, multitasking, or a sense of lack of time. Recent research does not regard technostress as an isolated phenomenon solely generated by technology. Instead, it is seen as a response that emerges through the interaction between the user and the technology. The onset of technostress is contingent upon individual users' experiences, abilities, assessments, and the specific type of technology being utilized within a given context (Gimpel & Schmied, 2019). Tension, low motivation, irritability, and disengagement are common symptoms of technostress. Information overload can be defined as the experience of feeling overwhelmed by a large amount of information received at a rate too fast to be processed effectively. This causes cognitive exhaustion due to the constant need to deal with distractions. Managers today are in a constant stream of information disruptions that result in kicking out of work and shallower mental processes (Matthes et al., 2020). Research (Eppler & Mengis, 2004; Misra & Stokols, 2012; Reinke & Chamorro-Premuzic, 2014; , Wajcman and Rose 2011) shows that a serious problem is working amid constant distractions, interrupting tasks with constantly incoming emails, notifications, messages sent through messengers, not parting with your smartphone, constant readiness to reply to emails and text messages, which in turn causes a decrease in efficiency, lowering the quality of mental work and creating a habit of working in the so-called half-focus. It is a state of mind in which the manager does not pay full attention to anything and remains on constant alert, which stimulates the production of adrenaline and cortisol (Bondanini et al., 2020). The manager, who is expected to be constantly ready to receive and execute new orders, loses the vision of completing the task (Duan et al., 2023). Work that never ends, even the most interesting or best paid, becomes task work, meaningless and ultimately burning out the individual (Maslach & Leiter, 2016). After a strenuous cognitive effort, a restorative break is essential to return to online work with greater awareness.

It is also important to allow the manager to turn off and go into the "off state", so that after the cut-off time he is ready to face the incoming stimuli again. Digital availability (being online) during breaks from work reduces the breaks' regenerative power. Even when a manager does not use the devices connecting him to work during certain hours, the mere fact of staying online keeps stress hormones at a level that does not allow the activation of the relaxation response necessary for rest (Tarafdar et al., 2019). A threat to the manager's performance resulting from constant availability is also the temptation appearing in such conditions, turning into a necessity to attempt to perform several tasks at the same time (Taylor & Bazarova, 2020).

The last element of digital well-being may be the ability to recover and cope with a specific type of fatigue or weariness called a "digital hangover" (Stjernfelt & Lauritzen, 2020). Using new technologies anytime anywhere is not a sign of digital well-being. Gaining better control over ICT usage habits can make it easier to find a balance that suits the needs of the manager and serves his/her job performance.

Various factors are closely linked to the digital well-being of managers. Zeike et al. (2019) described the correlation between enhanced digital leadership skills and elevated psychological well-being. In a similar vein, Bordi et al. (2018) pointed to the pivotal role of the quantity, quality, and adaptability of digital communication. Furthermore, Zeike et al. (2019) shed light on the adverse impact of perceived choice overload in ICT tools on well-being. Sun et al.'s (2022) work additionally underscores the mediating role of well-being at work in the intricate relationship between digitization and mental health. These findings highlight the crucial role of digital leadership, effective communication, and adept management of cognitive demands in promoting the digital well-being of managers.

Requirements and Resources at Work

The requirements and resources of an employee are described by the Job Demands-Resources Theory (JD-R) (Bakker & Demerouti, 2007), in which the authors group the two indicated factors occurring in the work environment and determine how requirements and resources affect the well-being of the individual and its functioning at work. Job requirements encompass the physical, psychological, social, and/or organizational elements of a job that demands sustained physiological and/or psychological (cognitive and emotional) exertion or expertise, thereby incurring physiological and/or psychological costs. Classic examples of job demands are high work pressure, unpleasant physical working conditions, and lack of job control. Of course, the demands of work are not always negative factors that cause stress, but they become stressors when meeting these demands involves a lot of effort and the resulting costs are not adequately compensated.

Resources, on the other hand, help the employee cope with the intellectual and emotional demands of the job. They refer to the physical, psychological, social and/or organizational aspects of work, which can be a tool in achieving professional goals, reducing the psychophysiological costs associated with the demands of work, and contributing to personal development. The most important work resources include: the ability to control work, participation in decision-making, receiving feedback on the work performed, the variety of tasks performed, the possibility of development, and support from the supervisor and colleagues (Bakker and Leiter, 2010).

In addition, two processes interact at work: energy and motivation. The first one is activated because of excessive demands, which can lead to negative effects on the level of performance and subjective well-being of the employee. In turn, the motivational process is launched thanks to the specific resources of the organization and/or personal resources that encourage employees to be more involved in work, ensure its better quality, and improve professional competences. The direction and development of these two processes (energy and motivation) depend on the mutual relationship between work demands and work resources (Demerouti et al., 2001). When job demands are high, but resources are present in the work environment that the employee can use, the health effects (effect of exposure to stress related to high job demands) may be lower than in a situation where these resources are not available or the employee is unable to use them (Schaufeli & Bakker, 2004).

In this context, it can be concluded that digital well-being can be a manager's resource supporting him in activities related to balancing technological requirements (Park et al., 2020) and, as a result, positively affecting his sense of well-being in hybrid work in general. As noted by researchers (Straus et al., 2023), resources are more effective in averting the adverse effects of stressors when stressors, resources, and demands are in harmony. However, there is still insufficient evidence regarding the interplay between emerging job demands resulting from the introduction of new technology and an individual's resources. This indicates a gap in the organizational literature regarding the impact of personal resources (e.g., digital well-being) on the embrace of new technology tools and, consequently, workplace well-being.

In conclusion, this study aims to explore how managers utilize ICT in hybrid work settings. It investigates whether this constitutes a sustainable use of technology that leads to a sense of well-being at work. The following main research questions were formulated:

1. How do the respondents deal with technological variability? What new opportunities do they perceive at work resulting from its hybrid nature, and what is the biggest challenge for them at the moment?
2. What are their hybrid work habits? How do they organize work with the use of information technology? How do they care about the concentration and quality of their work?
3. How often do they face techno-stress and information overload and how do they try to deal with it? Do they feel any discomfort related to working too long in front of a computer screen, and if so, what are these discomforts?
4. To what extent does the ubiquity of ICT disturb the balance between the professional and private lives of the respondents, and to what extent is this balance important to them? Do they allow themselves to be "offline?"
5. What methods do the respondents practice to rest their minds and body from screens and technology?

Method

The described research is exploratory and qualitative in nature. In the context of the theoretical premises discussed above, the recognition, identification, and assessment of the level of digital well-being of managers working in a hybrid form seemed to be important in research. The described research also constitutes an attempt to respond to the call from researchers (Cook et al., 2022) to conduct in-depth qualitative research aimed at identifying new phenomena related to work and HRM in the context of the rapid adoption of digital technologies and the post-COVID-19 recovery process. The findings presented here aim to address this research shortfall.

Participant Sample and Methodology

The study cohort comprised 20 individuals (N=20) working in managerial roles across diverse sectors in Poland. The majority of participants were female (70%), holding positions in prominent organizations within the education, finance, and information technology sectors. Respondents' ages ranged from 39 to 55 years (with an average age of 42), and all interview participants were of Polish nationality. The detailed profile of the participants is outlined in Table 1.

Table 1. *Profile of Interview Participants*

GENDER		SIZE OF ENTITY			
Woman	Man	Large Company	Medium Company		Small Company
14	6	17	2		1
INDUSTRY					
Media	Marketing	Education	Finance	Pharmaceutical	Technology
1	1	6	5	1	6

Source: Own work.

Respondents were chosen through a process facilitated by a social networking site to engage individuals working in large organizations with a staff of 250 employees or more. This decision was guided by the assumption that the most significant organizations actively participate in initiatives to promote employee well-being and extensively utilize ICT. Invitations for interview participation were extended to representatives of specific global companies employing white-collar workers. Additionally, the selected respondents were deliberately chosen for their substantial professional experience, with an average tenure of 16 years, and an average team size of 19 subordinates. Another criterion for selection was the requirement for respondents to have worked in a hybrid work arrangement for a minimum of one year.

A semistructured individual in-depth interview (IDI) was used as the research method (Kvale, 2012). The examination of textual data originated from transcriptions of interviews, which were systematically categorized and coded. Through in-depth individual interviews, we gained insight into how managers structure their work in a hybrid environment using ICT and whether they maintain digital well-being. The following topics were focused on: managers' perception of technological volatility, managing concentration and work organization with the use of technology, techno-stress and coping with it, balancing professional and personal life along with managing activities both online and offline, as well as regeneration and well-being at work. The interviews were carried out in the period from June 2022 to January 2023. As a result of the implementation of the IDI, 280 pages of material were obtained (20 interviews were conducted; the total duration was 934 minutes). The interviews were documented through recording and subsequently transcribed into textual formats. Qualitative data analysis was carried out using the MAXQDA software.

The primary analytical procedure in qualitative research within the social sciences involves coding, which entails classifying and categorizing individual data elements along with implementing a system for data retrieval. The interviews' content has been organized by topic, adhering to the qualitative data coding principle. Coding and the exploration of connections between concepts played a pivotal role in the research analytical process (Gibbs, 2007). During the analysis, coding was employed to label and categorize phenomena by thoroughly examining the collected data according to a prepared analysis framework and data coding system, derived from the interview structure. Subsequently, a content analysis of the surveyed managers' statements was conducted. Thematic analysis engaged with the data inductively, with the researcher progressing from isolated

instances to broader interpretations. This involved applying codes, establishing categories, and ultimately identifying themes (specific behavior patterns). Data mining encompassed activities related to condensing and transforming data through selection and inclusion in general patterns. The in-depth interviews facilitated participants in providing comprehensive insights into how they organized their work with the use of technology and what its impact was on their digital well-being.

Results

The examination of participants' remarks was conducted using transcripts of the interviews. This allowed for the depiction of how managers operate in a hybrid work setting with the utilization of ICT and an endeavor to assess their digital well-being. The tables showcase the primary code categories along with the associated quotes. They visually represent the subjects covered in the interview, and, in addition, specific statements from the respondents are quoted to exemplify the research findings.

Perception of Technological Volatility

A high level of tension, the need to constantly adapt to changes or a large number of stimuli related to the high pace of work and the use of many different technological solutions are the factors that accompany managers working in the hybrid model in Polish organizations, often exceeding the level of intensity they had known thus far. Some of the managers declare that their condition is weakened and the resources are too small concerning the challenges they face. The biggest challenge for most managers resulting from technological variability is the efficient organization of the work of hybrid teams, establishing communication channels, and introducing new people to professional duties.

In the case of the approach to technological volatility itself, three coexisting patterns of attitudes can be observed. Some managers emphasize being overwhelmed by the intensity and number of changes taking place, which makes it difficult for them to function efficiently. They perceive technology more as a job demand. Others approach this issue quite thoughtlessly, reacting indifferently to the progressing volatility and emphasizing that keeping up with the changes is somehow forced by their function and as managers, in their opinion, they have no choice—they have to find themselves in every situation. The last model is managers who declare a positive attitude to the ongoing technological changes and their intensity, who try to keep up with technological innovations and use them, for example, to organize a common virtual workspace. They perceive technology more as a job resource. Details are presented in Table 2.

Table 2. Examples of Respondents' Statements on the Perception of Technological Volatility

Code	Behavior pattern	Illustrative quote
Perception of technological volatility	Being overwhelmed by the intensity and number of changes taking place	<i>It is hard to keep up with all the new software you work with. The fact that everyone uses different tools, and a person is not even able to prepare for them, to use them fully (...) is quite burdensome (R4).</i>
		<i>A lot of things appear and are naturally promoted internally by the company in the context of sharing information, using various clouds, share drives, new applications for various types of reports. Also creating different communication groups. Sometimes it is a lot. Especially when it comes to such team groups, team folders, where various types of information are posted and then this Teams just beeps with information that there is an update somewhere (R5).</i>
	Unreflective acceptance of change (indifference)	<i>Every day I am forced to learn new technologies. In my case, it is a bit like this—I am used to it. When I see something new, I have to learn and start using all these new elements (R6).</i>
		<i>It is like this, when I get into a new car, I just drive it, so whenever something technologically new appears, that I need to use, I just start using it (R11).</i>
		<i>I am used to it because I have been working in this mode for several years. I can understand and get used to new technologies very quickly (R8).</i>
	Positive attitude to intensity and ongoing changes	<i>It seems to me that I manage to keep up with technological variability. I started a new job during the pandemic and immediately switched from a traditional work model to working in a hybrid environment with ICT (R12).</i>

Source: own work.

Also, the level of technological literacy among managers is crucial. Managers with a solid understanding of emerging technologies may view volatility as an opportunity for growth, while those less familiar might perceive it as another job demand. What's more, the current state of a company's technology infrastructure can shape managers' perceptions. If an organisation has a solid and flexible technology foundation, managers may feel better equipped to navigate technological change, reducing negative perceptions of volatility. This perception of technological variability by managers can also be shaped by their sense of responsibility for achieving organisational goals, the way they manage their time, and the demands placed on them and their co-workers by their own ICT usage practices.

Organization of Work with the Use of ICT and Habits of Hybrid Work

Most of the managers participating in the interviews see both the advantages and disadvantages of working in a hybrid model with the use of information technology. Respondents emphasize that thanks to technology they can keep up to date with all professional activities and keep their finger on the pulse. Some of the respondents also emphasize that thanks to some technological solutions they can work more effectively and organize their activities, and the technologies used provide them with flexibility in their professional activities. Surveyed managers in their hybrid work utilize various ICT tools. Most frequently, aside from email or specific industry systems, indicated tools include video conferencing and online collaboration programs such as MS Teams, Zoom, Messenger, WhatsApp, Jira, and Slack.

The element that bothers the most respondents a bit is that due to the widespread adoption of information and communication technologies, a large part of meetings take place online and as a result managers begin to lack direct contact with their subordinates, which contributes to a decrease in their sense of well-being at work.

When analyzing the patterns of managers regarding the use of modern technologies at work, three characteristics can be noticed. Firstly, the conscious and purposeful use of selected technologies to enable the effective implementation of professional activities and conducive to achieving well-being. Secondly, the lack of control and, as if, succumbing to technologies in the direction of compulsive use of them "anytime and anywhere", without a sense of digital well-being. Thirdly, the study and testing of technologies to determine the optimal solutions and possibilities of use. Details are presented in Table 3.

Table 3. Examples of Respondents' Statements on the Organization of Work with the Use of ICT and Hybrid Work Habits

Code	Behavior pattern	Illustrative quote
Organization of work using technology	Conscious and intentional use of technology	<i>In my work, e-mail has always been the basis plus expert systems. In addition, I choose videoconferencing and other tools that allow me to achieve my goals (R4).</i> <i>The possibility of online meetings, especially short ones, in a situation where more people from different units need to be brought together. I can explain something to them better than over the phone because I can share the screen, preview the system, and show an example of how they are supposed to prepare something and this is a big plus (R20).</i>
	Unreflective, compulsive use of technology	<i>People call me non-stop. My smartphone occasionally heats up significantly during consecutive phone calls, prompting me to switch to speakerphone as a precautionary measure to prevent any potential overheating issues or concerns about it exploding (R18).</i> <i>These technologies have somehow taken over all of us. People started to contact via ZOOM, through Messengers. And as if they stopped being aware of what work is... what time is work, until when, and when life begins, and I could not get out of it either (R1).</i> <i>The worst thing is when there is such a flood of information from different communicators. This is what makes my head spin a bit and I have the feeling that I have no control over it (R5).</i> <i>I simply do not have the time-space that would allow me to play with it [technology] and see what I could implement, i.e., such exploration simply related to some curiosity, to improve my action (R15).</i>
	Exploration and search for improvements	<i>I am a supporter of maximum automation of all activities and the use of technology wherever possible. For me performing a task is an analysis of whether this task will be repeatable, if it is repeatable, it must be automated, if it is automated, then I am looking for solutions and tools we have (R3).</i>

Source: Own work.

ICT can allow flexibility in work schedules, which can prompt managers to stay longer to accommodate their individual needs. Contemporary ICT tools, such as Teams or Zoom, often encourage managers to be constantly online, fostering an "always

available” mentality, even outside normal working hours. This software shapes working practices and communication. Push notification features constantly keep managers informed, increasing their alertness. Document sharing and work insights contribute to managers staying closely connected to their responsibilities outside the office, and their micromanagement tendencies may be also exacerbated. It is worth emphasizing at this point that how managers use ICT, along with their managerial practices, goal-setting, and procedures, does not remain without influence on the development of competencies in the realm of digital well-being for both themselves and their teams. At times, top-down organizational procedures may also foster compulsive and unreflective use of ICT by managers.

Concentration Management

Managers are aware of the need for concentration at work, but they do not analyze this phenomenon. Rather, they take the approach that goals should be achieved and try to work in such a way as to get everything done on time, without analyzing the cognitive process of performing the task. When analyzing the respondents’ statements, it can be concluded that the model of hybrid work dominates, in which this part of the work performed in the office is more focused on direct contact and exchange of information with co-workers. On the other hand, in this part of work provided from home, tasks that require more focus and conceptual work are performed. Details are presented in Table 4.

Table 4. Examples of Respondents’ Statements on Concentration Management

Code	Behavior pattern	Illustrative quote
Concentration management	Reducing stimuli	<i>I have all notifications off on my smartphone. So, for example, if I get something on WhatsApp, or Messenger from employees, I open it when I have a moment. And not that these push notifications always come whenever something appears there (R13).</i>
	Deep work	<i>If I am doing some more demanding work, then I try to focus hard on that and I don’t check my email during that work, ignore pop-ups with information about the next messages and try to finish this work, but I am on standby all the time, I am watching (R3).</i>
	Multitasking	<i>I do several activities at the same time, for example, a phone call, notifications or emails, getting acquainted with some data. Remote work is conducive to such situations, but stationary work in the office does not allow for so many different activities at the same time (R13).</i>
	Checking off subsequent tasks	<i>The sheer volume of information is just too much to handle. Digital tools contribute to this feeling. Nowadays, in the current age of digitization, we receive data through email, phone calls, messengers, and various systems. As a result, it feels like we’re in a perpetual work mode. I constantly have this sensation that I’m at work, and there are always various tasks demanding attention, seemingly without end (R17).</i>
	Extending working hours	<i>Usually, at home, my work lasts all day. Because in the office, I just come to the office at a certain time in the morning and leave at a certain time in the afternoon. I shut down my computer and that’s when the job ends. In contrast, at home, this computer is on all the time (R12).</i>

Source: Own work.

Managers need time for in-depth work, but the statements show that it is rather “pulled out” of current tasks than consciously planned and used. Even when managers plan conceptual work during the day, they usually have to interrupt it because of current affairs that dominate. Some managers make deliberate efforts to autonomously limit stimuli in the form of constant notifications from ICT applications, which disrupt their concentration process and hinder the effective execution of cognitively demanding tasks. This often involves periodically disabling push notifications from applications or abstaining from launching specific online communication programs that essentially enable unrestricted contact with employees or clients. Multitasking is the norm. All respondents emphasized that they deal with at least several activities at the same time and some described it as a standard way of doing work. At the same time, in the statements of managers, there is a conviction about ticking off subsequent tasks, a sense of work that never ends, and working hours are extended—especially the parts that are performed remotely. It seems that managers have the challenge of balancing the need for connectivity and communication with the need for focused, concentrated work. Some of them are looking for ways to strike a balance between staying informed and minimizing distractions.

Techno-stress and Information Overload

The statements of managers show that they experience a fairly high level of information overload and overstimulation, with simultaneous constant pressure to quickly achieve the assumed results. At the same time, managers show a fairly strong desire to control everything—to be “up to date”, and often their activity is caused by the so-called FOMO (fear of missing out) (Budnick et al., 2020); they are afraid of being out of control so as not to miss anything important. The perceived usefulness of digital tools is therefore sometimes a source of ever-growing anxiety that hinders the experience of well-being at work. The managers noted an excess of technology, which pertains to the need to work faster and longer due to technological demands. They also pointed out a technological invasion, involving constant connectivity, leading to the blurring of boundaries between work and personal life. Additionally, they emphasized technological complexity, signifying an individual's difficulty in comprehending specific tasks or situations, and technological uncertainty of situations characterized by ambiguous expectations or outcomes. Most managers acknowledge that they experience the cognitive load associated with managing multiple digital tasks simultaneously, and highlight that the complexity of digital interfaces and the need to switch between different applications exacerbates their feelings of overstimulation and information overload.

On the other side, respondents believe that thanks to ICT they have more autonomy at work, especially thanks to those solutions that enable communication over a distance. Few managers participating in the study noted that, compared to employees, they have a higher degree of autonomy in project management and, consequently, bear greater responsibility for the outcomes achieved by their team. Such a role involves decisions regarding processes and schedules, shaping the work culture of subordinate employees, and the increased autonomy and responsibility may, on one hand, enhance or hinder their well-being at work.

At times, managers attempt to shield team members from stress or challenges by taking on the most difficult or additional tasks themselves. Furthermore, they may extend their working hours and encroach upon their boundaries in the process. These can increase the experience of work-related stress, attributing it to self-imposed pressure. This is a delicate issue as employees observe how managers handle their workloads and emulate their choices. Hence, it appears crucial for workplace well-being to avoid overburdening oneself. Managers can achieve this by training others, delegating tasks, empowering team members, and ensuring collaboration and coordination with other groups to prevent an undue burden on themselves. Nevertheless, managers report various types of psychophysical ailments, such as back pain, insomnia, vision problems, nervousness, and intensified tension when being offline, the causes of which they see as excessive use of technology. The detailed respondents' statements about techno-stress and information overload are presented in Table 5.

Table 5. *Examples of Respondents' Statements about Techno-stress and Information Overload*

Code	Behavior pattern	Illustrative quote
Techno-stress	Overstimulation and information overload	<i>There's an abundance of information from various sources. Numerous applications require a considerable amount of time to understand and operate, leading to a frequent sense of time scarcity and the associated stress, diminished motivation, and heightened irritability. It's a common occurrence for me to initiate one task, only to be reminded of another task midway. As I start working on the second task, I recall the need to check another system, creating a cascade of tasks. The rapid flow of thoughts and the overwhelming amount of information to handle can be quite challenging (R4).</i>
	Fear of missing out	<i>I think that this element of such a fear of switching off, of losing information is quite large and I haven't found a way to deal with it yet. On the other hand, this is also, in my case, related to the design and the matching of the team. If I have a high sense of trust in the team members I work with, it is easier for me to switch off (R10).</i>
	Autonomy in action	<i>I feel that I have more autonomy; the availability of email or Teams on a smartphone allows me to stay up to date and respond to any needs of employees somewhere, in various situations outside the office (R17).</i>

Source: Own work.

Work-life Balance and Work Boundaries

At the level of declarations, most respondents emphasize the importance of clearly separating their professional and private lives. However, the implementation of this principle in practice differs. Most managers point out that due to the omnipresence of technology and the constant flow of information, they struggle to maintain a balance in the work-life relationship. Some of the statements indicate that there is no need to maintain a balance and consciously put work before private life as a consequence of the managerial role. Taking into account the statements of the respondents, it can be seen that due to the mobility and constant availability of work tools (most applications or systems are offered as the so-called SaaS - Software as a Service in the cloud), regardless of the location of the managers, they have difficulty maintaining clear boundaries and balance in the work-life relationship.

Working hours, especially those performed remotely, are frequently extended by managers, and they experience difficulty in completing their professional duties. As for nonprofessional areas of life most disrupted by professional work, respondents most commonly pointed to family life and physical activity. Such extensive use of technology blurs the line between work and personal life, creating pressure on managers to be constantly available and engaged. The ability to balance work and personal life becomes crucial; it highlights the need to consciously manage online accessibility to promote managers' and employees' digital well-being.

From the managers' statements, it can be inferred that an intensified sense of responsibility for the team's results and a tendency to exert control hinder the process of creating of work-life balance. As practical experience indicates, it is not possible to do everything alone. Turning towards collaboration with suitable colleagues, whom the manager can trust to fulfill assigned tasks, can help maintain balance, both for the manager and members of the team. A well-built team that does not require constant monitoring, coupled with task delegation and responsibility sharing allows the manager to avoid the burden of thinking and executing everything alone.

The detailed respondents' statements about work-life balance are presented in Table 6.

Table 6. *Examples of Respondents' Statements about Work-life Balance*

Code	Behavior pattern	Illustrative quote
Work-life balance	Segmentation of work and life	<i>I make an effort to keep my personal and professional lives separate, but I still sense an imbalance. The intrusion of technology has undoubtedly disrupted this balance in my case. Private lives are affected because we are consistently connected to the network, and work-related issues can arise at any time, day or night (R1).</i>
		<i>I like to have clear boundaries, but in reality, working with ICT makes it difficult to separate my private life from my work life. Both of these worlds influence each other, precisely because of modern technologies, and everything becomes blurred (R4).</i>
		<i>I do not approve of an attitude where we leave work, turn the phone and computer off, and I am away until Monday. Different situations can happen and sometimes a minute of conversation is enough, some short piece of information that can protect the organization from a difficult situation, so I am always available to my employees (R3).</i>
	Integration of work and life	<i>Working from home, it's very easy to blur that boundary between work and private life. And I end up working more. I find it challenging to disconnect from work, and my work stretches out, often overlapping with my family life (R6).</i>

Source: Own work.

Regeneration and the Online/Offline Balance

The research conducted indicates the challenges faced by most managers in disconnecting from technology, especially in the context of remote work. The findings reveal that a significant number of managers continue to work during holidays, sick leave, and beyond regular working hours, making it difficult for them to disengage from their digital devices. Several respondents explicitly noted that being continuously online is their choice and a result of their profound sense of responsibility for achieving the goals of the organization they work for. Furthermore, managers clarified that although they prefer to remain in constant work-related connectivity, they do not impose such requirements on their subordinates. Similar to the issue of work-life balance, in the matter of conscious disconnection from technology among managers, the need for control and authority prevails, limiting the manager's inclination toward deliberate and planned regeneration. This may also be caused by excessive performance pressure imposed on managers by higher-level leadership. While managers recognize the importance of regeneration to enhance their professional performance, the desire to maintain control often prevails, leaving limited room for unplugging from technology.

When managers do allow themselves a break from technology, they report the quickest regeneration when connecting with nature or pursuing their hobbies and sports activities.

Furthermore, some organizations have implemented top-down practices aimed at reducing the scheduling of consecutive online meetings and restricting access to employees' work emails during extended leave or by introducing so-called "focus days", during which employees may be absent from online work systems. Additionally, several managers have mentioned that their organizations offer opportunities for participation in yoga or relaxation classes and provide flexible working hours. The detailed respondents' statements about regeneration are presented in Table 7.

Table 7. Examples of Respondents' Statements about Regeneration Practices and Online/offline Balance

Code	Behavior pattern	Illustrative quote
Regeneration practices	Online/offline balance	<i>I like being online at work. It is a solution that gives me the feeling that I know who is at what stage. I have this feeling of blurring of time and such blurring of the day... these boundaries of work dissolve so much, and the messages come even late at night (R15).</i>
		<i>I am consistently connected online, especially for access to essential communication and company management tools. Therefore, the idea of completely disconnecting from work, leaving, and shutting down my laptop doesn't align with my approach. I send messages regularly, work during the night, and assign tasks, but I don't anticipate anyone to complete them, especially over the weekend (R3).</i>
	Bottom-up practices of employees	<i>I find regeneration in the presence of forests and green landscapes. It allows me to completely disconnect. It feels like a source of significant regeneration for me. When I return, I genuinely feel recharged, and my mind operates differently. This, I believe, is the crucial factor that prevents me from feeling overwhelmed (R11).</i>
	Top-down organizational practices	<i>Meetings are highly engaging and time-consuming, and my organization has introduced two rules. One rule is not scheduling meetings during the hours of 12:00 to 13:00, during the lunch break, and the other after 16:00 when we finalize various matters and finish work (R14).</i> <i>In my organization, there is a solution where when I go on an extended vacation, my access to the email inbox is intentionally blocked, and even if I wanted to, I cannot retrieve emails. Additionally, Thursdays are reserved for conceptual work, and there are no meetings scheduled on those days (R5).</i>

Source: Own work.

Discussion

Interviews with managers show that they often present quite low competences related to both dealing with long-term work in a digital environment and the effective use of ICT in a hybrid work model, which results in a relatively low level of digital well-being. Technological volatility itself is perceived by managers quite neutrally, as a natural stage of development and organization of work. At the same time, the ongoing technological changes and their dynamics, the fact that sometimes they take place too intensively and too fast, sometimes cause states of tension and overload among the respondents with their work. The consequence of this is information overload and difficulties with concentration, which managers experience on a mass scale. The organization of the so-called "deep work" requiring intensive cognitive effort is quite problematic in the flood of information and constant stimuli reaching managers from the numerous systems and applications they use, which are designed for constant communication and collaboration.

All respondents admit that it is standard for them to perform several different professional tasks at the same time (so-called multitasking) and the accompanying feeling of ticking off successive goals from the list. This, as shown in different research, in the long run, may increase the perceived stress, overwork and overstimulation with information and decrease productivity and well-being at work, and in consequence cause burnout (Shih et al., 2013).

Managers show a fairly positive attitude toward working with ICT. They admit that it allows them autonomy in terms of their actions, and they mostly treat these different technological solutions as resources, not job demands (ter Hoeven & van Zoonen, 2015). They also emphasize the deliberate use of the technological solutions available to them to achieve the set goals. It seems to be good sign, because Gagné and Bhave (2011) underscore the importance of autonomy in job design and management practices, linking it to employee engagement and well-being. At the same time, the data collected from interviews indicate that quite often this motivation is caused by the fear of disconnection and the fear that when this habitual use of technology is limited, the manager will probably miss something important and will not react in time. The flexibility facilitated by using ICT can enhance scheduling autonomy, allowing managers to work without constraints of time and space. However, this is only a partial representation of the situation. The use of ICT can also establish anticipations of continuous connectivity, where managers are required to remain online and promptly respond to requests, essentially confining them and their subordinates within a "digital cage" (Cavazotte et al., 2014). Supervising hybrid teams presents extra job requirements and continues to pose a challenge for managers. Studies indicate considerable expectations and areas of difficulty for managers in this realm. This underscores the necessity to establish novel management practices and habits for working with ICT.

All this makes it difficult for managers to separate their private and professional lives and to maintain a work-life balance. This is probably related to a deep sense of responsibility for the work performed, which results in difficulties in transitioning into the “offline” state after obligations are done and fosters an “always on” culture in an organization. While working in the office it is easier for managers to disconnect after performing their duties, but while working remotely, it is a very big problem. Managers work longer hours, placing high demands on themselves as managers, and remain almost constantly available, often driven by fear of losing control. This is particularly concerning because as the research of Marzec et al. (2023) has shown, as the amount of time dedicated to work increases, satisfaction with the performance of professional duties decreases.

Although the respondents declare awareness of the importance of the regeneration process for the effectiveness of their professional functioning, the research shows that regeneration is not a priority for them. All this results in a low level of competence in maintaining digital well-being by managers working in a hybrid environment. Managers tend to use technology mindlessly, almost constantly. At the same time, very low or no organizational support in this regard can be observed.

The duality associated with the use of ICTs is also evident in the fact that digital technologies, when consciously and purposefully employed, can expand the boundaries of information available to managers and enhance their productivity. However, when overused or utilized habitually or without reflection, they can also pose threats to their well-being (Dienlin & Johannes, 2020).

When adopting a hybrid model of work, all this needs to be sorted out in organizations, because without digital well-being it will be difficult for managers to achieve well-being at work in general. This is an urgent issue because, as is commonly known, in an organization, the example comes from the top, from the board level. Then it is the managers-leaders who set the standards of performance based on their organizational behavior—how much they care for themselves and how they optimize their work style, and then transfer the activities to the level of teams and individuals in the organization. Taking into account issues from the external environment of the organization and constant technological progress, organizations implementing a hybrid work model need strong managers. Those who will be involved, and innovative, will find themselves in uncertainty. In the era of information overload, it is crucial to manage attention resources appropriately and take care of what surrounds a manager and comes to them. This cannot be achieved without systemic care of their condition, also in terms of digital well-being. Amabile and Kramer (2007) point out that a manager’s behavior shapes an employee’s internal professional life, defined as emotions, perceptions, and motivations. This directly impacts both personal performance and the entire organization. Where managers themselves feel uncomfortable using the company’s ICT systems, this discomfort is likely to be transferred to employees through their language and behavior. Therefore, it is worthwhile to take organizational actions that also enhance their sense of digital well-being in working with ICT. Thus, the way managers perceive the impact of information and communication technologies on both their role and the overall performance of the organization will influence their attitude and behavior, and consequently, their employees and organizational culture in the end. Managers wield a crucial influence on shaping the workplace culture. How managers interact with their employees impacts the overall stress levels within the workplace, either positively or adversely. In many workplaces, managers are expected to always be there for their teams. However, this constant pressure to be available and supportive can overlook a crucial aspect: the well-being of the managers themselves. If they are not feeling good, mentally or physically, it becomes difficult for them to support their teams effectively. When managers take time for self-care, they do more than just help themselves—they set a positive example for their entire team. It shows that it is okay to take a step back and recharge when needed. By supporting managers in taking care of themselves, organizations can create a more resilient, empathetic, and effective workplace. The foundation of a strong team is a well-cared-for leader (Brower, 2021). A good manager should understand that it is truly important to grant oneself and subordinates permission to take breaks as needed, to go for walks outdoors during the working day, to engage in social interactions with others, to establish a culture where it is considered appropriate not to respond to electronic messages before and after working hours, providing people with the opportunity for genuine detachment from work and for real regeneration.

On the one hand, individuals are encouraged to find ways to cope with the challenges of work-life balance and technological overload by adopting disconnection practices, using meditation or timekeeping apps, undergoing periods of digital detox, etc. On the other hand, the focus on self-medication has limited effects in professional practices that still, in many organizations, emphasize constant connection and quantitative productivity.

When people work in a hybrid manner (which is a large proportion of white-collar workers today), they may especially struggle with feeling connected to the purpose of the organization and its culture, and they may not be clear about their expectations or the meaning of their work. Managers can help by inspiring purpose and giving them a clear sense of what success means for their job, and how it connects to the work of their colleagues and customers. When leaders are more present and accessible, it contributes to trust, a positive culture, and a sense of significance for people in the organization, but it can also cause significant tension on the manager’s part and exacerbate perceived techno-stress.

Managers play a crucial role in defining the goals and procedures of the team, taking into account the digital well-being of both

themselves and their teams. In this context, it is essential whether managers are aware of the impact of intensive technology use on their own effectiveness and well-being at work, as well as that of their employees. This is a question that needs answers if we aim to manage digital well-being effectively in the workplace.

Managers need to be aware of their role as leaders in building awareness of digital well-being. Organizing training on healthy technology use and promoting preventive measures can help minimize the negative effects associated with technology. However, structural support is also crucial. Managers, by taking a critical look at current practices and implementing appropriate actions, can introduce positive changes, enhancing efficiency, the well-being of employees, and overall work quality. The responsibility of managers for digital well-being becomes indispensable in an era of growing dependence on technology.

Limitations and Future Research

While these studies provide both theoretical and empirical insights into the current body of literature on well-being in the workplace through the use of ICT, it is important to consider certain limitations when interpreting the presented findings. The principal empirical contribution of this article is to highlight elements connected to the utilization patterns of information technologies in the work settings of white-collar workers. These factors have the potential to influence a manager's dedication to their work, allowing them to actualize their potential and to attain well-being in the workplace, all while also impacting their subordinates.

It is important to highlight that, even though the participants in the detailed interviews were exclusively managers from Poland, the majority of their workplaces are Polish branches affiliated with international corporations. Consequently, it can be inferred that the findings from this research may hold significance in the international conversation on ICT. However, a potential constraint lies in the deliberate selection of the research sample, preventing the generalization of the obtained results.

Certainly, the issue of digital well-being requires further research, also quantitative, which would allow one to determine the importance and impact of digital well-being on well-being at work in a narrower scope. This is important because the automation and digitization of work are progressing, and new ICTs are constantly appearing. This is all the more important when we consider the pace of artificial intelligence development and the application of algorithms in HRM. The continual use of ICT in the workplace necessitates that managers continually acquire new skills and enhance, or possibly entirely transform, those already established. This ongoing adaptation, prompted by the introduction of increasingly advanced technological solutions in the work environment, may lead to heightened negative emotions and stress, particularly for managers less adept at adjusting to the dynamic and demanding professional reality that we are presently confronting. Addressing this matter likely calls for further investigation, which could offer insights into the actions managers can take to alleviate negative sentiments among employees and establish new, efficient, and sustainable models for working with information technology.

Conclusions

In conclusion, this article highlighted the importance of managers' digital well-being in a hybrid mode of work. For HRM, this study has implications for organizational behaviors. The findings indicate that the advantages of heightened online accessibility decrease when ICT is utilized during late hours, extending the workday, and thus the adverse effects on employee well-being become more pronounced. Therefore, organizations should encourage the beneficial use of ICT while simultaneously educating employees about potential negative impacts. Establishing suitable procedures and work processes involving HRM is crucial. Additionally, social norms regarding the expectation to be "always on" should be clarified within the organization. To build a digital culture within an organization, it is not enough to simply run a transformation program, implement a few new ICT, and declare that the company is now "digital". To achieve full digital maturity, HR needs to define the expected attitudes and behaviors of its managers and employees and then make sure they become part of everyday practice.

Engaging the management in creating a culture of well-being begins with the leaders. Leaders who prioritize the well-being of themselves and their employees transform and change what happens within the company. Therefore, effective digital well-being programs provide managers with specific competence support, procedural guidelines, and team collaboration plans. All of this is aimed at facilitating the development of a positive work environment. A great idea is also to first address practices that drain the energy resources of leaders.

It is worthwhile for HR departments to take an active role in supporting organizations and management to promote solutions that improve digital well-being as an integral part of working conditions. Shaping understandable, realistic, and sustainable organizational policies that govern the use of technology in the workplace and rules for communication outside standard working hours is key. These policies should include setting expectations for online accessibility, work-life balance, promoting

breaks, holidays, and after-hours rest, and implementing flexible work schedules that allow employees to adapt their working hours to their individual needs and commitments outside of work. The aforementioned policies can be effectively supported by practices aimed at improving digital well-being in the workplace. Examples include encouraging employees to talk face-to-face with colleagues instead of sending emails, promoting methods to increase digital self-awareness such as mindfulness techniques, providing training on effective online time management, using digital tools, and dealing with techno-stress. Cultivating awareness of techno-stress and digital fatigue, both among employees and management, can lead to a more sustainable use of technology. Creating support programs for employees, such as stress management training, particularly in the context of technology use at work, can significantly contribute to techno-stress resilience (Kristensen-Tage, 2000; Moen et al., 2016; Shuttleworth, 2004).

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