Journal of Innovation & Knowledge 9 (2024) 100492

Journal of Innovation & Knowledge

https://www.journals.elsevier.com/journal-of-innovation-and-knowledge

Digital workers' stress: The role of digital creativity in the future jobs

Ludovico Bullini Orlandi[a], Jasna Pocek[b,c,d], Sascha Kraus[e,f,*], Alessandro Zardini[g], Cecilia Rossignoli[g]

[a] Department of Management, University of Bologna, Via Capo di Lucca 34, 40126 Bologna, Italy
[b] Department of Economics and Management, University of Florence, 50124 Florence, Italy
[c] Blekinge Institute of Technology, Valhallavägen 1, 371 41 Karlskrona, Sweden
[d] CIRCLE, Lund University, Sölvegatan 16, 223 62 Lund, Sweden.
[e] Faculty of Economics and Management, Free University of Bozen-Bolzano, Piazza Università 1, 39100 Bolzano, Italy
[f] Department of Business Management, University of Johannesburg, Johannesburg, South Africa
[g] Department of Business Administration, University of Verona, Via Cantarane 24, 37129 Verona, Italy

ARTICLE INFO

Article History:
Received 12 October 2023
Accepted 25 April 2024
Available online 2 May 2024

Keywords:
Future of work
Remote work
Digital creativity
Remote work self-efficacy
Remote work stress

JEL codes:
M00
M10
M12

ABSTRACT

The relationship between remote work and employee well-being represents a longstanding debate in the management literature, and it has been rekindled by the remote work adoption forced by COVID-19 lockdowns. Previous literature has shown that remote working can enhance flexibility and work–life balance under certain conditions. However, it can also be a source of increased stress, burnout, and greater work-to-family conflicts. The adverse effects are particularly relevant when remote work adoption is imposed by external conditions for both employees willing to adopt it and those who feel less comfortable with it. This study contributes to the debate by surveying 471 employees "forced" into remote work adoption because of COVID-19 lockdowns and by pinpointing three individual-level job resources that can affect stress in such a context. In particular, it shows that "future of work" job components are not a source of stress, as suggested by recent research, but a critical antecedent of remote working self-efficacy and a source of creativity in leveraging digital technologies in such a context.

Introduction

The International Labour Organization (ILO) launched the Future of Work (FOW) initiative in 2013, emphasizing the importance of facilitating the creation of decent work and enhancing social justice globally and in contemporary economies. Central to this initiative is recognition of the need to align the skills of the current workforce with the evolving demands of future jobs and markets, particularly those characterized by heavy use of information and communication technologies (ILO, 2019; Messenger et al., 2017). The ILO has expressed concern over the potential stress associated with FOW jobs because of their fast-evolving nature, in particular those increasingly reliant on ICTs (Messenger et al., 2017). The significance of mitigating stress, especially in the so-called alternative workplaces (e.g., Schäfer et al., 2023), resonates with the challenges presented by the growing dependence on ICTs and, more recently, remote work structures (ILO, 2020).

However, before policymakers had time to test and validate the existing solutions and regulations (Smallbone & Welter, 2020), the relevance of FOW components—such as digitalization and automation (Méda, 2019)—was heightened by the COVID-19 pandemic (Heath et al., 2024; Heidt et al., 2023; Wendt et al., 2022). Lockdowns forced workers to employ FOW solutions, such as massively employing ICTs to communicate and manage work-related knowledge (Kudyba, 2020). The measures adopted to face the pandemic, such as lockdowns, further accelerated the adoption of remote work (Singh et al., 2022). Consequently, not only did occupations with higher FOW components shift to a remote working setting but also employees who were not necessarily skilled in ICTs had to adapt to the sudden change through the use of digital platforms (Mariani & Nambisan, 2021; Saura et al., 2022). Policymakers worldwide have struggled to find the best response to the pandemic and post-pandemic context owing to the novelty of the situation (Haleem et al., 2020; Kuckertz et al., 2020). Now that emergency-related working practices and policies have generated their first results, it is time to

* Corresponding author at: Faculty of Economics and Management, Free University of Bozen-Bolzano, Piazza Università 1, 39100 Bolzano, Italy
E-mail address: sascha.kraus@zfke.de (S. Kraus).

https://doi.org/10.1016/j.jik.2024.100492

provide evidence-based feedback on what has been successful in order to prepare better actions for the future.

Against this background, researchers have examined the digitally enabled institutional arrangements' emergence and diffusion and their impact on work (Carter et al., 2015; Hinings et al., 2018; Kaihlanen et al., 2023). Previous research has tackled stress in remote working settings; however, after more than a decade of studies on the relationship between stress and remote work, the results are inconclusive (Perry et al., 2018). Moreover, the issue of diverging evidence has been rekindled by the COVID-19 pandemic (Sandoval-Reyes et al., 2021), and the negative effects of "forced" remote work have become salient (Sahut & Lissillour, 2023). Recent studies mostly focused on the environmental or contextual factors, such as work −life balance, that are negatively or positively affected by the stress − remote work nexus (Sandoval-Reyes et al., 2021).

Remote working arrangements in relation to FOW jobs represent new environments for work and entrepreneurship. In these emerging work landscapes, individuals may increasingly engage in entrepreneurial activities, leveraging digital technologies to create innovative solutions and ventures. This dynamic shift underscores the need for research on the impact of remote work on both traditional employment structures and entrepreneurial endeavors. As highlighted by Nambisan and Baron (2021), there is a dearth of studies focusing on remote work in the context of FOW jobs, warranting further investigation into the unique stressors and challenges faced by remote workers in entrepreneurial roles.

Moreover, to ensure the efficiency of entire industries characterized by a high level of FOW components in working activities, more indications are needed on what will potentially reduce stress and improve the well-being and mental health of people (Saura et al., 2022). This necessitates an understanding of the mechanisms underlying stress management in remote work settings, particularly in industries heavily reliant on digitalization and automation. As emphasized by Saura et al. (2022), prioritizing research efforts towards identifying effective stress management strategies is essential for enhancing the overall well-being and mental health of individuals engaged in remote work within FOW-driven industries.

To answer these calls, this paper embraces both the job demands −resources (JD-R) model (Demerouti et al., 2001) and conservation of resources theory (Hobfoll, 1989) to provide a better understanding of stress antecedents in remote working conditions. We conducted a survey based on a mixed approach of random and snowball sampling with a final sample of 471 workers. Our findings demonstrate that workers with a high level of FOW components in their job can also leverage a higher level of ICT creativity in their working activities. This latter, together with remote work self-efficacy, triggers stress reduction. These results have implications for both theory and policy.

From a theoretical point of view, the results contribute to the debate about the extension of the classic JD-R model (Bakker & Demerouti, 2007) by investigating the role of personal resources (Simbula et al., 2011) in reducing exhaustion and improving individual well-being (Xanthopoulou et al., 2007). From a policy point of view, our findings indicate that structuring new jobs incorporating FOW components and boosting digital creativity skills among its population can be important steps in creating conditions for healthier working environments and, ultimately, society.

Literature review and research hypotheses

The FOW initiative encompasses the ongoing transformation of work practices, organizational structures, and employment relationships in response to technological advancements, globalization, and shifting societal norms (Méda, 2019; Organisation for Economic Co-operation & Development [OECD], 2022; World Economic Forum [WEF], 2020). Therefore, FOW-related changes can be analyzed under several dimensions (Méda, 2019; Santana & Cobo, 2020). However, this study focuses only on the technological side of FOW and its relationship with job transformation.

ICT technologies have accelerated the obsolescence of existing workers' skills and the complete transformation of several categories of jobs (Frey & Osborne, 2017). Some of those jobs have disappeared or have entirely, incorporating aspects related to digitalization, automation, robotization, and artificial intelligence (Kraus et al., 2023; Santana & Cobo, 2020) in daily work activities and how jobs are performed. Therefore, these jobs, characterized by FOW components, require a specific set of skills, many of which are related to ICTs and digital skills (van Laar et al., 2017). The present study employs the terms FOW workers, FOW components, and FOW jobs to characterize when new digital technologies (Carnevale et al., 2020) and digital skills (van Laar et al., 2017) are strongly present in job activities and methods of working.

The increasing presence of FOW components can also be understood as a consequence of technological determinism owing to productivity increase (Méda, 2019). However, not all workers and entrepreneurs have chosen to adopt FOW and remote working arrangements willingly (Sandoval-Reyes et al., 2021). Owing to globalization, digitalization trends, and, lastly, the COVID-19 pandemic, many have been forced to transition to and remain in remote work contexts. In addition to technologically skilled workers, this transition relates to workers and entrepreneurs (Felicetti et al., 2023; Maran et al., 2022) without previously developed digital skills and with zero or insufficient opportunities to develop these skills, thereby leading to a greater risk of stress and burnout (Sahut & Lissillour, 2023).

Studies conducted on the relationship between remote work and stress are not unified in their position on this issue. Some studies have suggested that remote working conditions reduce occupational stress because of the increase in workers' job autonomy (Gajendran & Harrison, 2007; Pearlson & Saunders, 2001; Reyt & Wiesenfeld, 2015), better working conditions (Saura et al., 2022), and better work −life balance (Kreiner et al., 2009; Raghuram & Wiesenfeld, 2004; Taskin & Edwards, 2007). Conversely, others suggest that remote work can trigger greater occupational stress because of workers' unfamiliarity with the online working environment (Bartelt & Dennis, 2014) or feelings of isolation (Griffith et al., 2003; Staples et al., 1999). Consequently, those who find themselves engaging in remote work non-voluntarily (Sandoval-Reyes et al., 2021) and without provision of remote work educational support seem to be particularly vulnerable to stress arising from this situation (Bartelt & Dennis, 2014).

Having a high level of digital literacy or mastering digital skills is fundamental for facing the challenges of remote work (Battisti et al., 2022). In particular, digital creativity has been described as a critical skill in the context of FOW jobs, such as software development (Loveless et al., 2006). Creativity is based and allowed thanks to the antecedent circumstances, among which are cognition, motivation, personal characteristics, and knowledge (Lee et al., 2011), including ITC-related knowledge in the case of FOW workers. Studies that explain the relationship between stress and creativity have discussed how these two features can have a positive, negative, or non-linear dynamic relationship; they have primarily focused on the impact of stress upon creativity in this relationship (Byron et al., 2010; Luis et al., 2020; Teichner et al., 1963) rather than vice-versa, the impact of creativity on stress. Unlike average workers, those working in jobs with higher FOW components (Carnevale et al., 2020), namely, jobs affected radically by digitalization and globalization (OECD, 2022), already the ICTs' knowledge and are expected to keep pace with the development of technology in their field (WEF, 2020). They are familiar with the implementation of ICTs, and often they are accustomed to working with colleagues who, because of globalization, are not necessarily geographically close to them. In this respect, such workers are acquainted with both the software technology needed to work remotely and the ability to work with colleagues physically

separated from them by distance. Thanks to their understanding of technology and its working environment, workers in jobs with a high level of FOW components may also exhibit higher belief in their abilities to perform in a remote work context, perceiving higher self-efficacy. Self-efficacy, defined as a belief in one's own ability to perform a specific behavioral pattern (Bandura, 1978), is indeed a fundamental regulatory element affecting the behavior of individuals generally and also at the workplace (Wood & Bandura, 1989). Self-efficacy is said to be task-specific (Bandura, 1977, 1978). While ICT and remote work are two separate constructs with respect to self-efficacy (Staples, 1997), ICT knowledge is a precursor to one's ability to perform successfully in a remote work setting (Baroudi & Lucas, 1994; Handy, 1995; Staples, 1996; Staples et al., 1999). Moreover, previous research has found a significant negative relationship between self-efficacy and stress, demonstrating that low self-efficacy increases stress (e.g., Bandura, 1982; Saks, 1995). Therefore, it could be expected that FOW workers have higher self-efficacy and perceive lower stress in a remote work setting compared with workers who have been required to shift (e.g., because of the COVID-19 pandemic; see Meyer et al. (2022)) to remote working without specific or advanced ICT knowledge and without being accustomed to working with geographically distant partners. Based on this, we propose our first hypothesis:

H1. Workers involved in jobs with a high level of FOW components perceive lower stress in remote work settings thanks to their perception of higher remote work self-efficacy.

Research suggests that some of the cornerstones of occupations with higher FOW components, such as software development (Carnevale et al., 2020), are human knowledge and creativity (Evaristo, 2003). ICTs contribute to creativity and working with it is a creative process in itself (Meza et al., 2017; Nesti, 2017) that enriches learning opportunities for both FOW workers and end users (Wishart, 2014). For example, an FOW job entails employees working towards problem-based solutions, using problem-solving software coding, and having a broad knowledge of different platforms. Hence, broad knowledge of ICTs can be considered an antecedent of creativity-related digital skills; in other word, such broad knowledge represents the "skills to use ICT to generate new or previously unknown ideas, or treat familiar ideas in a new way" (van Laar et al., 2019, p. 583).

However, specific knowledge of ICTs, as a broader category of IT, also informs FOW workers' familiarity with the remote work institutional setting (Baroudi & Lucas, 1994; Staples, 1996; Staples et al., 1999) since remote work relies largely upon ICT solutions. As a matter of fact, remote or virtual work arrangements may lead to unexpected problems and higher levels of uncertainty that workers may face to complete their job because of the new digital technologies involved in day-to-day working activities (Adamovic et al., 2021). In such a context, workers' ability to employ ICTs creatively to provide "new and creative solutions" and "execute their task creatively" (van Laar et al., 2019, p. 94) is critical for their perception of self-efficacy in remote work since this is mainly built on successful past performance and mastery over specific situations or obstacles (Bandura, 1997). Further, workers' ability to leverage ICTs creatively can be viewed as a critical mastery or resource in Hobfoll's (1989) terms when facing a potentially stressful context characterized by ICT issues or failures (Illegems & Verbeke, 2004) and new routines and practices (Athanasiadou & Theriou, 2021). Therefore, because of FOW workers' ability to leverage ICTs creatively in most cases, they may demonstrate higher perceived self-efficacy in the remote work setting and ultimately experience lower stress. Based on this, we propose our second hypothesis:

H2. The positive relationship between being involved in a job with a high level of FOW components and the perception of remote working self-efficacy is mediated by workers' ability to leverage ICTs creatively, thereby further reducing stress.

Methodology

Sample and data collection

Data collection was performed between March 2020 and May 2021 during the peak of remote work deployment caused by the COVID-19 lockdowns all over Europe. A mixed approach of random and snowball sampling approach (Goodman, 2011) was adopted. First, we selected a random sample of respondents and contacted them by email. Then, we asked respondents to send the survey randomly among their professional contacts to maximize the sample size and overcome difficulties in accessing organizations and workers during a period of multiple lockdowns. From the first sample we received 143 answers for an initial response rate of 47.7 %. However, a final response rate was not traceable in the snowball phase of data collection. The final sample of 471 represents a reasonably balanced sample of workers in terms of gender, age, working role, working tenure, and industries (see Table 1).

Measures

All the theoretical constructs tested were drawn from the existing literature and adapted to the specific remote working context in order to enhance respondent focalization on this specific working arrangement. In the preliminary data analysis, exploratory factor analysis (EFA) with principal axis factoring and varimax rotation was employed to verify the general items' loadings. During this phase, one observation was dropped because it answered the constructs' questions with the same value repeatedly (1 in this case); hence, the condition was considered an

Table 1
Sample statistics and demographics.

Demographics	*n*	Percentage (%)
Female	225	47.8
Male	246	52.2
Total	471	100
Top manager	38	8.1
Middle manager	73	15.5
Clerk	358	76
Blue-collar worker	2	0.4
Total	471	100
PhD	7	1.5
Master	190	40.3
Bachelor	98	20.8
High school	173	36.7
Junior high	8	0.6
Total	471	100
Age (average)	37.1	
Tenure (average)	8.4	

Industry	*n*	Percentage (%)
Automotive	7	1.5
Bank and insurance	52	11.0
Chemical	2	0.4
Electronic	5	1.1
Fashion	17	3.6
Food and beverage	15	3.2
ICT and telecommunication	95	20.2
Logistics	10	2.1
Mechanical	22	4.7
Pharmaceutical	16	3.4
Retail	4	0.8
Services	66	14.0
Tourism	6	1.3
Utilities	11	2.3
Missing	2	0.4
Other	141	29.9
Total	471	100

outlier in the present study (Abbey & Meloy, 2017; Sullivan et al., 2021). Almost all the constructs' items displayed a factor loading higher than 0.7, which represents a good level of item reliability (Hair et al., 2014). Only two items—one in remote working stress (item loading of 0.587) and one in remote working self-efficacy (item loading of 0.636)—were lower than 0.7. However, given the sample size of 471, these could be considered significant factor loadings (see Hair et al., 2014); therefore, all items were retained in the analysis.

All constructs demonstrated good internal consistency, and all Cronbach's alphas were greater than 0.7 (see Table 2). The constructs employed are defined as follows:

Remote work stress (RWS): The 4-item scale by Motowidlo et al. (1986) measures how working stress is adapted to remote work settings. An example of an item is "When I work in remote work, very stressful things happen to me."

Remote work self-efficacy (RWE): The short self-efficacy 8-item scale from Schyns and von Collani (2002) was adapted to remote working activities. An example of an item is "If I am in trouble in remote work, I can usually think of something to do."

Digital creativity skill (DCS): This scale is based on four of the items from the 6-item scale of creativity proposed in a larger survey about twenty-first-century digital skills by van Laar et al. (2019). Examples of items are "At work, how often do you give a creative turn to existing processes using the internet?" and "At work, how often do you use the internet to generate innovative ideas for your field?"

Future of work job (FOW): This variable was built as a dummy, as follows. Respondents provided a detailed definition (open-ended answer) of their job position. Based on this definition, two of the authors labeled each job position as characterized by future of work components (FOW = 1) or not (FOW = 0). In the case of diverging coding, the divergences were discussed together with a third co-author and solved. To provide some examples, software developers, web developers, database administrators, and analysts were coded as job positions characterized by FOW components.

Control variables: As control variables, some demographics possibly linked with the development of digital skills and remote self-efficacy (e.g., age, degree) and the level of remote working stress (e.g., gender, managerial role) were considered. For example, age was considered a continuous variable. An educational degree was a dummy equal to 1 when at least a bachelor's degree was owned and 0 otherwise. A managerial role (labeled "manager") was equal to 1 when the person had a middle or top management role and 0 otherwise. Tenure was considered a continuous variable. Lastly, gender was a dummy equal to 1 when respondents reported being female and 0 otherwise.

Data analysis

The issue of common method variance (CMV) was controlled in this study by following best practice and procedural remedies (Podsakoff et al., 2003) during both the survey design and data collection. Further, the survey was built to ensure respondents' anonymity and avoid items with elements of social desirability, demand characteristics, and ambiguity (Podsakoff et al., 2003). Finally, the *ex-post*-CMV was tested employing Harman's single-factor test (Podsakoff et al., 2003). The one factor in the unrotated factor matrix explained 38.2 % of the variance, a great deal below the suggested 50 % threshold; this indicated that CMV bias was not a major issue for this study.

The presence of nonresponse bias was tested by comparing the different groups of early and late respondents with an analysis of variance (ANOVA). No significant differences were found between the two groups; therefore, nonresponse bias seemed not to be a significant problem in this study.

The hypotheses were tested employing multiple regression analysis with bootstrapped confidence intervals employing the PROCESS package (Hayes, 2022) in SPSS 28, and results are presented in Tables 3–6. Conducting multiple regression analysis with PROCESS is particularly suited to complex mediation analysis (e.g., Chen et al., 2022), even with dummy mediation, as in the present study. Moreover, the method is well-suited to calculate bootstrapped confidence intervals for each path, even if, as OLS method based on observed variables, it is not free from limitations concerning possible random measurement errors (Hayes et al., 2017). However, the reasonably strong Cronbach alphas (all above 0.85) indicated the absence of severe random measurement error.

Table 2
Means, standard deviations, inter-constructs correlations, and internal consistency.

Constructs	Mean	SD	Alpha	1	2	3	4
1. RWS	2.33	0.98	0.86	1			
2. RWE	3.96	0.74	0.91	−0.34**	1		
3. DCS	4.02	1.05	0.89	−0.08 n.s.	0.27**	1	
4. FOW	0.17	0.38	–	−0.10*	0.17**	0.14**	1

Noe: Alpha = Cronbach's alpha; SD = standard deviation.
** significant at $\alpha = 0.01$ (two-tailed),
* significant at $\alpha = 0.05$.
n.s not significant.

Table 3
Direct effect of FOW on DCS.

Outcome variable:	DCS					
Model summary						
R	*R*-sq	*MSE*	*F*	*df*1	*df*2	*p*
0.285	0.0811	1.0349	6.6903	6	455	0.000
Model						
	b	se	*t*	*p*	*LL*CI	*UL*CI
Constant	3.21***	0.23	13.72	0.0000	2.75	3.66
FOW	0.27*	0.13	2.09	0.0370	0.02	0.53
Controls						
Manager	0.27	0.19	1.4	0.1612	−0.11	0.64
Tenure	−0.02*	0.01	−2.37	0.0181	−0.03	0
Degree	0.2	0.1	1.96	0.0504	0	0.4
Age	−0.01	0.01	−0.86	0.3879	−0.02	0.01
Gender	−0.05	0.1	−0.47	0.6362	−0.24	0.15

Note: n.s. not significant;.
* $p < .05$; ** $p < .01$;
*** $p < .001$.

Table 4
Direct effects of FOW and DCS on RWE.

Outcome variable:	RWE					
Model summary						
R	*R*-sq	*MSE*	*F*	*df*1	*df*2	*p*
0.3802	0.1445	0.4784	10.9569	7	454	0.000
Model						
	b	se	*t*	*p*	*LL*CI	*UL*CI
Constant	2.93	0.19	15.49	0.0000	2.55	3.3
FOW	0.24**	0.09	2.69	0.0075	0.06	0.42
DCS	0.2***	0.03	6.16	0.0000	0.13	0.26
Controls						
Manager	−0.2***	0.13	−1.53	0.0000	−0.45	0.06
Tenure	0	0.01	0.14	0.1255	−0.01	0.01
Degree	0.14	0.07	1.95	0.8921	0	0.27
Age	0.01	0	2.55	0.0522	0	0.02
Gender	−0.2*	0.07	−2.99	0.0111	−0.33	−0.07

Note: n.s. not significant;.
* $p < .05$;.
** $p < .01$;.
*** $p < .001$.

Table 5
Direct effect of FOW and RWE on RWS.

Outcome variable:			RWS			
Model summary						
R	*R*-sq	*MSE*	*F*	*df*1	*df*2	*p*
0.3803	0.1446	0.8278	10.9645	7	454	0.0000
Model						
	b	se	*t*	*p*	*LL*CI	*UL*CI
Constant	4.26***	0.3	14.35	0.0000	3.68	4.84
RWE	−0.42***	0.06	−7.02	0.0000	−0.53	−0.3
Controls						
Manager	0.08	0.17	0.45	0.6553	−0.26	0.41
Tenure	0.02***	0.01	3.43	0.0007	0.01	0.04
Degree	0.09	0.09	0.92	0.3556	−0.1	0.27
Age	−0.02**	0.01	−2.72	0.0068	−0.03	0
Gender	0.13	0.09	1.44	0.1516	−0.05	0.3

Note: n.s. not significant;.
*$p < .05$;.
** $p < .01$;.
*** $p < .001$.

Table 6
Direct and indirect effect of FOW on RWS.

Direct and indirect effects of FOW on RWS				
Indirect effect(s) of X on Y				
	Effect	Boot*SE*	Boot*LL*CI	Boot*UL*CI
TOTAL	−0.1235	0.0375	−0.1998	−0.0532
Ind1	−0.1009	0.0361	−0.1743	−0.0334
Ind2	−0.0226	0.0110	−0.0462	−0.0025

Note: Indirect effect key:.
Ind1: FOW→RWE →RWS.
Ind2: FOW→DCS→RWE→RWS.

Results

Empirical analyses suggest that all the developed hypotheses found significant support in our data. The first hypothesis stated that workers involved in FOW jobs would perceive lower occupational stress in remote working activities (RWS), thanks to their perception of higher self-efficacy in performing their job remotely (RWE). The results (see Table 4) confirm a positive and significant relationship between FOW and RWE ($b = 0.24$, $p < .01$). Further, the empirical evidence (see Table 5) supports the existence of a negative and significant relationship between RWE and RWS ($b = -0.42$, $p < .01$). Moreover, the mediation analysis computed with bootstrapped upper (Boot*UL*CI) and lower (Boot*LL*CI) confidence intervals shows that the confidence interval of the negative indirect effect of FOW over RWS through RWE (effect = −0.1009) did not contain zero (Boot*LL*CI = −0.1743; Boot*UL*CI = −0.0334), demonstrating its significance.

The second hypothesis suggested that the positive relationship between being involved in an FOW job and the perception of RWE would be mediated by FOW workers' ability to leverage ICTs creatively (DCS), leading to a further reduction of remote working stress.

Results confirm this second hypothesis also. A positive and significant relationship was observed (see Table 3) between being involved in a job with high FOW and DCS ($b = 0.27$, $p < .05$), demonstrating that those workers, on average, were more creative in leveraging ICTs. Moreover, leveraging ICTs creatively was positively associated (see Table 4) with the perception of self-efficacy in remote working ($b = 0.20$, $p < .01$). Lastly, results from the mediation analysis (see Table 6) suggest that the negative indirect effect of FOW over RWS through DCS and RWE (effect = −0.0226) was significant (Boot*LL*CI = −0. 0462; Boot*UL*CI = −0. 0025).

The overall model illustrating the direct effects is presented in Fig. 1.

Discussion and conclusions

The recent COVID-19 pandemic has pushed the worldwide population toward a forced adoption of some elements constitutive of the FOW concept. That is, a vast majority of firms have adopted remote and virtual working solutions for the safety of their employees (Athanasiadou & Theriou, 2021). Before the pandemic occurred, the remote work setting could be chosen by those employees who felt more confident about using it (Adamovic et al., 2021). However, during the COVID-19 lockdowns, workers who were more reluctant and less confident about using ICTs were required to work from home also. This particular condition presents researchers with a valuable chance to contribute to the debate about the relationship between remote work and stress, as well as to provide practical implications.

Theoretical implications

Previous research has shown that voluntarily chosen remote work can reduce stress and increase work–life balance owing to increased workers' flexibility and reduced work–non-work interferences (Raghuram & Wiesenfeld, 2004). In contrast, other studies have shown that remote working may result in frustrating experiences because of ICTs' failures and problems (Illegems & Verbeke, 2004). Further, recent evidence on remote work during the COVID-19 pandemic has argued that "involuntary" remote working adoption—forced by lockdowns or by firms' safety concerns—results in higher stress levels and work-to-family conflicts, and burnout (Sahut & Lissillour, 2023). The present study follows the recent claim from empirical research on the relationship between stress and remote work, namely, that "it depends" (Perry et al., 2018), and aims to contribute to the debate by introducing the individual-level resources able to reduce stress in a forced remote work context.

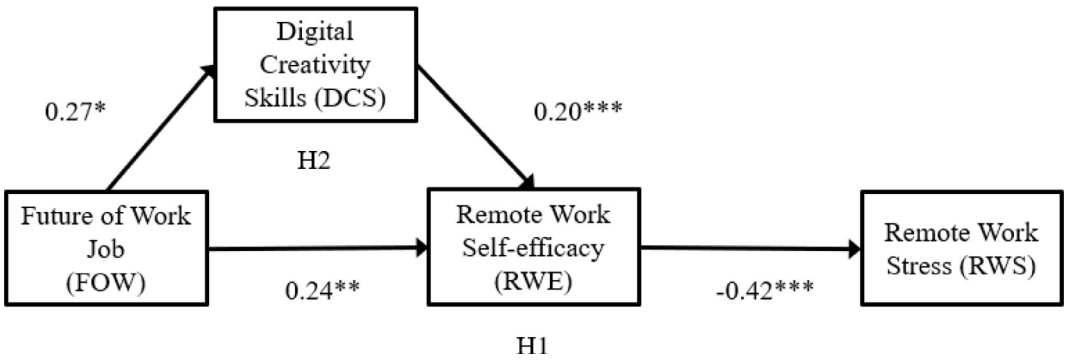

Fig. 1. Research model results.

Understanding personal resources is particularly relevant in the remote work context during the COVID-19 pandemic, which resulted in increased stress, burnout, and significant work-to-family conflict (Sahut & Lissillour, 2023). Our findings suggest that three job resources relate to enhanced stress coping in such a context. The first is a job resource deployable at both the organizational and task level (Bakker & Demerouti, 2007). It regards the FOW job components that behave as relevant individuals' level resources able to lower stress in the remote work context. In particular, FOW job components are antecedents of the other two individual-level resources. That is, a high level of FOW job components increases worker's perception of (1) self-efficacy in the remote work setting and, at the same time, is positively associated with (2) creativity in employing ICTs to generate new ideas and ways of doing things and to give a creative turn to existing processes (van Laar et al., 2019). This latter, together with employees' remote work self-efficacy, reduces the level of stress in remote work settings. Therefore, our study and results contribution to the literature is twofold.

First, the study has conceptualized and empirically verified that FOW job components act as a mediated antecedent of remote work stress reduction. Workers who are accustomed to a job with a high level of FOW components can leverage their experience and mastery of ICTs to be more creative in their deployment of digital technologies and provide an innovative edge to everyday activities and processes. At the same time, workers involved in FOW jobs perceive a higher level of remote work self-efficacy, which can act as a significant antecedent of stress reduction.

Second, our study contributes to the debate about remote work and stress, and it adds to the search for the contingencies under which remote work positively versus negatively affects employee stress. That is, it demonstrates that in a condition of generalized and non-voluntary adoption, three personal job resources can reduce the stress generated by an indiscriminate adoption. By determining these three personal resources, the study contributes to the extension of the classic JD-R model showing that individual-level context-specific skills and creativity are relevant antecedents of contextual self-efficacy, thus they reduce stress.

Practical implications

Messenger et al. (2017) warned that jobs with massive employment of ICTs may lead to a higher level of stress for workers in FOW jobs. The present study suggests that, on the contrary, those jobs provide workers with a chance to develop creativity in employing ICTs and higher remote work self-efficacy, resulting in lower stress levels. From a policy and managerial point of view, the present study provides insights into the significant role of FOW job components and digital skills in a context characterized by increasing levels of remote and virtual work arrangements. The findings suggest that jobs characterized by a higher level of ICT usage increase workers' digital creativity and self-efficacy. With this evidence at hand, managers and policymakers' agendas should prioritize employees' learning and development process toward higher levels of digital literacy, digital skills, and ICT deployments in their jobs. Workers' well-being seems to be strongly connected with their individual ability to cope with ICTs creatively, especially in remote work contexts, in which they must primarily rely on themselves and their own abilities to solve daily ICT-related issues and challenges.

Limitations and research agenda

Despite its contributions, this study was constrained by some limitations. First, employing self-reported perceptual data based on a single key informant during the same period may have weakened study validity, even though substantial precautions were taken to narrow common method bias. Second, the snowball sampling method might have led to data collection bias, despite randomization of the initial sample. However, several studies conducted during the same period of analysis applied a snowball sampling approach to increase the chance of reaching people working during lockdowns.

Future research can solve these issues by surveying multiple workers in the same organizations, employing longitudinal data collection, or randomly selecting all the respondents. Further, the present study has determined only two main aspects of the FOW. The first is FOW job-related components, or how widely and intensively ICTs are employed in such a job, and the second is workers' digital creativity. Future studies can investigate different FOW job characteristics, such as workers' other digital skills (e.g., communication, critical thinking), availability of flexible spaces in the office, and employment of more immersive technologies, such as augmented reality or metaverse.

CRediT authorship contribution statement

Ludovico Bullini Orlandi: Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Data curation, Conceptualization. **Jasna Pocek:** Writing – review & editing, Writing – original draft. **Sascha Kraus:** Writing – review & editing, Writing – original draft, Supervision. **Alessandro Zardini:** Writing – review & editing, Writing – original draft, Supervision, Project administration, Investigation. **Cecilia Rossignoli:** Writing – review & editing, Writing – original draft, Supervision, Conceptualization.

References

Abbey, J. D., & Meloy, M. G. (2017). Attention by design: Using attention checks to detect inattentive respondents and improve data quality. *Journal of Operations Management*, *53–56*(1), 63–70. doi:10.1016/j.jom.2017.06.001.

Adamovic, M., Gahan, P., Olsen, J., Gulyas, A., Shallcross, D., & Mendoza, A. (2021). Exploring the adoption of virtual work: The role of virtual work self-efficacy and virtual work climate. *The International Journal of Human Resource Management*, *33*(17), 3492–3525. doi:10.1080/09585192.2021.1913623.

Athanasiadou, C., & Theriou, G. (2021). Telework: Systematic literature review and future research agenda. *Heliyon*, *7*,(10) e08165. doi:10.1016/j.heliyon.2021.e08165 Article.

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, *22*(3), 309–328. doi:10.1108/02683940710733115.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191–215.

Bandura, A. (1978). Reflections on self-efficacy. *Advances in Behaviour Research and Therapy*, *1*(4), 237–269. doi:10.1016/0146-6402(78)90012-7.

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, *37*(2), 122–147. doi:10.1037/0003-066x.37.2.122.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. Macmillan.

Baroudi, J., & Lucas, H. C. (1994). The role of information technology in organization design. *Journal of Management Information Systems*, *10*(4), 9–23. doi:10.1080/07421222.1994.11518018.

Bartelt, V. L., & Dennis, A. R. (2014). Nature and nurture: The impact of automaticity and the structuration of communication on virtual team behavior and performance. *MIS Quarterly*, *38*(2), 521–538. doi:10.25300/misq/2014/38.2.09.

Battisti, E., Alfiero, S., & Leonidou, E. (2022). Remote working and digital transformation during the COVID-19 pandemic: Economic–financial impacts and psychological drivers for employees. *Journal of Business Research*, *150*, 38–50. doi:10.1016/j.jbusres.2022.06.010.

Byron, K., Khazanchi, S., & Nazarian, D. (2010). The relationship between stressors and creativity: A meta-analysis examining competing theoretical models. *Journal of Applied Psychology*, *95*(1), 201–212. doi:10.1037/a0017868.

Carter, C., Spence, C., & Muzio, D. (2015). Scoping an agenda for future research into the professions. *Accounting, Auditing & Accountability Journal*, *28*(8), 1198–1216. doi:10.1108/AAAJ-09-2015-2235.

Carnevale, J., Frese, M., Jack, S., Parker, S., & Wiklund, J. (2020). A better tomorrow? Work and well-being in the entrepreneurial society. https://www.researchgate.net/publication/338897796_Special_Issue_for_Journal_of_Business_Research_A_Better_Tomorrow_Work_and_Well-being_in_the_Entrepreneurial_Society (accessed December, 2022).

Chen, J., Simsek, Z., Liao, Y., & Kwan, H. K. (2022). CEO self-monitoring and corporate entrepreneurship: A moderated mediation model of the CEO-TMT interface. *Journal of Management*, *48*(8), 2197–2222. doi:10.1177/01492063211048436.

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, *86*(3), 499–512. doi:10.1037/0021-9010.86.3.499.

Evaristo, R. (2003). The management of distributed projects across cultures. *Journal of Global Information Management*, *11*(4), 58–70. doi:10.4018/jgim.2003100104.

Felicetti, A. M., Corvello, V., & Ammirato, S. (2023). Digital innovation in entrepreneurial firms: A systematic literature review. *Review of Managerial Science*, 1–48. doi:10.1007/s11846-023-00638-9.

Frey, C. B., & Osborne, M. A. (2017). The future of employment: How susceptible are jobs to computerisation? *Technological Forecasting and Social Change*, *114*, 254–280. doi:10.1016/j.techfore.2016.08.019.

Gajendran, R. S., & Harrison, D. A. (2007). The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences. *Journal of Applied Psychology*, *92*(6), 1524–1541. doi:10.1037/0021-9010.92.6.1524.

Goodman, L. A. (2011). Comment: On respondent-driven sampling and snowball sampling in hard-to-reach populations and snowball sampling not in hard-to-reach populations. *Sociological Methodology*, *41*(1), 347–353. doi:10.1111/j.1467-9531.2011.01242.x.

Griffith, T. L., Sawyer, J. E., & Neale, M. A. (2003). Virtualness and knowledge in teams: Managing the love triangle of organizations, individuals, and information technology. *MIS Quarterly*, *27*(2), 265. doi:10.2307/30036531.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2014). *Multivariate data analysis* (7th ed.). Pearson Education.

Haleem, A., Javaid, M., & Vaishya, R. (2020). Effects of COVID 19 pandemic in daily life. *Current Medicine Research and Practice*, *10*(2), 78–79. doi:10.1016/j.cmrp.2020.03.011.

Handy, C. (1995). Trust and the virtual organization. *Long Range Planning*, *28*(4), 126. doi:10.1016/0024-6301(95)94284-6.

Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. The Guilford Press.

Hayes, A. F., Montoya, A. K., & Rockwood, N. J. (2017). The analysis of mechanisms and their contingencies: PROCESS versus structural equation modeling. *Australasian Marketing Journal*, *25*(1), 76–81. doi:10.1016/j.ausmj.2017.02.001.

Heath, M. L., Williams, E. N., & Luse, W. (2024). Breaches and buffers: Can meaningful work impact turnover during COVID-19 pandemic? *Review of Managerial Science*, *18*(1), 83–104. doi:10.1007/s11846-022-00612-x.

Heidt, L., Gauger, F., & Pfnür, A. (2023). Work from home success: Agile work characteristics and the mediating effect of supportive HRM. *Review of Managerial Science*, *17*(6), 2139–2164. doi:10.1007/s11846-022-00545-5.

Hinings, B., Gegenhuber, T., & Greenwood, R. (2018). Digital innovation and transformation: An institutional perspective. *Information and Organization*, *28*(1), 52–61. doi:10.1016/j.infoandorg.2018.02.004.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, *44*(3), 513–524. doi:10.1037/0003-066X.44.3.513.

Illegems, V., & Verbeke, A. (2004). Telework: What does it mean for management? *Long Range Planning*, *37*(4), 319–334. doi:10.1016/j.lrp.2004.03.004.

International Labour Organization. (2019). *World employment and social outlook: Trends 2019*. International Labour Office.

International Labour Organization. (2020). [Review of the online guide *An employers' guide on working from home in response to the outbreak of COVID-19*, by International Labour Organization]. https://www.ilo.org/wcmsp5/groups/public/-ed_dialogue/-act_emp/documents/publication/wcms_745024.pdf

Kaihlanen, A. M., Laukka, E., Nadav, J., Närvänen, J., Saukkonen, P., Koivisto, J., et al. (2023). The effects of digitalisation on health and social care work: A qualitative descriptive study of the perceptions of professionals and managers. *BMC Health Services Research*, *23*(714). doi:10.1186/s12913-023-09730-y.

Kraus, S., Ferraris, A., & Bertello, A. (2023). The future of work: How innovation and digitalization re-shape the workplace. *Journal of Innovation & Knowledge*, *8*,(4) 100438. doi:10.1016/j.jik.2023.100438 Article.

Kreiner, G. E., Hollensbe, E. C., & Sheep, M. L. (2009). Balancing borders and bridges: Negotiating the work-home interface via boundary work tactics. *Academy of Management Journal*, *52*(4), 704–730. doi:10.5465/amj.2009.43669916.

Kudyba, S. (2020). COVID-19 and the acceleration of digital transformation and the future of work. *Information Systems Management*, *37*(4), 284–287. doi:10.1080/10580530.2020.1818903.

Kuckertz, A., Brändle, L., Gaudig, A., Hinderer, S., Morales, A., Prochotta, A., et al. (2020). Startups in times of crisis—A rapid response to the COVID-19 pandemic. *SSRN Electronic Journal*, *13*. doi:10.2139/ssrn.3580647.

Lee, D. S., Seo, Y. W., & Lee, K. C. (2011). Individual and team differences in self-reported creativity by shared leadership and individual knowledge in an e-learning environment. *Information-an International Interdisciplinary Journal*, *14*(9), 2931–2946. https://scholarworks.bwise.kr/skku/handle/2021.sw.skku/68970.

Loveless, A., Burton, J., & Turvey, K. (2006). Developing conceptual frameworks for creativity, ICT and teacher education. *Thinking Skills and Creativity*, *1*(1), 3–13. doi:10.1016/j.tsc.2005.07.001.

Luis, D. J., Ruth, C. J., & Zhuofan, Z. (2020). Does stress lead to creativity?: The relationship between occupational stress and individual innovative behavior. *Studies in Business and Economics*, *15*(1), 21–30. doi:10.2478/sbe-2020-0003.

Maran, T. K., Liegl, S., Davila, A., Moder, S., Kraus, S., & Mahto, R. V. (2022). Who fits into the digital workplace? Mapping digital self-efficacy and agility onto psychological traits. *Technological Forecasting and Social Change*, *175*, 121352.

Mariani, M. M., & Nambisan, S. (2021). Innovation analytics and digital innovation experimentation: The rise of research-driven online review platforms. *Technological Forecasting and Social Change*, *172*, 121009. doi:10.1016/j.techfore.2021.121009 Article.

Méda, D. (2019). Three scenarios for the future of work. *International Labour Review*, *158*(4), 627–652. doi:10.1111/ilr.12157.

Messenger, J., Vargas Llave, O., Gschwind, L., Boehmer, S., Vermeylen, G., & Wilkens, M. (2017). *Working anytime, anywhere: The effects on the world of work*. European Foundation for the Improvement of Living and Working Conditions. http://eurofound.link/ef1658.

Meyer, N., Niemand, T., Davila, A., & Kraus, S. (2022). Biting the bullet: When self-efficacy mediates the stressful effects of COVID-19 beliefs. *PloS One*, *17*,(1) e0263022. doi:10.1371/journal.pone.0263022 Article.

Meza, J., Ortiz, O., Vaca-Cardenas, M., Roman, S., & Monguet, J. M. (2017). CIR: Fostering collective creativity. In VincentiG. , BuccieroA. , HelfertM. , GlowatzM. (Eds.), *e-learning, e-education, and online training* (pp. 145–152). Springer International Publishing. doi:10.1007/978-3-319-49625-2_18.

Motowidlo, S. J., Packard, J. S., & Manning, M. R. (1986). Occupational stress: Its causes and consequences for job performance. *Journal of Applied Psychology*, *71*(4), 618.

Nambisan, S., & Baron, R. A. (2021). On the costs of digital entrepreneurship: Role conflict, stress, and venture performance in digital platform-based ecosystems. *Journal of Business Research*, *125*, 520–532. doi:10.1016/j.jbusres.2019.06.037.

Nesti, G. (2017). Living labs: A new tool for co-production? In BiselloA. , VettoratoD. , StephensR. , ElíseiP. (Eds.), *Smart and sustainable planning for cities and regions* (pp. 267–281). Springer International Publishing. doi:10.1007/978-3-319-44899-2_16.

Organisation for Economic Co-operation and Development. (2022). *Future of work*. https://www.oecd.org/future-of-work/#skills-and-learning

Pearlson, K. E., & Saunders, C. S. (2001). There's no place like home: Managing telecommuting paradoxes. *Academy of Management Perspectives*, *15*(2), 117–128. doi:10.5465/ame.2001.4615008.

Perry, S. J., Rubino, C., & Hunter, E. M. (2018). Stress in remote work: Two studies testing the demand-control-person model. *European Journal of Work and Organizational Psychology*, *27*(5), 577–593. doi:10.1080/1359432X.2018.1487402.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879–903. doi:10.1037/0021-9010.88.5.879.

Raghuram, S., & Wiesenfeld, B. (2004). Work-nonwork conflict and job stress among virtual workers. *Human Resource Management*, *43*(2–3), 259–277. doi:10.1002/hrm.20019.

Reyt, J. N., & Wiesenfeld, B. M. (2015). Seeing the forest for the trees: Exploratory learning, mobile technology, and knowledge workers' role integration behaviors. *Academy of Management Journal*, *58*(3), 739–762. doi:10.5465/amj.2013.0991.

Sahut, J. M., & Lissillour, R. (2023). The adoption of remote work platforms after the COVID-19 lockdown: New approach, new evidence. *Journal of Business Research*, *154*, 113345. doi:10.1016/j.jbusres.2022.113345 Article.

Saks, A. M. (1995). Longitudinal field investigation of the moderating and mediating effects of self-efficacy on the relationship between training and newcomer adjustment. *Journal of Applied Psychology*, *80*(2), 211–225. doi:10.1037/0021-9010.80.2.211.

Sandoval-Reyes, J., Idrovo-Carlier, S., & Duque-Oliva, E. J. (2021). Remote work, work stress, and work–life during pandemic times: A Latin America situation. *International Journal of Environmental Research and Public Health*, *18*(13), 7069. doi:10.3390/ijerph18137069.

Santana, M., & Cobo, M. J. (2020). What is the future of work? A science mapping analysis. *European Management Journal*, *38*(6), 846–862. doi:10.1016/j.emj.2020.04.010.

Saura, J. R., Ribeiro-Soriano, D., & Saldaña, Z. P. (2022). Exploring the challenges of remote work on Twitter users' sentiments: From digital technology development to a post-pandemic era. *Journal of Business Research*, *142*, 242–254. doi:10.1016/j.jbusres.2021.12.052.

Schäfer, B., Koloch, L., Storai, D., Gunkel, M., & Kraus, S. (2023). Alternative workplace arrangements: Tearing down the walls of a conceptual labyrinth. *Journal of Innovation & Knowledge*, *8*,(2) 100352.

Schyns, B., & von Collani, G. (2002). A new occupational self-efficacy scale and its relation to personality constructs and organizational variables. *European Journal of Work and Organizational Psychology*, *11*(2), 219–241. doi:10.1080/13594320244000148.

Simbula, S., Guglielmi, D., & Schaufeli, W. B. (2011). A three-wave study of job resources, self-efficacy, and work engagement among Italian schoolteachers. *European Journal of Work and Organizational Psychology*, *20*(3), 285–304. doi:10.1080/13594320903513916.

Singh, P., Bala, H., Dey, B. L., & Filieri, R. (2022). Enforced remote working: The impact of digital platform-induced stress and remote working experience on technology exhaustion and subjective well-being. *Journal of Business Research*, *151*, 269–286. doi:10.1016/j.jbusres.2022.07.002.

Smallbone, D., & Welter, F. (2020). Introduction: Why we need a different research agenda on entrepreneurship policy. In SmallboneD. , & WelterF. (Eds.), *A research agenda for entrepreneurship policy*. Edward Elgar Publishing. doi:10.4337/9781786430946.00007.

Staples, D. S. (1996). *An investigation of some key information technology-enabled remote management and remote work issues* [Paper presentation]. In *Proceedings of the Australasian Conference on Information System*. Hobart, Tasmania: University of Tasmania. doi:10.3127/ajis.v4i2.362.

Staples, D.S. (.1997). The management of remote workers: An information technology perspective [Unpublished doctoral dissertation], University of Western Ontario, London, Canada.

Staples, D. S., Hulland, J. S., & Higgins, C. A. (1999). A self-efficacy theory explanation for the management of remote workers in virtual organizations. *Organization Science*, *10*(6), 758–776. doi:10.1287/orsc.10.6.758.

Sullivan, J. H., Warkentin, M., & Wallace, L. (2021). So many ways for assessing outliers: What really works and does it matter? *Journal of Business Research*, *132*, 530–543. doi:10.1016/j.jbusres.2021.03.066.

Taskin, L., & Edwards, P. (2007). The possibilities and limits of telework in a bureaucratic environment: Lessons from the public sector. *New Technology, Work and Employment*, *22*(3), 195–207. doi:10.1111/j.1468-005x.2007.00194.x.

Teichner, W. H., Arees, E., & Reilly, R. (1963). Noise and human performance, a psychophysiological approach. *Ergonomics*, *6*(1), 83–97. doi:10.1080/00140136308930678.

van Laar, E., van Deursen, A. J. A. M., van Dijk, J. A. G. M., & de Haan, J. (2017). The relation between 21st-century skills and digital skills: A systematic literature review. *Computers in Human Behavior*, *72*, 577–588. doi:10.1016/j.chb.2017.03.010.

van Laar, E., van Deursen, A. J. A. M., van Dijk, J. A. G. M., & de Haan, J. (2019). Determinants of 21st-century digital skills: A large-scale survey among working professionals. *Computers in Human Behavior*, *100*, 93–104. doi:10.1016/j.chb.2019.06.017.

Wendt, C., Adam, M., Benlian, A., & Kraus, S. (2022). Let's connect to keep the distance: How SMEs leverage information and communication technologies to address the COVID-19 crisis. *Information Systems Frontiers*, *24*(4), 1061–1079. doi:10.1007/s10796-021-10210-z.

Wishart, J. (2014). The development of a scale to assess creative collaboration via online tools. In *Proceedings of the International Workshops on Web-Based Learning, ICWL 2012—KMEL, SciLearn, and CCSTED* (pp. 320–329). doi:10.1007/978-3-662-43454-3_33.

Wood, R., & Bandura, A. (1989). Social cognitive theory of organizational management. *The Academy of Management Review*, *14*(3), 361. doi:10.2307/258173.

World Economic Forum. (2020). *The future of jobs report 2020*. https://www3.weforum.org/docs/WEF_Future_of_Jobs_2020.pdf

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, *14*(2), 121–141. doi:10.1037/1072-5245.14.2.121.