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Caught Unprepared: Consequences of Getting Full Online During a Pandemic

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Abstract

Although the concept of remote working is not new, and it has been in use for a while, billions of people and workplaces were caught in surprise during the COVID-19 pandemic. Due to full-scale lockdowns people got stuck with their family members. And in a very short time they were expected to set up home-offices and continue working. Balancing family relations with daily work schedule was hard for many. Drawing on a sample of instructors, this study investigates how people felt and dealt with it. Homogeneous purposive sampling technique was employed. The authors contacted with people from their network and asked them to fill in the online questionnaires. The people contacted also help to reach others in their network and consequently a total of 435 people participated. Most of the sample is comprised of university instructors (44.4%); followed by secondary school (22.8%), primary school (18.6%), and high school teachers (14.3%). We developed a theoretical model based on boundary theory and study the relationships among eWork-Life interferences with technostress and psychological well-being. The results supported our hypotheses and we found that timely IT assistance might decrease the felt technostress. Implications and further study suggestions are made accordingly.

Keywords: Remote working, COVID-19, Boundary Theory, eWork-Life, technostress, burnout.

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Introduction

Technology has altered the spirit of occupations and created opportunities to work in different areas, including working from home long before the recent pandemic. But the Covid-19 pandemic has led to an unprecedented surge in the use of digital technologies. The urgent need for social distancing norms and nationwide lockdowns almost in every country caught businesses in surprise. People and organizations all over the world have had to adjust to new ways of work and life in a very short notice (De, Rahul, & Pandey, 2020). Billions of people started to work online from home leaving all family members literally confined in under one roof. Additionally, "these new emerging patterns of work" is a sign of transition that will continue to accelerate in near future (p.1). Recently, there has estimated a rise in the number of e-workers all around the world. It is projected that 1.2 billion remote workers will be employed globally by 2021 (Dragano & Nico, 2020). Many companies, who are willing to create savings for businesses, now have a remote ability to partner through other versatile choices. Smart technology currently provides the opportunity to work remotely, which has contributed to programs not just at work but families in the home. Many workers with or without family have been worried about the effectiveness of their jobs and lifestyles. Remote working with technology is regarded to provide convenience and to look at the well-being of employees, including the integration of work-life, cost reduction and efficiency (Kodama, 2020). Albeit its facilitation in every aspect of work, technology has also brought certain side effects. Work-related stress is related to mental health conditions, such as depression and burnout. Due to extensive study for decades, the essential facets of work that cause stress and stress-related diseases have been subject to various significant stressors (Zhong & Hao, 2016). These may be divided in general into factors, including working hours or staff interactions, as well as social relationships with employers, peers and superiors. In comparison, technology as a cause of stress has not long been at the forefront of job stress studies (Yener *et al.*, 2020). With the modern revolution, this has shifted. Innovations are omnipresent in most sectors and occupations, and their dissemination has a fundamental influence on corporate processes, connectivity, business models, management of work and relationships to the workforce. These transitions would almost certainly have impacts on individual employees. It is necessary to consider these facets of the digitalization processes from a job-health and safety standpoint, which result in work pressures and therefore, can affect mental health (Venkatesh, 2020).

Studies report that most people want more likely to remain with their employer if they work flexibly (Davidescu *et al.*, 2020). Also, strong work satisfaction scores were noticed on a remote basis. For example, it was seen that the high degree of happiness of domestic workers (Abrams, 2019). This may be connected to the versatility of working time in contrast with more static day hours and the freer running time. It is also noticed that the 'open' period of remote work for other tasks

would increase. However, any "extra-time" was not always spent on additional leisure but was filled with housework or other paying labour, particularly for women (Feng & Savani, 2020). Remote employment for both workers and staff is a beneficial influence. However, time saved could be diverted in some situations to further practice as opposed to rehabilitation.

Remote working has detrimental consequences. For example, while working from a distance can relieve tension, e-workers have discovered that work-life overlap, reducing therapeutic effects in the home (Feng & Savani, 2020). As limits fall, it can result in a mixed working and non-working lives, working hours and loss of leisure time being a negotiation between employers and workers. Although telecom can increase the morale of employees and minimize absenteeism, helping employees maintain, it cannot improve family-work disagreements. While there is an increasing understanding of potential negative consequences from remote working, studies and practices continue to advance in this field. With recent pandemic, there are calls for more studies regarding these issues. For example, Venkatesh (2020:1) suggests looking for the COVID's impacts on jobs - i.e., job loss, job changes, job outcomes, coping, and support - and five research directions related to COVID's impact on home life - i.e., home life changes, children, life-related outcomes, social life, and support. The goal of this article is, therefore, to study the far-reaching impacts of employment, work-life balance, and well-being on the three relevant research fields (Grant & Anne, 2019) during the recent pandemic.

Boundary Theory

The present study is grounded on Boundary Theory recurrently used hypothetical background to explain the differences and issues that come with work and life (Allen *et al.*, 2014; Kreiner *et al.*, 2009). Boundary theory points towards the manner which people generates and sustains limitations with the interaction between life and work roles (Allen *et al.*, 2014; Ashforth *et al.*, 2000). Explaining work–life interference, this theory is considered as the connection of work and personal life, and the outcomes in the hospitality industry. Drawing on boundary theory (Ashforth *et al.*, 2000; Clark, 2000), individuals may establish boundaries between work and life or home domains and use different strategies to manage these boundaries. Individuals tend to divide their work and life domains into two parts (Rothbard *et al.*, 2005) and protect the more important domain from spilling out to the other (Clark, 2000). Previous research have made extensive research using boundary theory in Western contexts, where they examined and confirmed how culture impacts is different from boundary changeovers and that management of boundary strategies (Allen *et al.*, 2014; Kreiner *et al.*, 2009), and also, the Chinese context. Researchers like Sun, Köseoglu, and Okumus, (2020), in their study explored how lifestyle hospitality and tourism entrepreneurs were able to cope with work life demands. This study used the Boundary theory to explain how

eWork-life interference will affect technostress and subsequently psychological wellbeing. Owing to this theory, the quest to separate eWork and life interferences will help manage the effect of technostress on individuals.

So far, the use of this theory in educational sector in the Middle East context, and Turkey in particular is lacking and needs more exploration. The predilections for work and family vary for different people meaning that their inclinations to make distinctions between their work and family issues are not equal to the preferences to keep their family domain away from work (Methot & LePine, 2016). Thus, the influence of work interference on family typically differs from the influence of family interference on work for different people.

Literature Review

The Relationship Between eWork-Life Interference and Technostress

Work-life interference is inter-role conflict that interferes with work demand and family demand. Defining the concept of what constitute remote working has no clear specific definition (Madsen, 2011). The term has been defined by several scholars as a teleworking and telecommunicating, also as e-working (Morgan, 2004) by moving work to employee instead of the employee moving to the work. The two-way directions of conflict have been connected with negative result that reduces job satisfaction, increases depression and absenteeism (Craig & Mullan, 2010). The effect of e-working is positively related to several factors: reductions in work-life conflict, improvement in job satisfaction and in some cases improve productivity. Although many research have linked the subject e-work to insufficient communication channel, employee poor well-being and most times negligence of duty which has indirectly resulted to low work effectiveness (Roloff & Fonner, 2010; Barber & Santuzzi, 2015).

Working remotely from home, has its own implications with normal life, also the stress that comes with the use of IT (technostress). According to Maier *et al.* (2015), some specific applications are associated with social network stress. One way to stop the stress that emanates from technology is to minimize or stop the use (Maier *et al.* 2015). Several studies have related technostress several outcomes, performance reduction, low productivity, reduced job satisfaction and increase burnout (Tu & Ragu-Nathan 2010; Tarafdar et al 2020). Also, studies have linked technostress to voluntary use (social media site) and involuntary use that is compiled by circumstances.

Severally literature have divided technostress into different dimension, take for instance the study of Brod (1984) mentioned that technostress includes work overload, a person life invasion, complexity of technology and crisis with occupation. However, Tarafdar *et al.*, (2007); Hwang and Cha (2018) validated

the developed five techno-stress components to take into account the real-life event at work with the use of technology. The five dimensions include (1) techno-overload, this is the feeling that an employee has that he/she is working faster than usual. This usually leads to fatigue and other related health issues such as cumulative disorder that affects the person's waist and hands because of two much siting and movement of the hand. (2) Techno-invasion, this is a feeling that work life is interfering with personal life, an employee has to scarify personal life. Because employee work schedule is not tied to office alone, making the boundary between work and personal life to be fuzzy and impossible for employees to break out. (3) Techno-complexity, the complexity that ICT environment is a complex environment that makes employees to look incompetent. Here instructors are mandated to learn a new skill that is bound to change (Hwang & Cha 2018). Teaching with technology is becoming more complicated and overwhelming for the instructor by stressing their roles and affecting their mental state. This in the long run will affect instructor's performance (Jena 2015; Brooks & Califf, 2017). (4) Techno-insecurity, the fear that an employee will lose the job to a competent hand because of the massive development of technology. Here instructors are frequently under pressure and anxiety in using the computer for their daily job (Wang, Shu & Tu, 2008). (5) Techno-uncertainty, this is the stress that is posed by the constant changes, upgrades in technology both in the software and the hardware for the end users (Marchiori, Mainardes & Rodrigues, 2019; Wang, Shu & Tu, 2008). Often certain qualifications are required from the employee making the work expectation to be ambiguous. Boundary theory stipulates that work and non-work life should be differentiated (Ashforth, Kreiner & Fugate, 2000). Addressing the mental state, (Piszczek & Berg, 2014) and understanding the electronic communications contributes to boundary theory because employees will like a balance between work and personal life. Derks *et al.* (2015), studied smartphone and work-home interference adopting the boundary theory, workers that are engaged with their job will be able to prevent work from encroaching on personal life.

Take for instance the COVID 19 that forced many organizations with no choice than for the employees to work remotely (Bartsch et al, 2020). For the assumption above, we develop the following hypothesis, thus:

H1: eWork-life interference has a positive relationship with technological stress.

The Relationship between Technostress and Psychological Well Being

According to Brod (1984), the term technostress is the inability to cope with new and modern computer technologies in a healthy manner. In another view, Ragu-Nathan et al (2008) saw technostress as the stress that manifest due to end users work overload. The frequent use of technology as a result of working from home of most employees due to the pandemic experience has increased the

severity of technostress. The study of Nimrod (2018) found out that technostress has a long term negative effect on the older ones mental health. In the same view, Charles *et al.* (2013) opined that the frequent use of technology has a negative effect on individual mental health. Since the outbreak of the COVID-19, most jobs if not all were moved to online including education (teaching of all levels), this has caused an increase in the over usage and over dependence on technology as a result, affecting employee psychological wellbeing.

Several studies have related the consequences of technostress to negatively associate with employee happiness (Salanova *et al.* 2014; Brooks, 2015) and psychological responses: for instance, employee exhaustion, role conflict, job dissatisfaction, decrease in organizational productivity, lowing employee commitment and also increase in fatigue (Tarafdar *et al.* 2010, 2011; Ayyagari *et al.* 2011; Salanova *et al.* 2013; Jena, 2015). Although the ability to manage time and making technology user friendly have been proposed as a yardstick to combat technostress (Ayyagari *et al.* 2011). Personality and psychological variables is of pivotal to technology consumption (Roberts & Pirog 2013), pointing out that certain psychological trait has the tendencies of making employee either to withstand stress or vice versa (Ebstrup *et al.* 2011).

The use of technology has been linked with an enhancement in well-being (Berryman, Ferguson & Negy, 2018). While some noteable scholars found a link between psychological wellbeing and the use of technology, pointed to the fact that technology reduces people of all age's psychological wellbeing (Lin *et al.* 2016; Lobel *et al.* 2017). Although some argue that the time spent on the use of technology and what people do with technology matters most (Lin *et al.* 2016). With the arguments, this study proposed that technostress will have a negative effect on employees, therefore the hypothesis thus:

H2: Technostress will have a negative effect on employee psychological wellbeing.

The Mediading Role of Technostress

Work–Life interferences is the intersection of work and personal life. One of the most important concerns facing today's work force is the hunt to balance work related issues, personal and family life is increasingly being recognized (Hall & Richter, 1988). This interference can be adverse in nature. E-work is frequently connected with the progressive effects of upgraded efficiency, a supple approach of engaging in work related activities, a decrease in work-life clash and an increase in job satisfaction, many of which can be mediated by a lessening in the use of computer to aid a better equilibrium between work and non-working lives (Grant *et al.*, 2013; Roloff and Fonner, 2010). The consequence of technostress has created impact in most workplaces and organization. Some of the studies

include, but not limited to, examining technostress in government institutions (Fuglseth & Sorebo, 2014), academicians (Jena, 2015), teachers (Al-Fudail & Mellar, 2008) among employees in several sectors. Globally, and locally, cultural changes have affected the lifestyles of the people (Haddon, Hede, & Whiteoak, 2009). Although technology has tremendous potential to improve the delivery of services, it also changes the responsibilities of frontline service employees. In past studies according to Barber and Santuzzi, (2015), Grant *et al.*, (2013) e-working-life is associated with, pressure in place of work, communication excess, and a deprived well-being all of which may result to over-working. The negative effect of eWork-life interference on wellbeing could be as a result of technostress. Consequently, the current study uses technostress as a mediating construct, to explain the underlying mechanism and process by which eWork-life interference affects psychological wellbeing of employees.

The increasing implementation of digital technology is changing the essence of services fundamentally (Van Doorn et al., 2017). In this relationship, technostress is considered to act as a mediating variable in the association between eWork-life interference and psychological wellbeing. Technostress is a kind of stress experiences by individuals due to their use of information and communication technologies, this engagement in information and communication technology leading to increased stress levels (Ayyagari, Grover, & Purvis, 2011). Some researchers have confirmed technostress as an antecedent (Christ-Brendemühl, & Schaarschmidt, 2020; Kumar, Singh, & Bhuchar, 2017; Ayyagari, Grover, & Purvis, 2011), and an outcome variable (Tarafdar, & Ragu-Nathan, 2010; Christ-Brendemühl, & Schaarschmidt, 2020) in many relationships. In the above references, technostress was predicted by job demand and job resources, and in the same model technostress predicted customer satisfaction, customer delight and electronic word of mouth (Christ-Brendemühl, & Schaarschmidt, 2020). In the work of Tarafdar, and Ragu-Nathan, (2010), they examined technostress as a predicting variable by end-user computing domain and predicted psychotically and behavioral strain. Joo, Jim and Kim (2016), in their study on technostress using secondary school teachers in South Korea, 312 participants were used, the result shows that technostress plays a significant role in mediating between TPACK, intention to use technology and school support. Also, technostress serves as a mediating variable between sleep quality and depression, their result failed to find a stand to support the assumption (Goddard, 2011). Similarly, a study conducted in Italy shows that the three sub-factors of technostress (techno-invasion, techno-overload, and techno-complexity) mediates the relationship between workload and behavioral stress (Molino et al. 2020).

Against the backdrop and in line with the Boundary theory technostress can act as a mediating variable in the above models. Owing to the present model,

technostress is an outcome variable to eWork-life interference and an antecedent construct to psychological wellbeing. We can then posit that the following hypothesis will hold:

H3. Technostress will mediate the relationship between eWork-life interference and psychological wellbeing.

The Moderating Impact of IT Support

Support service activity is needed to produce a successful execution of a process, program, or product. Information technology (IT) supports are usually considered as any activity that provides assistance of any kind with the use of technology. Currently, IT plays a major role within organization transmission of information effectively prepared in order for organizations to thrive concentrating on systems and instruments rather than on exchanging information.

Undoubtedly, IT is an accessible and powerful tool and system that can be used to exchange information and foster organizational processes (Jalilvand, Pool, Khodadadi, & Sharifi, 2019). This study aims to investigate the moderating effect of IT support on the relationship between technostress and psychological wellbeing, based on the study's hypothesis, technostress will have a negative effect on psychological wellbeing. Boundary theory suggests that personal tactics and individual perceptions is important to decrease work intrusions and family boundaries (Clark, 2000; Kreiner, Hollensbe & Sheep 2009). Additionally, boundary theory as defined by Kossek *et al.* (2012), is the control over individual perception to manage the boundaries that occur between work and family. This current study tests the personal tactics and situational antecedents influence on ICT demands. From this perspective, ICT demands, that is having access to work outside the office on daily bases (Day *et al.* 2012). Individual with high boundary will have a better approach and be able to differentiate work life from personal life (Piszczek, 2017). Therefore, in Boundary theory, individuals try to manage the interference between work and life issues which will in turn reduce technostress. Furthermore, the introduction of IT support in the model is hypothesized to reduce the negative effect of technostress on psychological wellbeing of employees. Every organization introduces a good IT support service to facilitate businesses and consumer's actions in carrying their tasks. According to the above explanations we propose thus

H4: IT support will moderate the negative effect of technostress on psychological well-being.

Methodology

Sample

The recent pandemic caused a myriad of people to work remotely. So, almost all the sample was consisting of the instructors and teachers working online at the time of the study. Homogeneous purposive sampling technique was employed. This type of sample consists selected members for having a shared characteristics or set of characteristics (SOURCE). The authors contacted with people from their network and asked them to fill in the online questionnaires. The people contacted also help to reach others in their network and consequently a total of 446 people participated. After eliminating 11 questionnaires due to high number of missing data, 435 were used as the last sample. The demographics of the sample are given in *Table 1*. The majority of the sample is comprised of university instructors (44.4%); followed by secondary school (22.8%), primary school (18.6%), and high school teachers (14.3%). Among them, 69.2% is married and 60% has at least one child. More than half of the sample (70.6%) comes from government schools or universities. The predominant tenure range is 0-5 years (32%), followed by 6-10 years (25.3%), 11-15 years (19.8%), 16-20 years (10.8%), and lastly greater than 20 years (12.25).

Table 1. Demographics

Children		
	Frequency	Percent
No	174	40.0
Yes	261	60.0
Total	435	100.0
Marital Status		
	Frequency	Percent
Single	134	30.8
Married	301	69.2
Total	435	100.0
Workplace		
	Frequency	Percent
Private	128	29.4
Government	307	70.6
Total	435	100.0
SchoolType		
	Frequency	Percent

Primary	81	18.6
Secondary	99	22.8
Highschool	62	14.3
College	193	44.4
Total	435	100.0
Tenure		
	Frequency	Percent
0-5	139	32.0
6-10	110	25.3
11-15	86	19.8
16-20	47	10.8
>20	53	12.2
Total	435	100.0

Research Design

To avoid common method bias (CMB), first the wording of the questions was evaluated by Turkish teachers for clarity, conciseness, and accuracy to prevent misunderstanding (Rodriguez-Ardura and Meseguer-Artola, 2020) by the contributors. Then, snowball sampling technique was employed. Lastly, Harman's single-factor test is also run to detect CMB. For that, all the scale items were included into an exploratory factorial analysis with an unrotated factor solution where eigenvalues greater than one could explain the aggregate variance. The results show a variance of 34.85% which is below than 50% as suggested in literature (Rodriguez-Ardura and Meseguer-Artola. 2020). Jamovi 1.2.25 and SPSS v23 with Heyes' Process Macro v3.4 were used for all the analyses. All indicators in the scales were measured on five-point Likert-type scales ranging from 1 (strongly disagree) to 5 (strongly agree).

Measurements

eWork-Life Interference Scale: The scale utilized for this study was a sub-factor from the original five factor scale (e-Work Life Scale) developed by Grant *et al.* (2019). Because a Turkish version of the scale was not available, a translation and back-translation procedure were conducted followed by a confirmatory factor analysis (CFA) to determine the structure of the translated 7-item scale (example item, "I feel that work demands are much higher when I am e-working remotely."). However, one item was omitted due to low loading. The 6-item version of the scale had satisfactory fit values for a single-factor structure ($\chi 2(7)=26.2$, $p<0.001$; $\chi 2/df=3.74$; TLI=0.948; CFI=0.976; SRMR=0.0410; RMSEA=0.0794 and $\alpha=0.76$). The one factor's loadings range from 0.63 to 1.25.

Techno-stress Scale: Developed by Tarafdar *et al.* (2007) the scale was adapted to Turkish by Türen *et al.* (2015). After a CFA analysis, the original four-factor structure was confirmed with 18 items (example item, "I am forced by this technology to work with very tight time schedules."). The four-factor version of the scale had satisfactory fit values for a single-factor structure ($\chi2(129) = 383$, $p<0.001$; $\chi2/df=2.97$; TLI=0.953; CFI=0.960; SRMR=0.0452; RMSEA=0.0672 and $\alpha=0.93$). The four factors' loadings range from 0.46 to 1.05.

Organizational ICT Support Scale: Developed by Day *et al.* (2012), the scale has eight items and two factors. A Turkish version of the scale was not obtainable. Thus, a translation and back-translation procedure were conducted. The CFA analysis confirmed the same results as the original one; a two-factor with eight items (example item, "My organization implements appropriate software as it becomes available."). The scale had satisfactory fit values for a single-factor structure ($\chi2(18)=65.6$, $p<0.001$; $\chi2/df=3.64$; TLI=0.977; CFI=0.985; SRMR=0.0248; RMSEA=0.0780 and $\alpha=0.94$). The two factors' loadings range from 0.88 to 1.05.

Warwick-Edinburgh Mental Well-Being Scale: Developed by Tennant *et al.* (2007) and adapted to Turkish by Keldal (2015), the scale is comprised of 14 items with a single structure. The CFA analysis revealed similar results with 14 items (example item, "I have been dealing with problems well."). The scale had satisfactory fit values for a single-factor structure ($\chi2(36)=155$, $p<0.001$; $\chi2/df=4.31$; TLI=0.957; CFI=0.972; SRMR=0.0253; RMSEA=0.0873 and $\alpha=0.96$). The one factor's loadings range from 0.65 to 0.86.

Results of Hypothesis Tests

Before conducting the hypothesis tests, correlation analyses were run to see how the variables are related to each other. *Table 2* lists the descriptive statistics and inter-scale correlations. As predicted, eWLI ($r=-0.17$, $p < 0.01$) and TS ($r=-0.20$, $p < 0.01$) are negatively, whereas ICTs is positively and significantly ($r=0.40$, $p < 0.01$) correlated with PWB.

Table 2. Descriptive statistics, and inter-scale correlations

	X	SD	1	2	3	4
1-PWB	3.98	0.78	1			
2-eWLI	3.16	0.72	-0.17**	1		
3-TS	2.87	0.68	-0.20**	0.49**	1	
4-ICTs	3.56	0.93	0.40**	-0.07	-0.01	1
**. Correlation is significant at the 0.01 level (2-tailed); n=435						

PWB=Psychological Well-being; eWLI=eWork-Life Interference; TS=Technostress; ICTs=ICT support

By using Process macro version 3.4. in SPSS, the hypothesis tests were conducted. The resulting coefficients and model summary information can be found *Table 3*. It appears that the more eWork-Life Interference the instructors endure, the more negative the technostress they feel (a = 0,463). This concludes the first hypothesis as predicted. Furthermore, from mediated moderation analysis conducted using ordinary least squares path analysis, eWork-life interference indirectly influenced psychological well-being of the instructors through its effect on technostress they felt during the lockdowns. As can be seen in *Table 3*, participants said that the use of ICTs at home to give lectures remotely in such a short notice without enough preparations could spoil their fragile balance of work-life and thus, contribute to the distress they felt due to inadaptability to a full ICT supported lecturing (a = 0.463), and consequently, their psychological well-being would be more negatively influenced by the technostress they felt (b_1 = -0.721). Additionally, there was no evidence that eWork-life interference influenced psychological well-being independent of its effect on technostress (c′ = -0.068, p = 0.205). Thus, hypotheses three and four are substantiated.

The study offered organizational ICT support as a remedy to reduce the technostress levels of the instructors during their eWorking period. The model provided enough evidence by the statistically significant and positive interaction between M and V in the model of Y (b_3 = 0.190). Additional analysis, based on 5000 bootstrap sample, gave results for bias-corrected bootstrap confidence intervals for moderation effects. These results are demonstrated in *Table 4*. As it can be seen, the negative effect of technostress is mitigated with the increase of ICT support they obtain from their organizations. The last hypothesis is also confirmed.

The last point that needs to be underlined is how the demographical variables might affect the results. For that, every available (covariates from C_1 to C_6) demographic variable is included into the ordinary least squares path analysis. In the first model, except for workplace (β=-0.204) and school type (β=-0.053), the covariates have no impact. Instructors working in government schools and irrespective of the school type seem to feel less technostress. Additionally, again very slightly, primary and secondary school teachers (school types 1 and 2) appear to be more prone to technostress. In the second model this time, only instructors with long tenure are less affected by technostress and thus, have slightly higher psychological well-being (β= 0.010).

Table 3. Direct and Indirect Effects with Mediation and Moderation Results

		Model 1						Model 2				
		M (TS)			95% CI			Y (PWB)			95% CI	
Antecedent		Coeff.	*SE*	*p*	*LLCI*	*ULCI*		Coeff.	*SE*	*p*	*LLCI*	*ULCI*
X (eWLI)	a	0.463	0.039	*< 0.001*	0.386	0.539	c'	-0.068	0.053	*0.205*	-0.173	0.037
M (TS)							b_1	-0.721	0.199	*< 0.001*	-1.311	-0.53
V (ICTs)							b_2	-0.189	0.142	*0.183*	-0.469	0.089
M X V							b_3	0.190	0.050	*< 0.001*	0.092	0.289
C_1(CHILD)	f_1	-0.182	0.081	*0.026*	-0.341	-0.022	g_1	-0.050	0.097	*0.607*	-0.241	0.141
C_2 (GENDER)	f_2	0.078	0.059	*0.188*	-0.038	0.193	g_2	-0.025	0.069	*0.717*	-0.163	0.111
C_3 (MERITAL)	f_3	-0.003	0.081	*0.968*	-0.163	0.156	g_3	0.065	0.096	*0.501*	-0.124	0.254
C_4 (WORKPLACE)	f_4	-0.204	0.065	*< 0.01*	-0.331	-0.077	g_4	-0.047	0.078	*0.552*	-0.2	0.107
C_5 (SCHOOLTYPE)	f_5	-0.053	0.024	*< 0.05*	-0.099	-0.007	g_5	-0.004	0.029	*0.879*	-0.06	0.059
C_6 (TENURE)	f_6	0.003	0.004	*0.52*	-0.005	0.01	g_6	0.010	0.005	*< 0.05*	0.001	0.019
Constant	i_1	1.753	0.156	*< 0.001*	1.446	2.06	i_2	5.498	0.589	*< 0.001*	4.339	6.657
		R^2 = 0.289						R^2 = 0.233				
		F(7.427)=	24.76	p < 0.001				F(10.424)=	12.44	p < 0.001		

n=435; PWB=Psychological Well-being; eWLI=eWork-Life Interference; TS=Technostress; ICTs=ICT support.

Table 4. Bootstrapping results of moderation effects

	ICTs	Effect	BootSE	Boot LLCI	Boot ULCI	
TS	2.631	-0.195	0.049	-0.288	-0.099	
	3.561	-0.113	0.034	-0.179	-0.047	
	4.491	-0.031	0.032	0.096	0.031	
ICTs values in conditional column are the mean and +/- SD from the mean.						

To reflect a better illustration of the moderation effects, the visual graphic is provided below. In *Figure 1*, the more technostress increases, the more psychological well-being is affected negatively when there is low ICT support. On the other hand, even if technostress increases, the availability of high ICT support helps the psychological well-being raise. The amount of raise seems rather low, but the context where instructors are in, the pandemic is going on, and uncertainty is very high the distress they feel might be unbearable.

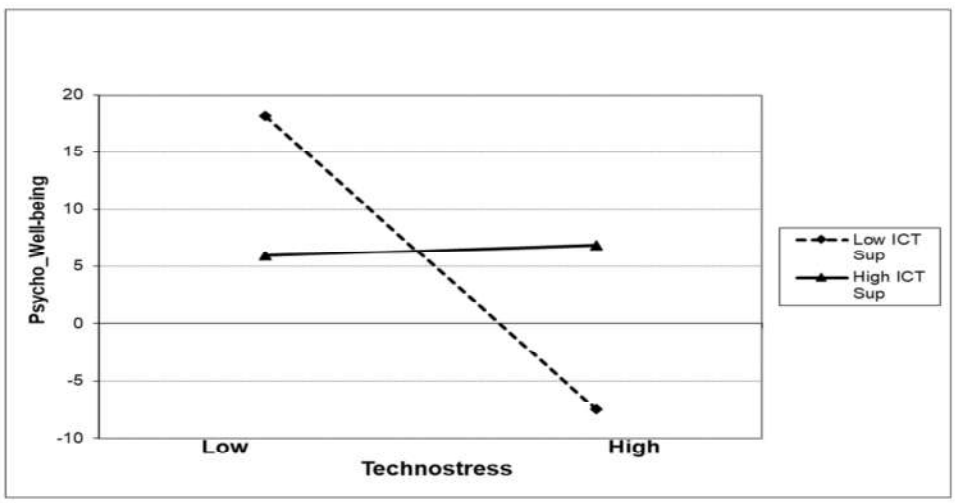

Figure 1. The Illustration of moderating effect

Discussion

The recent pandemic changed almost everything in a very short time. The time to adapt to this new reality and continue working was a tough challenge for businesses. The industries that have experience in remote working was lucky and they quickly took precautions and organized for it. However, a great majority was unprepared and was caught in surprise. The e-learning technologies were already in use and most of the schools, particularly the universities, were practicing with it for quite a while in form of blended or full programs (Asarta & Schmidt, 2020). Thus, it was wise to think that at least universities could be the ones to adapt to this new challenges and developments. However, as seen during the last few months, the readiness level for these institutions were also varied (Papagiannidis *et al.*, 2020). Some were very good as some were still striving. The case for the instructors were also similar. Younger generation was the quickest to adapt while older ones endured. It was also reported that gender differences created unfair conditions for women. Children were at home as well and usually it was the task of females to take care of them. Interestingly, there were opposing views that argued this situation created an advantage for women. For them, it was revealed that improved control by teleworking contributed to a lower incidence of female depression. Telecommunications could give women the freedom to manage their jobs. Therefore, they could engage in their careers and family life and have a better sense of well-being (Raziq & Abdul, 2015). But according to our findings however, having children affected both genders. This might be explained partly by the fact that usually in these types of Turkish families both parents are working, and the responsibilities are shared equally as much as possible. The main challenge here appears to be the short time to adapt to and continue with usual jobs as if nothing has happened. The instructors faced a multi-faceted dilemma globally. They tried to transform their homes as their new offices, while continue with house-hold choirs and taking care of their kids. To balance the unbearable psychological pressure and fear created by ambivalence of the contagious disease and the perpetual uncertainty were really a challenge. Additionally, not only the employees but also the managers were having hard time to balance this new life. Based on a recent KPMG American Worker pulse survey[5] the managers seemed to have been caught unprepared then the employees. The survey revealed that 72 % of upper management workers' and 66 % of middle managers' jobs have become more demanding in this new work arrangement. They found it even more challenging to establish a work/life balance during the global pandemic (63 %) as compared to employees (47 %) in non-managerial positions.

The findings supported our assertion with regards to eWork-life Interference – technostress relationship. This might most likely due to unpreparedness to work under this type of extensive lockdown. Individual differences in ICT skills may

[5] Workers are adapting to remote working – but what about management? (techhq.com)

also count. As mentioned above, younger generations are keener with technology then the older ones. In our sample, we controlled it with tenure. The smaller the tenure the smaller the age. Tenure represented their teacher experience in years. And in Turkish educational system, usually tenure is closely related to the age. But unexpectedly, the results indicate a significant effect on behalf of the older and experienced instructors. They seem to be more prepared particularly when they get assistance from the IT departments. This contradictory situation could be explained by pedagogical experience. The tenured instructors may have alternative strategies for these types of crises and because they have experience, they could prepare lectures very quickly for e-learning environments. And additionally, due to their large-scale network, they could be able to take care of their children and adapt quickly to the lockdowns more efficiently.

The results also point the so-called "digital surge" (Barnes, 2020) as one of the main causes of technostress. Instructors with children and additionally, those who are working at private institutions are more prone to the effects of technostress. The school type also contributed to the negative perception and particularly those working at primary, middle, and high schools. It seems instructors at universities are less affected. The remote working and teaching infrastructure of universities are more advanced than those of low-level education institutions and so are the private institutions. The IT support also seem to be influential because those who received support are less affected (*Figure 1*).

Effectiveness of jobs can be described as the assessment of employee results. It has now been accepted that workers aiming to increase job performance and competitiveness by adopting remote working activities benefit from multiple advantages. These include improved employee happiness, a positive effect on the efficiency calculated according to the quality and quantity of work generated, decreased regional limits on the workforce available and greater employee loyalty to the employer (Raziq & Abdul, 2015). But as the results of this study indicate this could be provided with right technical support and with the right time.

Remote work may have resulted in greater flexibility for the e-worker and lower stress levels, but this can depend on the position of the employee, and management of workload. Remote employees may create difficulties in gaining trust and adjusting their work habits with supervisors. For example, managers may need to change their job habits to adapt to the discrepancies related to off-site work. Self-employed telephone operators had less oversight than those who had traditionally had face-to-face relations with their bosses. This survey concluded that the job background mediated by the influence of telecommunication and that recurring managing role such as sales could be more successful (Mulki & P, 2015). The socio-technical systems perspective regards remote working as a context where its characteristics should fit the new way of working to achieve better performance and well-being (Belanger *et al.*, 2013; Bentley *et al.*, 2016). Wang *et al.* (2020) point out unintended outcomes when there is no match between

the virtual work characteristics and individual and/or task requirements. They add that "work-to-family conflicts could occur where there are intolerable job demands and limited autonomy for remote workers during home days" (p.7). A "helpful" and supportive environment is valuable, at least at the beginning. Some scholars even argue providing not only technical but also certain extend of social support (Bentley *et al.*, 2016). The COVID-19 outbreak caused people to work from home irrespective of their preferences, abilities, and the nature of their jobs Wang *et al.*, 2020). They also highlighted the need to study more on this context issue because as they claim the relevant literature has mainly focused on impacts of virtual work characteristics on well-being.

Like some of few studies (Bentley *et al.*, 2016), our results highlight the importance of technical support in mitigating stress and strain (technostress). This type of support could be very useful both by releasing the tension of abrupt change in working context and helping workers to perceive they are valued.

Theoretical Implications

This new normal is a dual dimensional issue. The first is the new social context that blurs the boundaries of work-life and the other is merely technical. The surge to shift to remote work for billions of people suddenly overloaded the internet infrastructure. Some organizations have already had experiences and they know what to do in case of that happens. But the majority do not. Most get caught unprepared. Let aside the infrastructure, for most of the organizations, the technicians lagged to assist people at their homes. What is more, the vagueness caused by the pandemic added fuel to the tension created by these shortages. Lastly, scholars like Bentley *et al.* (2016) draw attention to the danger of isolation as well.

For certain people, remote work might create a release from the office time constraints. However, the sudden change of working contexts of millions of people unexpectedly traumatized every aspects of their lives. Most people found themselves involuntarily adapting to "this new normal" life and adjusting to this new working context with low technical capacities that caused a great deal of technostress. Likewise, some research on work/life management, sex and remote working suggest mostly negative impacts (Molino *et al.*, 2020). This showed that while teleworking enables the dual function of childcare in combination with remote working, personal recreation advocacy requires little time. That expectations among genders are different during a series of interviews with remote employees and their co-residents (partners). Our study used the technostress lens to investigate this issue but as some of the scholars in the same field argue the socio-technical perspective should also be taken into consideration. Thus, more studies are required that investigate this issue through social as well as technical point of view.

Practical Implications

Although it has long been central to IT scholars' interest, technostress is continuing to pose a serious health threat. As our results indicate, it appears that technical support is effective in relieving the stress at least caused by technology. Some studies already pointed out its prominence for effective coordination with the central office and co-workers (Bentley *et al.*, 2016). Thus, it is imperative to provide sufficient assistance to help people to survive and get them to adapt even facing these types of pandemic conditions.

Yet there are still growing worries particularly after the pandemic that people will be hit while operating remotely by their mental health and well-being. Research indicates that always on and technologically available when operating at a distance leads to work and non-work boundaries being disregarded, mainly working from home. In a 2017 United Nations study (ILO-Eurofound Report, 2017), 41% of remote staff report elevated levels of tension compared to just 25% of employees.

Limitation and further Research

Like other studies, our research also has certain limitations. Due to its cross-sectional design, it is impossible to claim causation. Additionally, the sample only consist of instructors. Employees from other sectors might perceive remote working differently. Another interesting study topic can be to look further if people feel and perceive the same after they get adapted. Are their technostress levels the same? Or has it decreased? Do their psychological well-being improved after a while due to spending more time with their family members? Has limited or not socialization added up to their strain levels? More studies are needed from socio-technical perspective. Our study found that experienced instructors seem to be more adapted to work from home. Similarly, Sullivan (2020) reported that young people find remote working much harder than older employees in England. Irrelevant of the sectors, this might be likely due to perceptions of being constrained and confined into homes. But more evidence is required.

Conclusion

Technological development has influenced the way we collaborate, connect, study and function in the last three decades. ICTs are described as technologies that offer access to information over telecommunications like the internet, cellular networks, mobile phones, and other communication media. While ICTs increase efficiency and collaboration opportunities at work, they do not only establish adaptation needs for the employees and activities but also in the physical and organizational sense. Job is no longer related to a certain period or position, and this can have detrimental effects on the health of employees. For example,

intense ICT usage takes more time and speed of operation, increases multitasking, which induces routine delays and overexposure to data that can cause anxiety and irritation, which can lead over time to burnout. Everything is feasible with modern technologies. There are undoubtedly advantages, but a variety of setbacks remain. With remote work being a common occurrence for everyone, businesses need to adjust and enforce the right strategies to ensure that their workers do not feel part of the team and burn out (Fischer & Thomas, 2017).

References

Abrams, Z. (2019). The future of remote work. *Monitor on Psychology*, *50*(9), 54.

Allen, T.D., Cho, E., & Meier, L.L., (2014). Work–family boundary dynamics. *Annu. Rev. Organ. Psychol. Organ. Behav. 1* (1), 99-121.

Al-Fudail, M., & Mellar, H. (2008). Investigating teacher stress when using technology. *Computers & Education, 51*(3), 1103-1110, DOI: 10.1016/j.compedu.2007.11.004.

Asarta, C.J., & Schmidt, J.R. (2020). The effects of online and blended experience on outcomes in a blended learning environment. *The Internet and Higher Education, 44,* 100708.

Ashforth, B.E., Kreiner, G.E., & Fugate, M. (2000). All in a day's work: boundaries and micro role transitions. *Acad. Manag. Rev., 25* (3), 472–491.

Ayyagari, R., Grover, V., & Purvis, R. (2011). Technostress: Technological antecedents and implications. *MIS Quarterly, 35*, 831-858.

Barber, K.L. & Santuzzi, A.M. (2015). Please respond ASAP: workplace telepressure and employee recovery. *Journal of Occupational Health Psychology*, *20*(2), 172-189, Doi: 10.1037/ a0038278.

Barnes, S. (2020). Information management research and practice in the post-COVID-19 world. *International Journal of Information Management, 55*, 102175, DOI: 10.1016/j.ijinfomgt.2020.102175.

Bartsch, S., Weber, E., Büttgen, M., & Huber, A. (2020). Leadership matters in crisis-induced digital transformation: how to lead service employees effectively during the COVID-19 pandemic. *Journal of Service Management* [Online First].

Belanger, F., Watson-Manheim, M.B., & Swan, B.R. (2013). A multi-level socio-technical systems telecommuting framework. *Behaviour and Information Technology, 32*(12), 1257-1279.

Bentley, T.A., Teo, S.T.T., McLeod, L., Tan, F., Bosua, R., & Gloet, M. (2016). The role of organisational support in teleworker wellbeing: A socio-technical systems approach. *Applied Ergonomics, 52*, 207-215.

Berryman, C., Ferguson, C. J., & Negy, C. (2018). Social media use and mental health among young adults. *Psychiatric quarterly*, *89*(2), 307-314.

Brod, C. (1984). *Technostress: The human cost of the computer revolution*. London: Addison Wesley.

Brooks, S. (2015). Does personal social media usage affect efficiency and well-being? Comput. *Hum. Behav., 46*(2015), 26-37.

Brooks, S. & Califf, C. (2017). Social media-induced technostress: Its impact on the job performance of it professionals and the moderating role of job characteristics. *Computer Network, 114*, 143-153.

Charles, S.T., Piazza, J. R., Mogle, J., Sliwinski, M.J., & Almeida, D.M. (2013). The wear and tear of daily stressors on mental health. *Psychological science, 24*(5), 733-741.

Christ-Brendemühl, S., & Schaarschmidt, M. (2020). The impact of service employees' Technostress on customer satisfaction and delight: A dyadic analysis. *Journal of Business Research*, *117*, 378-388.

Clark, S. (2000). Work/family border theory: a new theory of work/family balance. *Human Relations, 53* (6), 747-770.

Davidescu, A. A., Apostu, S. A., Paul, A., & Casuneanu, I. (2020). Work Flexibility, Job Satisfaction, and Job Performance among Romanian Employees - Implications for Sustainable Human Resource Management. *Sustainability*, *12*(15), 6086.

Day, A., Paquet, S., Scott, N., & Hambley, L. (2012). Perceived information and communication technology (ICT) demands on employee outcomes: The moderating effect of organisational ICT support. *Journal of occupational health psychology, 17*(4), 473.

De, Rahul, N., Pandey, & Pal, A. (2020). Impact of Digital Surge during Covid-19 Pandemic: A Viewpoint on Research and Practice. *International Journal of Information Management*, 102171.

Derks, D., Duin, D., Tims, M., & Bakker, A. B. (2015). Smartphone use and work–home interference: The moderating role of social norms and employee work engagement. *Journal of Occupational and Organizational Psychology, 88*, 155-177, DOI: 10.1111/joop.12083.

Dragano, & Nico. (2020). Technostress at work and mental health: concepts and research results. *Current Opinion in Psychiatry*, *33*(4), 407-413.

Ebstrup, J. F., Eplov, L. F., Pisinger, C., & Jørgensen, T. (2011). Association between the Five Factor personality traits and perceived stress: is the effect mediated by general self-efficacy? *Anxiety, Stress & Coping*, *24*(4), 407-419.

Feng, Z., & Savani, K. (2020). Covid-19 created a gender gap in perceived work productivity and job satisfaction: implications for dual-career parents working from home. *Gender in Management: An International Journal [Online First]*.

Fischer, T., & Riedl, R. (2017). Technostress research: A nurturing ground for measurement pluralism? *Communications of the Association for Information systems, 40*(1), 17.

Fuglseth, A. M., & Sørebø, Ø. (2014). The effects of technostress within the context of employee use of ICT. *Computers in Human Behavior, 40*, 161-170, DOI: 10.1016/j.chb.2014.07.040.

Goddard, M.S. (2011). *Sleep quality, technostress, and maladaptive use of technology: Predictors of depression among college students* [Doctoral Dissertation, the University of Memphis]. BiblioBazaar, https://books.google.com.tr/

Grant, C.A. & Anne, C. (2019). Construction and initial validation of the E-Work Life Scale to measure remote e-working. *Employee Relations, 41*(1), 16-33.

Grant, C.A., Wallace, L.M. & Spurgeon, P.C. (2013). An exploration of the psychological factors affecting remote e-worker's job effectiveness, well-being and work-life balance. *Employee Relations, 5* (35), 527-546, DOI: 10.1108/ER-08-2012-0059

Haddon, B., Hede, A., & Whiteoak, J. (2009). *WLB: Towards an integrated conceptual framework*. www.anzam.org. Retrieved October, 2, 2020 from http://www.anzam.org/wp-content/uploads/pdf-manager/1294_ HADDON_BARBARA-362.PDF.

Hall, D. T., & Richter, J. (1988). Balancing work life and home life: What can organisations do to help? *Academy of Management Executive, 2*(3), 213-223, DOI: 10.5465/ ame.1988. 4277258.

Hwang, I. & Cha, O. (2018). Examining technostress creators and role stress as potential threats to employees' information security compliance. *Computer in Human Behavior, 81*, 282-293.

ILO-Eurofound Report (2017). *Working anytime, anywhere: The effects on the world of work.* Publications Office of the European Union, Luxembourg, and the International Labour Office, Geneva.

Jalilvand, M. R., Pool, J. K., Khodadadi, M., & Sharifi, M. (2019). Information technology competency and knowledge management in the hospitality industry service supply chain. *Tourism Review*, *74*(4), 872-884, DOI: 10.1108/TR-04-2018-0054.

Jena, R.K. (2015). Technostress in ICT enabled collaborative learning environment: An empirical study among Indian academician. *Computers in Human Behavior, 51*, 1116-1123, DOI: 10.1016/j. chb.2015.03.020.

Joo, Y.J., Lim, K.Y., & Kim, N.H. (2016). The effects of secondary teachers' technostress on the intention to use technology in South Korea. *Computers & Education, 95*, 114-122, DOI: 10.1016/j.compedu.2015.12.004.

Keldal, G. (2015). Turkish version of the Warwick-Edinburgh Mental Well-Being Scale: A validity and reliability study. *The Journal of Happiness & Well-Being, 3*(1), 103-115.

Kodama, M. (2020). Digitally transforming work styles in an era of infectious disease. *International Journal of Information Management, 55*, 102172.

Kossek, E. E., Ruderman, M. N., Braddy, P. W., & Hannum, K. M. (2012). Work–nonwork boundary management profiles: A person-centered approach. *Journal of Vocational Behavior, 81*(1), 112-128, DOI: 10.1016/j.jvb.2012.04.003.

Kreiner, G.E., Hollensbe, E.C., & Sheep, M.L., (2009). Balancing borders and bridges: negotiating the work-home interface via boundary work tactics. *Acad. Manag. J. 52* (4), 704-730.

Kumar, P., Singh, P. P., & Bhuchar, V. (2017). A study of Technostress in relation to job satisfaction, job performance and mental health among I.T. professionals. *International Journal of Education and Management Studies*, *7*(3), 403-407.

Lin, L.Y., Sidani, J.E., Shensa, A., Radovic, A., Miller, E., Colditz, J. B., ... & Primack, B. A. (2016). Association between social media use and depression among U.S. young adults. *Depression and anxiety, 33*(4), 323-331.

Lobel, A., Engels, R. C., Stone, L. L., Burk, W. J., & Granic, I. (2017). Video gaming and children's psycho-social well-being: A longitudinal study. *Journal of youth and adolescence, 46*(4), 884-897.

Madsen, S.R. (2011). The Benefits, Challenges, and Implication of Teleworking: A Literature Review. *Journal of Culture and Religion, 1*(1), 148-158.

Maier, C., Laumer, S., Weinert, C., & Weitzel, T. (2015). The effects of Technostress and switching stress on discontinued use of social networking services: A study of Facebook use. *Information Systems Journal*, *25*(3), 275-308.

Methot, J.R. & LePine, J.A. (2016). Too Close for Comfort? Investigating the Nature and Functioning of Work and Non-work Role Segmentation Preferences. *Journal of Business and Psychology, 31*(1). 1-24.

Molino, M., Ingusci, E., Signore, F., Manuti, A., Giancaspro, M. L., Russo, V., ... & Cortese, C. G. (2020). Wellbeing Costs of Technology use during Covid-19 remote working: An investigation using the Italian translation of the technostress creators scale. *Sustainability*, *12*(15), 5911.

Morgan, R. E. (2004). Teleworking: an assessment of the benefits and challenges. *European Business Review, 16*(4), 344-357.

Mulki, & P, J. (2015). Leadership style, salesperson's work effort and job performance: the influence of power distance. *Journal of Personal Selling & Sales Management, 35*(1), 3-22.

Nimrod, G. (2018). Technostress: measuring a new threat to well-being in later life. *Aging & mental health*, *22*(8), 1086-1093.

Papagiannidis, S., Harris, J., & Morton, D. (2020). WHO led the digital transformation of your company? A reflection of IT related challenges during the pandemic. *International Journal of Information Management,* 102166.

Piszczek, M. M, & Berg, P. (2014). Expanding the boundaries of boundary theory: Regulative institutions and work–family role management. *Human Relations, 67*(12), 1491-1512, DOI: 10.1177/0018726714524241.

Raziq, & Abdul. (2015). Impact of working environment on job satisfaction. *Procedia Economics and Finance*, *23*, 717-725.

Roberts, J. A., & Pirog III, S. F. (2013). A preliminary investigation of materialism and impulsiveness as predictors of technological addictions among young adults. *Journal of Behavioral Addictions*, *2*(1), 56-62.

Rodriguez-Ardura, Inma, & Antoni Meseguer-Artola. How to prevent, detect and control common method variance in electronic commerce research. *Journal of theoretical and applied electronic commerce research, 15*(2) (2020): i-v.

Roloff, M.E. & Fonner, K.L. (2010). Why teleworkers are more satisfied with their jobs than are office-based workers: when less contact is beneficial. *Journal of Applied Communication Research, 38*(4), 336-361, DOI: 10.1080/00909882.2010.513998.

Ragu-Nathan, T.S., Tarafdar, M., Ragu-Nathan, B.S., & Tu, Q. (2008). The consequences of Technostress for end users in organisations: Conceptual development and empirical validation. *Information Systems Research, 19*, 417-433.

Rothbard, N. P., Phillips, K. W., & Dumas, T. L. (2005). Managing multiple roles: Work-family policies and individuals' desire for segmentation. *Organization Science, 16*, 243-258

Salanova, M., Llorens, S., & Cifre, E. (2013). The dark side of technologies: Technostress among users of information and communication technologies. *International Journal of Psychology, 48*(3), 422-436.

Salanova, M., Llorens, S., & Ventura, M. (2014). Technostress: The Dark Side of Technologies. In C. Korunka & P. Hoonakker (Eds.), *The impact of ICT on quality of working life* (pp. 87-103). Dordrech: Springer.

Sullivan, A. (2020). *Young people finding remote working much harder than older employees*. ifamagazine.com. Retrieved December, 1, 2020 from https://ifamagazine.com/article/young-people-finding-remote-working-much-harder-than-older-employees/

Sun, X., Xu, H., Köseoglu, M. A., & Okumus, F. (2020). How do lifestyle hospitality and tourism entrepreneurs manage their work-life balance? *International Journal of Hospitality Management*, *85*, 102359.

Tarafdar, M., Maier, C., Laumer, S., & Weitzel, T. (2020). Explaining the link between technostress and technology addiction for social networking sites: A study of distraction as a coping behavior. *Information Systems Journal*, *30*(1), 96-124.

Tu, Q., & Ragu-Nathan, T. S. (2010). Impact of Technostress on end-user satisfaction and performance. *Journal of Management Information Systems, 27*, 303-334, DOI: 10.2753/MIS0742- 1222270311.

Tarafdar, M., Tu, Q., Ragu-Nathan, B.S., & Ragu-Nathan, T.S. (2007). The Impact of Technostress on Role Stress and Productivity. *Journal of Management Information Systems, 24*(1), 307-334.

Tarafdar, M., Tu, Q., & Ragu-Nathan, T. S. (2010). Impact of technostress on end-user satisfaction and performance. *Journal of Management Information Systems, 27*(3), 303-334.

Tarafdar, M., Tu, Q., Ragu-Nathan, T. S., & Ragu-Nathan, B. S. (2011b). Crossing to the dark side: Examining creators, outcomes, and inhibitors of technostress. *Communications of the ACM, 54*(9), 113-120, DOI: 10.1145/1995376.1995403.

Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., Parkinson, J., Secker, J & Stewart-Brown, S. (2007). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): development and validation. *Health and Quality of Life Outcomes, 5*, 63.

Türen, U., Erdem, H., & Kalkın, G. (2015). Techno-Stress at Work Scale: A Research in Aviation and Banking Sectors (Turkish). *Journal of Labour Relations, 6*(1), 1-19.

van Doorn, J., Mende, M., Noble, S. M., Hulland, J., Ostrom, A. L., Grewal, D., & Petersen, J. A. (2017). Domo arigato mr. Roboto: Emergence of automated social presence in organizational frontlines and customers' service experiences. *Journal of Service Research, 20*(1), 43-58, DOI: 10.1177/1094670516679272.

Venkatesh, V. (2020). Impacts of COVID-19: A research agenda to support people in their fight. *International Journal of Information Management, 55*, 102197.

Wang, K, Shu, Q., & Tu, Q. (2008). Technostress under Different Organizational Environments: An Empirical Investigation. *Computers in Human Behavior, 24*(6), 3002- 3013.

Wang, B., Liu, Y., Qian, J., & Parker, S. (2020). Achieving Effective Remote Working During the COVID-19 Pandemic: A Work Design Perspective. *Applied Psychology* [Online first], DOI: 10.1111/apps.12290.

Yener, S., Arslan, A., & Kilinç, S. (2020). The moderating roles of technological self-efficacy and time management in the technostress and employee performance relationship through burnout. *Information Technology & People* [Online First].

Zhong, & Hao. (2016). *Dynamic lines of collaboration in e-work systems* [Doctoral Dissertaion, Purdue University]. perdue.edu. https://docs.lib.purdue.edu/dissertations/AAI10149184/