



International  
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# Teleworking arrangements during the COVID-19 crisis and beyond

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## Executive summary

Telework, defined as the use of information and communications technologies (ICTs), such as smartphones, tablets, laptops, and desktop computers, for work that is performed outside the employer's premises, is not new, having existed since the 1970's in some parts of world. It was expected to grow in usage as costs of ICTs and broadband communications became cheaper, but its regular use was limited mainly to employer-worker agreements in certain occupations and sectors.

In 2020, the Covid-19 global pandemic changed this situation. In an attempt to limit the spread of the Covid-19 virus, keep workers employed, and limit the negative economic consequences of the pandemic, policymakers and employers implemented telework whenever possible. The result has been a kind of "natural experiment" with mass teleworking. However, early evidence from the pandemic teleworking experience confirms that the mandatory, full-time nature of pandemic teleworking exacerbates the disadvantages of this work arrangement, such as the risk of social isolation and detachment from colleagues and the organization itself, as well as ergonomic issues. Existing gender inequalities and challenges for women also appear to be aggravated by mandatory, full-time teleworking, especially in the context of school and childcare facility closures.

It is very likely that in the future, rates of telework will remain significantly higher than they were prior to the onset of the pandemic. Post-pandemic teleworking will likely involve a hybrid or blended form of teleworking – working part of the time in the office and part of the time remotely. It will be necessary to develop policies and legislation to promote decent and productive telework. Social partners will play a central role in drawing out the lessons learned from the pandemic teleworking experiment and applying them to revise existing laws, regulations, and policies, or to develop new ones, that can help make teleworking a "win-win" arrangement benefitting both workers and employers in private enterprises as well as public sector organizations.

## 1. Introduction

Telework is the use of information and communications technologies (ICTs), such as smartphones, tablets, laptops, and desktop computers, for work that is performed outside the employer's premises (Eurofound and ILO, 2017)<sup>1</sup>. In other words, telework implies work achieved with the help of ICTs and conducted outside the employer's locations. Between January and March 2020, as Covid-19 infections swept the globe, many countries instructed employers to close up operations and also encouraged them to introduce full-time, mandatory telework for their workforces to the extent practicable given their functions, in order to limit the spread of the virus.

As a result, *we are now engaged in an unprecedented, large-scale experiment in mass teleworking*, and it seems likely that this expanded use of telework will not end with the end of the pandemic. This extraordinary situation brings both unprecedented opportunities and major challenges. This paper briefly explores both the opportunities and challenges of this pandemic experiment in mass teleworking, including: its history; Covid-19's impact on the nature of telework; its incidence, both prior to and during the pandemic; its associated working conditions, including its effects on work-life balance; and finally, regulatory issues associated with telework.

## 2. A brief history of telework

Telework is not new. It was invented in the US State of California in the mid-1970's by a man named Jack Niles and has evolved over time in different phases or "generations" (Messenger ed., 2019). However, until the Covid-19 pandemic, telework was not widely implemented in most countries. Before the pandemic, only a small part of the workforce was teleworking from home or another location outside the employer's premises, mostly part-time or on an occasional basis.

Teleworking has generally been used as a voluntary work arrangement by both workers and employers. It has also typically been part-time (one or two days a week) or occasional for the vast majority of teleworkers (Messenger ed., 2019). However, it is only applicable to jobs in those occupations that can be performed remotely using ICTs, such as those found in most managerial, professional, technical, sales, and clerical occupations (*ibid*). In addition, its intensity varies according to level of economic development of the countries, and those workers who have been the least likely to benefit from the opportunity to work from home during the global pandemic were disproportionately in informal work (Saltiel, 2020). Others who did not benefit were those whose work could not be done through telework, due mainly to the structure of the job (e.g., supermarket workers, construction, etc.).

In stark contrast, teleworking as it has been practiced during the Covid-19 pandemic has typically been mandatory and full-time in nature. This pandemic form of teleworking—a dramatic change from previous practices—was introduced as a temporary, short-term solution to allow organizations to continue operations and preserve jobs, while containing the spread of the Covid-19 virus, but now this "temporary, short term solution" has been continuing for a full year in many places. Although some workers in some countries are returning or have already returned to their employer's workplaces, many others are continuing to telework full-time for the near future.

## 3. Covid-19's impact on the nature of telework

Telework as it is normally practised brings some important advantages for workers. Teleworking can help workers to avoid the daily commute — which in some cities can be two or three hours each way (e.g., Mexico City, Sao Paulo). It also gives workers the flexibility to work at the times and places that are most convenient

<sup>1</sup> Telework is considered here as a subcategory of the broader concept of remote work that doesn't necessary include the use of information and communications technology or landline telephones to carry out the work remotely (see: [https://www.ilo.org/global/statistics-and-databases/publications/WCMS\\_747075/lang-en/index.htm](https://www.ilo.org/global/statistics-and-databases/publications/WCMS_747075/lang-en/index.htm)).

for them—which is called “time sovereignty”. This can be a very big advantage indeed, enabling workers to schedule their paid work activities around other personal and family responsibilities. It typically also has positive overall effects on work-life balance (see e.g., Eurofound and ILO, 2017; Messenger ed., 2019), and can be beneficial to society as a whole by reducing carbon emissions.

However, telework also carries important disadvantages as well. This includes the potential for social isolation and detachment from colleagues and the organization itself, as well as possible ergonomic issues (e.g., musculoskeletal issues, eye fatigue, etc.) in the absence of proper office equipment and furniture. Moreover, the mandatory, full-time nature of teleworking, compelled by the Covid-19 pandemic, may have exacerbated the disadvantages of this work arrangement, principally as most workers (and their homes) were not equipped to work in this manner. Existing gender inequalities and challenges for women may also be aggravated, especially in the context of school and childcare facility closures, given the unequal division of unpaid work between women and men.

Pre-pandemic research (Eurofound and ILO, 2017) suggests that the “sweet spot” for teleworking is some combination of work at the employer’s premises and teleworking. During the pandemic, this approach has come to be known as the “hybrid model”—working part-time in the office combined with part-time telework. Regardless of the form of telework, which becomes dominant in the post-pandemic period, there will need to be some kind of a collective framework for managing it to help workers and employers utilize it effectively and appropriately.

Prior to the Covid-19 pandemic, there was no serious effort to collect comparable international data on telework. Although many individual countries did collect data on telework, or at least home-based telework (also called “working from home”), they did so based on national guidelines established by their own National Statistical Offices. As a result, much of this data may only be approximately comparable across countries, if it is comparable at all. To enhance comparability of data, the ILO published guidance on “Defining and measuring remote work, telework, work at home, and home-based work” in May 2020.<sup>2</sup> This publication provides a solid basis for the harmonization of national data collection activities on telework. However, as of April 2021, no country has reported teleworking statistics to the ILO based on this new guidance.

We must therefore turn to special studies to find comparable data that will allow us to get a picture of what has been happening with the incidence of telework. The European Foundation for the Improvement of Living and Working Conditions has collected comparable data on a set of variables that permit comparable measurement of telework across the EU Member States since 2015 through their European Working Conditions survey. Based on data from this Eurofound survey presented in a joint Eurofound-ILO report, prior to the pandemic only a fraction of the European workforce was teleworking on either a regular or an occasional basis. Within the European Union (EU), the incidence of regular or occasional teleworking (home-based telework and mobile telework combined) varied from 30% or more in Denmark, the Netherlands and Sweden to 10% or less in the Czech Republic, Greece, Italy, and Poland. Depending on the studies, up to 20% of the United States workforce were regularly or occasionally working from home or another alternative location, 16% in Japan, and just 2% in Argentina (Eurofound and ILO, 2017).

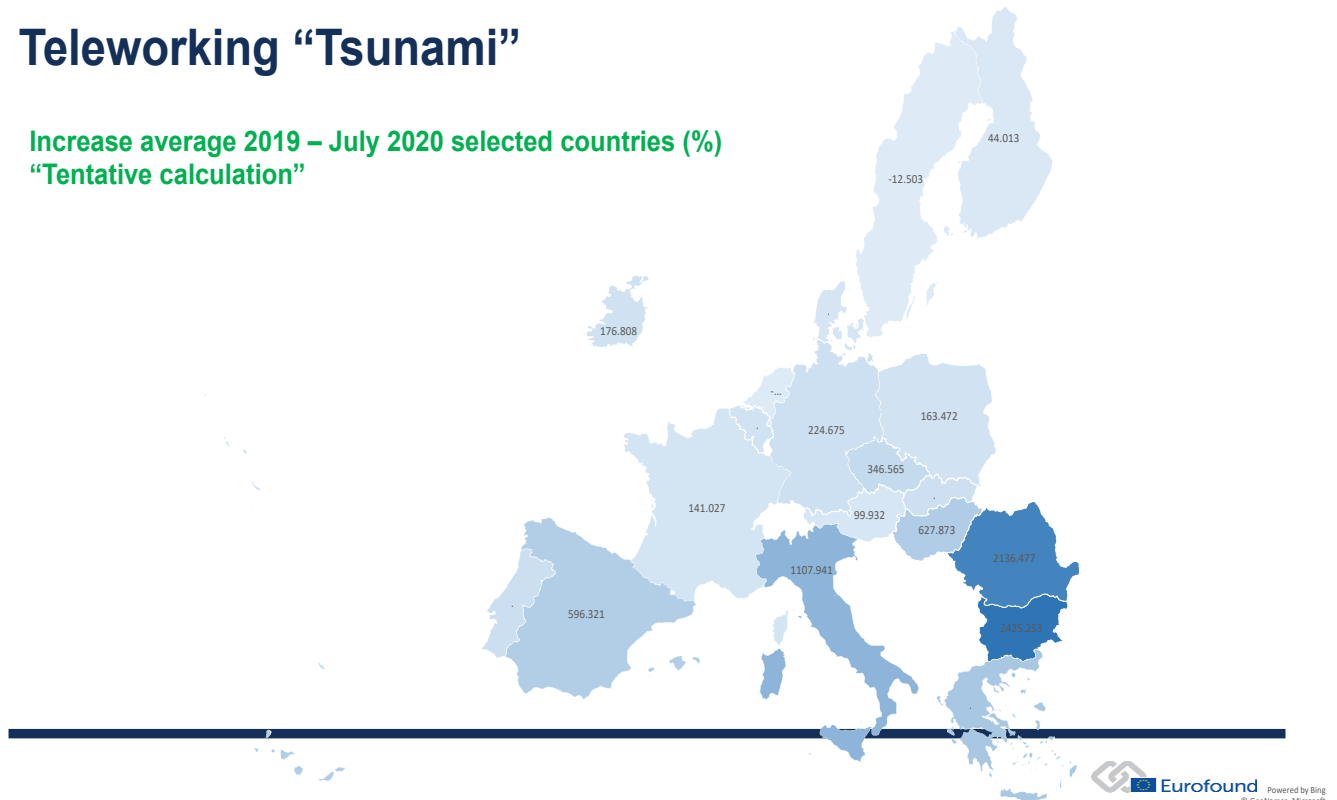
In 2020, however, as a result of the government-issued stay-home orders, approximately 34 percent of all employees in the EU started teleworking (Eurofound, 2020). The most significant increase in teleworking took place in those countries that were most affected by the virus, and where teleworking was well developed before the pandemic. In Finland, close to 60% of employees switched to working from home. In Luxembourg, the Netherlands, Belgium, and Denmark, over 50%, in Ireland, Austria, Italy, and Sweden, around 40% of employees were teleworking. In these countries, fewer workers had their working hours reduced. The percentages were a bit lower in countries that had less pre-pandemic experience with teleworking (e.g., Bulgaria and Romania), but nonetheless, these represented exponential increases from the pre-pandemic period. On average in Europe, 24% of employees that have never teleworked from home before started teleworking, compared to 56% of employees who had previously worked from home at least

<sup>2</sup> [https://ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms\\_747075.pdf](https://ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms_747075.pdf)

occasionally. The following figure graphically illustrates the increase in teleworking in Europe during the pandemic.

## Teleworking “Tsunami”

Increase average 2019 – July 2020 selected countries (%)  
“Tentative calculation”



Source: Oscar Vargas, Eurofound, Presentation during the ILO Paris Office Webinar on Telework, 26 January 2021.

Similar measures were taken in other parts of the world where governments urged employers to embrace teleworking to contribute to social distancing, in order to limit the spread of the virus. A new ILO issue brief has attempted to estimate the incidence of home-based work<sup>3</sup> during the Covid-19 pandemic (Soares et.al. 2021). Based on survey data from 30 countries, and the ILO brief concluded that approximately 17.5% of those employed in the world performed paid work in their homes in 2020.

## 4. Telework: Working Conditions

Ensuring appropriate working conditions for teleworkers raises specific issues. Traditional management methods applied in the employers’ workplace are not suitable for telework, which can pose challenges for both employers and workers. How these challenges are addressed can have a significant impact on working conditions, notably including working hours, rest periods, and the health and well-being of teleworkers.

It is generally assumed that one of the strengths of telework is that it provides working time flexibility for workers, which can benefit the enterprise in terms of productivity and the worker in terms of work-life balance (Eurofound, 2020). However, the evidence for this was to some extent limited prior to the Covid-19 pandemic. What evidence did exist was mainly found in research studies restricted in scope, perhaps

<sup>3</sup> This includes different categories of workers working *at home* and not only teleworkers. See the reference mentioned above [https://ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms\\_747075.pdf](https://ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms_747075.pdf)

relating to the fact that telework was not as widely adopted in the workplace as initially envisioned by policymakers (Rasmussen and Corbett, 2008). Related to this, systemic national data gathering on telework was conducted by a limited number of countries national statistical services, which to some extent restricted comparative analysis on topics such as the working hours of teleworkers.

To fill this gap, in recent years the ILO began to conduct comparative analysis on telework issues in the world of work. A study was conducted by the ILO, in collaboration with the European Foundation, in different countries around the world to examine the working conditions of teleworkers, including their working hours. An important finding was that in most countries, telework did provide teleworkers with flexibility as to when working hours were performed. Telework also allows increased autonomy, so that teleworkers can organize working time based on their needs and preferences (Eurofound and ILO, 2017). Recent research also indicates that working time flexibility (e.g., flexi-time, working time autonomy) are more frequently available to teleworkers than other workers (Eurofound, 2017). These elements can play an important role in the positive use of telework by workers and employers.

However, if not properly managed, telework can result in long working hours. Studies indicate that most teleworkers in the study reported longer working hours than office-based workers, often going beyond the normal working hour limits established in their employment contracts. The ILO study indicated this was the case in Argentina, Belgium, Finland, India, Japan, the Netherlands, Spain, Sweden, United Kingdom, and the United States (Eurofound and ILO, 2017). In addition, the data collected in the 2015 European Working Conditions Survey confirmed that the share of employees working long hours (defined as more than 48 hours per week) was higher for workers who teleworked than for other employees (Eurofound, 2016). While the strength of information and communications technology (ICT) is the ability to work from anywhere, the weakness is that if telework is not managed properly, the boundaries between working hours and personal life can become “blurred” (Eurofound and ILO, 2017). ICTs allow workers to be more reachable, irrespective of location, including during what might be viewed as “non-core” working hours. Studies indicate that the reason why teleworkers had longer working hours in practice are fairly consistent. Employer expectations regarding being able to reach or communicate with teleworkers was a central factor in extending their working hours. This often combined with teleworker concerns about missing messages from employers, creating the sense of needing to be connected to work as much as possible (Eurofound and ILO, 2017; Eurofound, 2017; Eurofound, 2012). Workers in a number of countries in the study reported receiving emails or phone calls beyond normal working hours, or being asked to assist colleagues or customers beyond those hours (Eurofound and ILO, 2017). Prior to the Covid-19 pandemic, recent research in the European Union indicated that longer working hours may be one reason why some teleworkers reported struggling with work-life balance, compared to other workers (Eurofound, 2017).

It is important to note that while longer working hours for teleworkers can be problematic, these concerns can be exacerbated if teleworkers are not able to get adequate rest. A body of research has developed over the years identifying how working on computers for prolonged periods can lead to certain stresses and strains on workers (Hagberg, et. Al. 2007, Paksaichol, 2012, Ashraf, 2007). Among the reported injuries associated with prolonged use of computers are eye strain, musculoskeletal problems, and other problems associated with being sedentary for extended periods of time (e.g., obesity, heart issues, etc.) (Padma, et.al. 2015). These problems may be compounded for teleworkers if they do not have access to ergonomic equipment. In the worst instances, teleworkers who are injured may fear reporting injuries for fear of negative perceptions or consequences by their employer (ABC News, 2003). Research indicates that “micro-breaks” away from computers and work stations can be important in limiting the possible negative impacts on workers’ eyes, posture, and body strains (e.g., hands and wrists, etc.) (Mclean, et. al. 2001, Nakphet, 2014). Owing to these issues, guidelines have been developed by many governments and organizations on how to limit the negative impacts of prolonged computer usage. These include recommendations for periodic breaks away from computer screens and taking time to move or stretch away from the computer station.<sup>4</sup> Most of these measures are in the form of recommendations or guidance to employers and workers, but are not requirements. Using rest breaks to limit the negative impacts of prolonged computer usage may

<sup>4</sup> For example, see European Agency for Safety and Health at Work, Office Ergonomics (E-Facts), <https://osha.europa.eu/en/publications/e-facts/efact13>: United States Department of Labor, Organizational Health and Safety Administration, <https://www.osha.gov/SLTC/etools/computerworkstations/index.html>

need to be developed in future as part of a framework to develop and implement decent and productive telework arrangements.

The available research before the Covid-19 pandemic indicated that a framework to manage telework may be the most critical variable in ensuring decent and productive working hours for teleworkers. As the Covid-19 pandemic increased the usage of telework, the need for a framework to balance and manage the needs of workers and employers has become more evident.

## **Covid-19: Telework and Working Hours**

As noted above, the onset of the Covid-19 pandemic in 2020 dramatically increased the use of telework in order to prevent the spread of the Covid-19 virus. The available research regarding the use of telework in 2020 as a response to the Covid-19 pandemic has begun to highlight some key issues and provide important insights into what may be needed as part of any developing a balanced framework for employers and workers to manage telework in the future.

From a strict statistical standpoint, the Covid-19 pandemic provided further insights into the wider use of telework by workers and employers. With regard to working time and rest, available research indicates that many concerns expressed by workers who teleworked prior to 2020 were also felt by those workers who were forced to telework due to the Covid-19 pandemic. Studies conducted during 2020 in different countries around the world found that many teleworkers had long working hours, but what was notable was the consistency of these findings. Studies in the European Union found in the 27 member states surveyed found that around 35% of teleworkers reported an increase in working hours (Eurofound, 2021, Eurofound, 2020). According to another study, working hours for teleworkers in Israel went up 47 minutes per day on average (The Economist, 2020). A study conducted by Harvard Business School in 16 cities in North America, Europe and the Middle East of 3.1 million people who were teleworking found that the average workday increased by 48.5 minutes per day (DeFilippis, et. al. 2020). Even where telework is meant to provide some flexibility to workers, it may not lead to the expected results. Telework is often perceived as providing time savings from commutes to and from the workplace. In a study in the United States, while 65% of workers surveyed had enjoyed an increase in their disposable time due to telework, 35% of them indicated that time saved from the commute was devoted to extra working time in their primary job (EU Vox, 2020).

An important factor to bear in mind regarding the studies that were produced on Covid-19 related telework is that, in many countries and even many organizations, the imposition of telework came very quickly, but often without a management or regulatory framework as to how telework could be done. This absence of structure may help to explain some of the factors that led to longer working hours for teleworkers, but should also provide policymakers and social actors with information about how to address this gap.

## **Psycho-Social Concerns Regarding Telework: Pre and Post Covid-19**

Research also indicates that, if not properly managed, teleworkers may experience certain psycho-social problems. Research prior to the Covid-19 pandemic suggested a negative emotional impact of teleworking, particularly in terms of such emotions as loneliness, irritability, worry and guilt. It has been suggested that teleworkers experience significantly more mental health symptoms of stress than office-workers (Mann and Holdsworth, 2003). This appears to be confirmed by research in EU countries, which found that 33% of workers who use computer technology all of the time report high levels of stress (Eurofound, 2020). In addition, anxiety is a concern for teleworkers, based on cognitive demands of the work and interruptions during the workday (Eurofound, 2020). Teleworkers also worried about diminished promotion opportunities and weakened ties with their employer (Baert, et. al. 2020). Overall stress can be made worse if teleworkers are continuously monitored by their employer leading to concerns regarding invasion of privacy (OECD, 2020).<sup>5</sup> These factors can contribute to extended working hours for teleworkers as they feel forced to remain connected to their work for longer periods of time.

<sup>5</sup> It is important to distinguish between teleworkers feeling isolated from communication with colleagues/employer and being monitored by their employer. Communication is reciprocal, allowing for workers to communicate with one another and their employer. Monitoring is individual with the employer monitoring the worker. Both lack of reciprocal communication and constant monitoring are identified by teleworkers as creating or compounding stress.

Since the widespread use of telework during the Covid-19 pandemic, reports indicate other concerns that, in addition to those factors mentioned above, may contribute to stress and anxiety of teleworkers. Some have suggested that there has been a growth in employer monitoring and demands for workers to be reachable by employers (Jacob, 2020). Paradoxically, as ICTs can allow workers to continue to work away from the employer's workplace, some teleworkers have expressed concerns that if their job can be done from anywhere, it may be that the job can be done by anyone, raising worries regarding job security (Fox, 2020). This, combined with other stresses above, may also further validate the research indicating that teleworkers are working longer hours during this Covid-19 period.

While not receiving that attention it perhaps merits, one factor that has been raised by the Covid-19 19 pandemic are the implications of domestic violence on teleworkers. As mandatory telework was imposed, many victims of domestic abuse were forced to remain in homes with their abusers. Studies during the Covid-19 Pandemic show that lockdown measures undertaken worldwide to contain the coronavirus have increased the risks associated with domestic violence, especially for women and children (OECDa, 2020). Violence or harassment against women who telework may raise further issues for employers. While remedies are often found in family or criminal law, there has been some suggestion that labour law in some countries may also offer some recourse to help abused teleworkers and their employers. For example, in the United States, it has been suggested that the Federal Occupational Safety and Health Act's "General Duty" clause mandates that companies provide each employee with a "a place of employment free of recognizable hazards that are causing or are likely to cause death or serious physical harm" (Brunell, 2020). Analysis in Canada also indicates that the occupational health and safety (OHS) laws in Ontario, Alberta, and British Columbia, recognize domestic violence in the workplace as a form of workplace violence (Sadovnick, Deschamps, Erickson, 2020).

The extent to which this takes place will become more apparent as data and studies become available, but this is an area that merits attention as part of policy or regulatory action on telework.

## 5. Work-Life Balance: Gendered Responses to Telework

Available data prior to Covid-19 pandemic indicated that the use of telework varied demographically in countries around the world. In the European Union, for example, there was a higher share of men (54%) than women (36%) that teleworked, though a higher share of women (57%) were home-based teleworkers than men (34%) (Eurofound and ILO, 2017). The gender difference in Japan in the same study found that only 13.7% of female employees teleworked, compared with 21.4% of male employees (Eurofound and ILO, 2017). In India the share between female employees and male employees teleworking was vastly higher for men than for women (Eurofound and ILO, 2017).

The Covid-19 pandemic has impacted on the numbers of men and women teleworking, with the number of women in telework growing. Available evidence in EU countries suggests that higher shares of women teleworked than men (Eurofound a, 2020). In the United States, recent research has indicated that women were more likely to switch from the employer's workplace to telework from home than men (Brynjolfsson, et. al., 2020). While it will take further time to gather disaggregated data on the use of telework from different countries during the Covid-19 pandemic (2020), it is possible that this information will broadly fall within the preliminary findings reported in existing studies.

Telework is often promoted as a possible tool to help workers balance work and life commitments, but a lot depends on how it used and who uses it. As women historically were responsible in many cultures for addressing family life issues, it was thought that telework could assist with this process. However, some research began to point out the problems with this perception. For example, some studies found that the time women may have saved commuting to the office was re-allocated to caregiving, housework, or paid employment, but rarely to the woman herself (Hilbrecht, Shaw, Johnson, Aubrey, 2008). Another found that, while telework may shrink the gender gap in childcare, it still impinges more on women's time than men's (Lyttelton, Zang, Musick, 2020). Research has suggested the effective use of telework to address work-life balance may rest on the willingness of organizations to improve the implementation of it and other measures to achieve this balance in the least discriminatory way (Lyttelton, Zang, Musick, 2020). This indicates that telework may be a part of a system to address work-life balance, but it should be done in



conjunction with other measures to achieve full work-life balance for workers. Yet, prior to the Covid-19 pandemic, telework was offered to only to limited groups of workers, which may have impacted on efforts to create links between telework and other work-life measures to achieve better balances for workers and employers.

Again, from a statistical standpoint, the greater use of telework during the Covid-19 pandemic has exposed the need to take into account other variables to ensure it addresses work-life balance. The available data suggests that rather than helping with the gender balance on dealing with work-life issues, women still had disproportionate responsibility to address work and family needs (Lyttelton, Zang, Musick, 2020). One survey of teleworking in EU countries during Covid-19, found that almost 1/3 of women with children under 12 found it hard to concentrate on their work (as opposed to 1/6 of men) and 24% had to give up their jobs to address family responsibilities (Mascherini, 2020). In the same study, 32% of women indicated that their job prevents them from giving time to their family. As noted, as more data becomes available from the Covid-19 pandemic period from different parts of the world, these finding may become more generalizable.

Below is a cogent summary of the situation and what policymakers and social actors should consider when adapting telework to meet work-life balance issues in the future (Eurofound a, 2020):

The Covid-19 crisis presents a serious risk of rolling back decades of gains achieved in gender equality. The unintended consequences of measures put in place by governments in spring 2020 in an attempt to control the spread of the pandemic has been to increase considerably women's share of unpaid work. In this regard, telework has also proved to be burdensome for many working mothers as they juggle work, home-schooling and care, all in the same pocket of space. While some of the gender-unequal impacts of the current crisis might be temporary and could reverse at a later stage, others could have long-lasting consequences. It is therefore essential that the economic and social inclusion of women be at the core of recovery measures.

## 6. Regulating Telework

Before the Covid-19 pandemic, there was limited regulatory activity with regard to telework. Perhaps owing to the restricted use to certain occupations, workers, or in specified industries, the regulation of telework often only took place within organizations. This has begun to change as the expanded use of telework during the Covid-19 crisis exposed gaps in the frameworks that can provide guidance to workers and employers about how to use telework to meet worker and employer needs. A growing number of social actors and policymakers have begun to take regulatory action in this context. If, as some surveys suggest, workers and employers consider greater use of telework, then the need for regulatory action will be expected to grow in the future.

### International Labour Standards and Telework

There is no explicit international labour standard addressing the rights and responsibilities of workers and employers regarding telework. Existing international labour standards only address certain aspects of telework. For example, the [ILO Occupational Safety and Health Convention, 1981 \(No. 155\)](#) and [ILO Occupational Safety and Health Recommendation, 1981 \(No. 164\)](#) refers to the right to request telework in a situation where the worker considers that the workplace poses an imminent danger to her/his well-being. The ILO [Hours of Work \(Commerce and Offices\) Convention, 1930 \(No. 30\)](#) can be used to address the maximum daily and weekly hours for workers in offices and commerce, and by extension, to teleworkers. The ILO [Weekly Rest \(Commerce and Offices\) Convention, 1957 \(No. 106\)](#) could also be applied to ensure teleworkers receive a period of at least 24 consecutive hours of rest during any workweek. To address annual leave, the [ILO Holidays with Pay Convention \(Revised\), 1970 \(No. 132\)](#) might also apply to teleworkers as other workplace-based workers. For permanent home-based teleworkers, it may be possible to apply the [ILO Home Work Convention, 1996 \(No. 177\)](#) and [ILO Home Work Recommendation, 1996 \(No. 184\)](#), though it is not applicable to workers who telework on a partial or occasional ad-hoc basis. Finally, the [ILO Code of Practice on the Protection of Workers' Personal Data](#) could be applicable to teleworkers in order to ensure the protection of their personal data.

If telework grows as expected, the ILO Committee of Experts on the Application of Conventions and Recommendations (CEACR)<sup>6</sup> may be asked to use these standards to apply to specific dimensions of telework, but it is unlikely that the standards would apply to all dimensions of teleworking arrangements.

## Regulation prior to the Covid-19 Pandemic

Before the Covid-19 pandemic, there was limited regulatory activity on telework. The most notable was the European Union Framework Agreement on Telework (2002). The Agreement established a general framework on the rules regarding telework with the aim of promoting it, but also ensuring needs of workers and employers. The Agreement highlights that teleworkers retain the same legal protections as employees who work at an employer's workplace. It also identifies the features that are specific to remote working, requiring adaptation on issues such as employment conditions, data protection, privacy, equipment, health and safety, organization of work, training and collective rights. The EU Telework Agreement is applicable to all 27 member countries in the European Union.<sup>7</sup> They are obligated to implement the provisions of the Agreement into national labour legislation and have these provisions interpreted in national law by national courts.

## Regulation, but not fully on telework

It is worth noting that the regulation of telework was addressed in different ways in a number of countries before 2020. In some countries, these were the regulations that were used broadly and have in some cases been adapted to address telework. In other countries, national authorities extended regulatory guidance on how telework should be addressed (in some cases during the Covid-19 crisis in 2020).

Some countries have legislation on flexible work arrangements that can be extended to include telework. Countries such as Australia<sup>8</sup>, Canada<sup>9</sup>, New Zealand<sup>10</sup> and the United Kingdom<sup>11</sup> have these provisions in their national legislation. In this context, the legislation allows a worker to request flexible work arrangements, including flexibility as to the location where the worker will work.

Other countries have provided what might be termed regulatory guidance on telework. Regulatory guidance involves the government providing guidance on how telework should be organized and issues addressed. This regulatory guidance may not be legally binding but provides a framework for workers and employers to address telework. Depending on the legal system, some aspects of the regulatory guidance on telework might be useful in informing legal decisions by courts, but it cannot be specifically relied upon in the same manner as legislation. Since the Covid-19 pandemic, countries such as China<sup>12</sup> and Indonesia<sup>13</sup> have developed regulatory guidance on telework.

What might be categorized as a mixed system of regulation and regulatory guidance is used in some countries. In this case, national legislation may permit telework (or remote work) as part of broader flexible

<sup>6</sup> The Committee of Experts was set up in 1926 to examine the growing number of government reports on ratified Conventions. Today it is composed of 20 eminent jurists appointed by the Governing Body for three-year terms. The experts come from different geographic regions, legal systems and cultures. The role of the Committee of Experts is to provide an impartial and technical evaluation of the application of international labour standards in ILO member States. For more information see <https://www.ilo.org/global/standards/applying-and-promoting-international-labour-standards/committee-of-experts-on-the-application-of-conventions-and-recommendations/lang-en/index.htm>.

<sup>7</sup> This includes France, Germany, Italy, and though no longer an EU member, the United Kingdom.

<sup>8</sup> Fair Work Act (<https://www.alrc.gov.au/publication/grey-areas-age-barriers-to-work-in-commonwealth-laws-dp-78/2-recruitment-and-employment-law/the-fair-work-act-2009-cth/>)

<sup>9</sup> Division I.1 on Flexible Work Arrangements in the Canada Labour Code (<https://laws-lois.justice.gc.ca/eng/acts/L-2/FullText.html>)

<sup>10</sup> Employment Relations Act (2000), Part 6AA <https://www.legislation.govt.nz/act/public/2000/0024/latest/DLM58317.html>

<sup>11</sup> Part 8A of Employment Rights Act 1996 (<https://www.legislation.gov.uk/ukpga/1996/18/contents>) & The Flexible Working Regulations 2014 (No. 1398) (<https://www.legislation.gov.uk/uksi/2014/1398/made>).

<sup>12</sup> <https://www.mondaq.com/china/employee-rights-labour-relations/898852/impact-of-the-coronavirus-outbreak-on-employment-relationship>

<sup>13</sup> <https://www.lexology.com/library/detail.aspx?g=45e1a953-274a-475a-8538-5a75fef60e3e>

work arrangements. Regulatory guidance might be provided to better define how the flexible work arrangements, such as telework, can be framed and used by workers and employers, but the guidance itself might not be legally binding. This is similar to the regulatory guidance example (above), in that the regulatory guidance can inform legal decisions by courts, but it will be for the courts to make the decision in this context. The flexible work arrangements used in Japan<sup>14</sup> and South Korea<sup>15</sup> would appear to be examples of this system.

## Post-Covid-19 Regulatory Action on Telework

Other than in the European Union, the general absence of government regulation regarding telework in the period before the Covid-19 pandemic became more apparent during 2020. As employers, workers, and governments were forced for public health reasons to apply mandatory telework within countries, it became increasingly clear that the absence of regulations led to an abundance of confusion and frustration in determining how telework should operate under these conditions.

From the beginning of 2020 and through the course of the year, regulatory activity on telework visibly increased. The ILO was asked by individual national governments, workers and employers to develop legally binding national regulations on telework. The ILO provided technical and legal assistance to the development of legislation on telework in Argentina<sup>16</sup>, Chile<sup>17</sup>, Mexico<sup>18</sup>, Peru<sup>19</sup>, and the Russian Federation.<sup>20</sup> Based on continuing demand by ILO constituents for technical and legal assistance on these issues, it is likely that the ILO's work in this area will continue well beyond 2021.

## Right to Disconnect

As noted previously, workers who telework often feel pressured to be constantly "connected" to their employer and co-workers. This tension can lead to many of the negative consequences of telework such as longer working hours and tension in balancing paid work and personal life commitments. The factors can cause unhealthy consequences for workers such as stress, anxiety, and even physical problems relating to being constantly in a sedentary position to remain online. Owing to this, there has been a growing push by social actors in different countries to develop firmer boundaries between working hours and personal life for teleworkers. The focus of this action is on the right to disconnect.

The right to disconnect refers to a worker's right to disengage from work and refrain from engaging in work-related electronic communications, such as emails or other messages, during non-work hours. As ICTs increase the possibility of reaching workers at any time and in any place, the right to disconnect can be viewed as an important boundary to limit the workday for workers and ensure the right to rest. In principle, the right to disconnect is meant for all workers, including limits for office workers to be reached outside of office hours or to teleworkers.

<sup>14</sup> <https://www.jil.go.jp/english/jli/documents/2017/001-01.pdf>; <https://www.mhlw.go.jp/content/10900000/000635889.pdf> Regulatory Guidance

<sup>15</sup> Flexible Work Regulation (<https://leglobal.org/2020/03/16/south-korea-hr-management-of-employers-with-regards-to-the-covid-19/>); Manual on Telework (<https://www.lexology.com/library/detail.aspx?g=49b773eb-91f7-409b-9f64-ed5ecfa133df>)

<sup>16</sup> Régimen Legal Del Contrato De Teletrabajo, Ley 27555 (<https://www.boletinoficial.gob.ar/detalleAviso/primera/233626/20200814>)

<sup>17</sup> Ley 21220 Firma electrónica Modifica El Código Del Trabajo En Materia De Trabajo A Distancia (<https://www.bcn.cl/leychile/navegar?idNorma=1143741>). Chile had imitated work on this legislation before the outbreak of the Covid-19 pandemic, though the legislation came into law in early 2020.

<sup>18</sup> Decreto por el que se reforma el artículo 311 y se adiciona el capítulo XII Bis de la Ley Federal del Trabajo, en materia de Teletrabajo ([https://dof.gob.mx/nota\\_detalle.php?codigo=5609683&fecha=11/01/2021](https://dof.gob.mx/nota_detalle.php?codigo=5609683&fecha=11/01/2021))

<sup>19</sup> Ley N° 30036, Ley Que Regula El Teletrabajo ([http://www2.congreso.gob.pe/sicr/cendocbib/con4\\_uibd.nsf/DD7DF93E4B76742105257EF4000325BA/\\$FILE/30036.pdf](http://www2.congreso.gob.pe/sicr/cendocbib/con4_uibd.nsf/DD7DF93E4B76742105257EF4000325BA/$FILE/30036.pdf))

<sup>20</sup> Federal Law No. 407-FZ of 08.12.2020 "On Amendments to the Labor Code of the Russian Federation regarding the regulation of remote (remote) work and temporary transfer of an employee to remote (remote) work at the initiative of the employer in exceptional cases" (<http://publication.pravo.gov.ru/Document/View/0001202012080047>)

At national level, several countries have begun to introduce legislation on the right to disconnect. France pioneered the right to be disconnected in a revision of the French labour code. This law, which was implemented in 2017, includes an obligation for employers and employees in every company with 50 employees or more to negotiate “the use of ICTs”, with a view to ensuring respect for the rest and holiday periods of workers and their personal and family lives.<sup>21</sup>

In Belgium, the right to disconnect has been set up in Articles 15 to 17 of the 26 March 2018 “Act regarding the strengthening of economic growth and social cohesion”. These articles of law (in force since 9 April 2018)<sup>22</sup> establish that issues concerning disconnection and the use of digital communications should be discussed within the Prevention and Protection Committee (PPC), a representative body for employees that must be elected in companies with more than 50 staff members. With the aim of ensuring rest periods and work-life balance, these articles also state that in order for annual holidays and other leave periods from work to be respected, an employer must consult with the company’s PPC at regular intervals, and at the request of PPC representatives. The consultations will focus on disconnecting from work and the use of digital means of communication.

Spain has also taken action in this area.<sup>23</sup> The Organic Law 3/2018, of December 5, on Protection of Personal Data and guarantee of digital rights recognizes the right to disconnect for all employees and civil servants. The law requires all employers to develop and implement a right to disconnect policy in their companies, either through a collective agreement or via a charter after consultation with workers’ representatives.

In Italy, Act 81/2017, which provides the right to disconnect, does not cover all workers, but only so-called “smart workers”.<sup>24</sup> These are defined as those workers who combine working in their offices with working remotely, either to balance work and family commitments or for work-related reasons. The right to disconnect is established via individual agreements.

Countries such as Ireland, the Netherlands, and Portugal are currently exploring regulatory action on the right to disconnect.

The right to disconnect is a growing issue for many social actors around the world. The ILO has recently begun to take this into account. The ILO Committee of Experts (CEACR) has recognized the right to disconnect as an emerging issue that will need to be addressed at international level in the future (ILO, 2017). At present, there is no specific international labour standard to address this issue. In addition, perhaps relating to the national regulatory activity in member states of the European Union on this issue (above), the European Parliament has issued a resolution with recommendations to the European Commission on the right to disconnect, with the aim of developing policy and regulations at EU level on this issue.<sup>25</sup>

## **Worker privacy and electronic monitoring**

Another issue of importance to workers is the boundary between a worker’s right to privacy and the employer’s ability to electronically monitor workers. This is another issue that impacts all workers, whether in the office or for those who are teleworking. Electronic monitoring in this context refers to the use of computer software to monitor, record, and track employee activities. Information on employee performance is collected in real time (for example, by monitoring emails or telephone calls). The balance in question is between the employer’s need to monitor worker performance and protect company assets with the reasonable expectations that workers may have to perform their work and maintain their personal privacy. This question, like the right to disconnect, has risen in prominence for social actors due to the widespread availability of ICTs and monitoring software available to organizations. The greater use of

<sup>21</sup> <https://www.service-public.fr/particuliers/actualites/A14652>

<sup>22</sup> [https://www.cms-lawnow.com/ealerts/2018/09/switching-on-to-switching-off-disconnecting-employees-in-europe?cc\\_lang=fr](https://www.cms-lawnow.com/ealerts/2018/09/switching-on-to-switching-off-disconnecting-employees-in-europe?cc_lang=fr)

<sup>23</sup> <https://www.boe.es/buscar/doc.php?id=BOE-A-2018-16673>

<sup>24</sup> <https://www.cliclavoro.gov.it/Normative/Legge-22-maggio-2017-n81.pdf>

<sup>25</sup> European Parliament resolution of 21 January 2021 with recommendations to the Commission on the right to disconnect ([https://www.europarl.europa.eu/doceo/document/TA-9-2021-0021\\_EN.pdf](https://www.europarl.europa.eu/doceo/document/TA-9-2021-0021_EN.pdf)).

telework during the Covid-19 pandemic will no doubt contribute to raising the profile of these issues on the policy and regulatory agenda.

In practice, employer monitoring in some countries is more widespread than on others. For example, in one study in the United States it was found that 80% of major companies monitor the internet usage, phone and email of their employees (George, 2020).

In some countries, the regulatory balance between employer monitoring and worker privacy needs is delicate. In these countries, available regulations permit an employer to monitor workers, but on the condition that workers are notified in advance that the employer will be monitoring them. What is notable is that these rights and responsibilities are generally not defined by labour law as such, but they may be available through a variety of other legal instruments.

The European Union does not have legislation that explicitly addresses employee monitoring. What is applicable is the General Data Protection Regulation (Regulation (EU) 2016/679), replacing Directive 95/46/EC, otherwise known as the GDPR.<sup>26</sup> The GDPR regulates the collection, use and transfer of personal data and sets out provisions that apply to all data-processing operations, including employee monitoring. Prior informed consent of employees is required before it can be used to monitor employees. However, the extent of the data collected about employees, notably in the context of greater connectivity of ICTs, raises concerns about how well informed workers may be prior to providing consent. Member countries can introduce specific provision to process employee data for a variety of reasons.

In the United States, the regulation of employee monitoring may be found in different places. Public sector employees may have some minimal rights under the United States Constitution, in particular the Fourth Amendment, which safeguards against unreasonable search and seizure. For most workers, the Electronic Communications Privacy Act of 1986 (18 USC §§ 2510 et seq) (ECPA) is applicable to email communications.<sup>27</sup> What an employer can monitor depends on whether the employees' messages are intercepted during transmission or are retrieved from storage on the employer's server. Union-negotiated contracts may also limit the employer's right to monitor workers.

Other countries use a mix of legal and regulatory guidance instruments. In South Korea, employees must give their express consent.<sup>28</sup> Monitoring e-mails without employee consent will most likely infringe the law. In Japan, the Law on the Protection of Personal Information 2005<sup>29</sup> provides that an employer should specify the purposes of monitoring and incorporate them in its employee privacy policy, designate the person responsible for monitoring and the authority of that person to perform audits, and confirm that monitoring is being conducted appropriately. The Japanese government has also drafted supplementary guidance on this issue.

## 7. Conclusions

The full impact of Covid-19 on labour markets remains to be determined. However, it is very likely that rates of telework will remain significantly higher than they were prior to the onset of the pandemic (see e.g., Eurofound, 2020). Early-stage research and surveys have found that a high percentage of workers would like to telework more frequently—even after social distancing restrictions have been lifted. Additionally, some workers have now realized that their jobs can be performed outside of traditional office spaces, and they are now also more comfortable using the necessary technology. Finally, many business leaders who previously were resistant to their teams working from home have now experienced that it can be done successfully, and thus are supportive of workers teleworking more frequently. However, this requires ensuring that the necessary digital infrastructure is in place—which is a costly, but absolutely necessary,

<sup>26</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679&from=EN>

<sup>27</sup> <https://bja.ojp.gov/program/it/privacy-civil-liberties/authorities/statutes/1285>

<sup>28</sup> Communications Secrecy Protection Act of 1993, Act on the Promotion of Information, Communications Network Utilization and Information Protection of 2001 and Articles 17 and 18, Constitution 1948)

<sup>29</sup> <https://www.jil.go.jp/english/reports/documents/jilpt-reports/no.14.pdf>; The Japanese government has also published guidelines (www.meti.go.jp/policy/it\_policy/privacy/0708english.pdf) which supplement.)

investment. In addition, as discussed earlier in the paper, the “teleworkability” of jobs is strongly related to the occupational structure in the country, which includes a variety of factors such as the skills of the workforce.

However, post-pandemic teleworking is likely to return to its voluntary and partial or occasional nature. Early evidence from the pandemic teleworking experience confirms that the mandatory, full-time nature of pandemic teleworking exacerbates the disadvantages of this work arrangement, such as the potential for social isolation and detachment from colleagues and the organization itself, as well as ergonomic issues. Existing gender inequalities and challenges for women also appear to be aggravated by mandatory, full-time teleworking, especially in the context of school and childcare facility closures. In fact, telework was under-developed prior to the pandemic regarding both policy (national and organizational) and regulation (often no laws or regulations on telework in countries outside of the EU, even fewer on the right to disconnect). As telework policy and law develop in the future to catch up with practice, this may help improve working conditions even when mandatory, full-time telework is used in other critical situations. It now appears that post-pandemic teleworking will likely involve a hybrid or blended form of teleworking – working part of the time in the office and part of the time remotely. In fact, this “hybrid model” of teleworking has been shown to be the best approach for maximizing its benefits and minimizing its drawbacks (see e.g., Eurofound and ILO, 2017). The mandatory, full-time form of teleworking should really be used only in exceptional circumstances (e.g., for epidemics or other pandemics), but also possibly for natural disasters as well, such as with the Great Japanese Earthquake).

It will be necessary to develop policies to promote decent and productive telework as a much larger portion of the workforce is likely to use this work arrangement than prior to the pandemic. During the next, highly uncertain period, governments, workers and employers will have to adapt to a new ways of working requiring new behaviours and new norms. It will be essential to ensure that the social partners play a central role in drawing out the lessons learned from the pandemic teleworking experiment and in ensuring they are applied when revising existing laws, regulations and policies, or developing new ones. This will ensure that teleworking is a “win-win” arrangement benefitting both workers and employers in private enterprises as well as public sector organizations.

## References

- ABC News (2003) Beware the Hidden Hazards of Telecommuting, (<https://abcnews.go.com/Business/story?id=86523&page=1>)
- Ashraf A. Shikdar & Mahmoud A. Al-Kindi (2007) Office Ergonomics: Deficiencies in Computer Workstation Design, *International Journal of Occupational Safety and Ergonomics*, 13:2, 215-223.
- Baert, Stijn; Lippens, Louis; Moens, Eline; Sterkens, Philippe; Weytjens, Johannes (2020): The COVID-19 Crisis and Telework: A Research Survey on Experiences, Expectations and Hopes, IZA Discussion Papers, No. 13229, Institute of Labor Economics (IZA), Bonn
- Brynjolfsson, Erik, Horton, John, Ozimek, Adam, Rock, Daniel, Sharma, Garima, TuYe, Hong-Yi, "COVID-19 and Remote Work: An Early Look at US Data" (<https://static1.squarespace.com/static/5e5e75f9e1e4270af54307cc/t/5f63a3873f879a5254c2d6ec/1600365449880/remote-work+%289%29+%281%29.pdf>), 8 September 2020.
- Brunell, Kimberly, "Domestic Violence During Remote Work: How Companies Can Protect Employees", *Bloomberg Law*, 7 December, 2020; Federal Occupational Safety and Health Act, (29 U.S.C. Section 654(a)(1)).
- The Economist (2020), People are working longer hours during the pandemic, Working from home is less liberating than many hoped, Daily chart, 24 November 2020, (<https://www.economist.com.ilo.idm.oclc.org/graphic-detail/2020/11/24/people-are-working-longer-hours-during-the-pandemic>)
- DeFilippis, Evan, Impink, Stephen Michael, Singell, Madison, Polzer Jeffrey T., Sadun, Raffaella, July 2020, Collaborating During Coronavirus: The Impact of COVID-19 on the Nature of Work, National Bureau of Economic Research Working Paper 27612.
- Fox, Michelle, "Remote work burnout is growing as pandemic stretches on. Here's how to manage it" *CNBC*, 28 July 2020.
- Eurofound and the International Labour Office (2017), Working anytime, anywhere: The effects on the world of work, Publications Office of the European Union, Luxembourg, and the International Labour Office, Geneva.
- Eurofound (2021), COVID-19: Implications for employment and working life, COVID-19 series, Publications Office of the European Union, Luxembourg.
- Eurofound (2020), Telework and ICT-based mobile work: Flexible working in the digital age, New forms of employment series, Publications Office of the European Union, Luxembourg.
- Eurofound a (2020), Living, working and COVID-19, COVID-19 series, Publications Office of the European Union, Luxembourg.
- Eurofound (2017), Sixth European Working Conditions Survey – Overview report (2017 update), Publications Office of the European Union, Luxembourg.
- Eurofound (2016), Sixth European Working Conditions Survey 2015: Overview report, Publications Office of the European Union, Luxembourg
- Eurofound (2012), Fifth European Working Conditions Survey, Publications Office of the European Union, Luxembourg.
- George, Hannah, How much employee monitoring is too much? *American Bar Association Blog*, January 2018, <https://www.americanbar.org/news/abanews/publications/youraba/2018/january-2018/how-much-employee-monitoring-is-too-much/>
- Hagberg, M. Vilhemsson, R. Wigaeus Tornqvist, E. & Toomingas, A. (2007) Incidence of self-reported reduced productivity owing to musculoskeletal symptoms: association with workplace and individual factors among computer users, *Ergonomics*, Volume 50, Issue 11, pgs. 1820-1834;
- Hilbrecht, M., Shaw, S.M., Johnson, L.C. and Andrey, J. (2008), 'I'm Home for the Kids': Contradictory Implications for Work–Life Balance of Teleworking Mothers. *Gender, Work & Organization*, 15: 454-476.

ILO, 2017, General Survey concerning working-time instruments, [https://www.ilo.org/wcmsp5/groups/public/---ed\\_norm/---relconf/documents/meetingdocument/wcms\\_742229.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_742229.pdf)

Jacob, Emma. "Remote work: how are you feeling?" Financial Times, 28 November 2020.

Mann, S. and L. Holdsworth (2003), "The psychological impact of teleworking: stress, emotions and health", *New Technology, Work and Employment*, Vol. 18/3, pp. 196-211.

Lyttelton, Thomas, Zang, Emma, Musick, Kelly, "Gender Differences in Telecommuting and Implications for Inequality at Home and Work", 17 July 2020, (<https://news.yale.edu/2020/07/17/study-reveals-gender-inequality-telecommuting>)

Mascherini, Massimiliano, COVID-19 fallout takes a higher toll on women, economically and domestically, Eurofound Blog, 3 June 2020. <https://www.eurofound.europa.eu/publications/blog/covid-19-fallout-takes-a-higher-toll-on-women-economically-and-domestically>

McLean L, Tingley M, Scott RN, Rickards J. Computer terminal work and the benefit of microbreaks. *Applied Ergonomics*. 2001 June, Volume 32, Issue 3, pgs. 225-237.

Messenger, Jon C. (ed.). 2019. *Telework in the 21st Century, An Evolutionary Perspective*, ILO Future of Work series. Cheltenham, UK and Geneva: Edward Elgar and ILO.

Nakphet N, Chaikumarn M, Janwantanakul P. Effect of different types of rest-break interventions on neck and shoulder muscle activity, perceived discomfort and productivity in symptomatic VDU operators: a randomized controlled trial. *International Journal of Occupational Safety and Ergonomics* 2014, Volume 20, Issue 2, pgs. 339-53.

OECD. 2020. Productivity gains from teleworking in the post COVID-19 era: How can public policies make it happen? OECD Tackling the Coronavirus (Covid-19), Contributing to the Global Effort.

OECDa, 2020, Exploring policy options on teleworking: "Steering local economic and employment development in the time of remote work," OECD Local Economic and Employment Development (LEED) Papers 2020/10.

Padma, V., Anand, N. N., Gurukul, S. M., Javid, S. M., Prasad, A., & Arun, S. (2015). Health problems and stress in Information Technology and Business Process Outsourcing employees. *Journal of Pharmacy & Bio-Allied Sciences*, 7(Suppl 1), S9-S13.

Paksaichol A, Janwantanakul P, Purepong N, Pensri P, van der Beek AJ. Office workers' risk factors for the development of non-specific neck pain: a systematic review of prospective cohort studies. *Occupational Environmental Medicine*. 2012 September Volume, Issue 9, pgs. 610-618.

Rasmussen, E. and Corbett, G. (2008), 'Why isn't teleworking working?' *New Zealand Journal of Employment Relations*, Vol. 33, No. 2, pp. 20-32.

Sadovnick, Joshua, Deschamps, Jonathon, Erickson, Stéphane, "Not turning a blind eye: addressing domestic violence, telework, and pandemic-related employment considerations in Canada", Norton Rose Fulbright, 31 August 2020 (<https://www.nortonrosefulbright.com/en-pk/knowledge/publications/567e9fe1/not-turning-a-blind-eye-addressing-domestic-violence-telework-and-pandemic>).

Saltiel, Fernando. (2020). "Who can work from home in developing countries", *Covid Economics*, 7, 104-118.)

Sergei Soares<sup>30</sup>, Florence Bonnet; Janine Berg; and Rodrigo Labouriau. Forthcoming. (2021). From potential to practice: "Preliminary findings on the numbers of workers working from home during the COVID-19 pandemic", ILO INWORK Issue Brief No. XX.

Vox EU, 23 September 2020, Jose Maria Barrero, Nicholas Bloom, Steven Davis, 60 million fewer commuting hours per day: How Americans use time saved by working from home, <https://voxeu.org/article/how-americans-use-time-saved-working-home>

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