TELEWORKING IN POST-PANDEMIC TIMES:
MAY LOCAL COWORKING SPACES BE THE FUTURE TREND?

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Abstract

The Covid-19 pandemic has altered the habits and lifestyle of every citizen worldwide who is experiencing social distancing, mainly in the work environment, increasing the degree of uncertainty, especially in creative and innovative sectors. New trends, such as remote working and teleworking, emerged, marking a shift in the working culture, and producing a growth of intermittent work

modalities and diverse, even community-led, dynamics affecting our urban environment economically, socially, and spatially.

During the year 2020, we have been witnessed a wave of workers moving from traditional work in the office (Second Place) to teleworking at home (First Place) or a Third place (i.e., coworking spaces), with significant effects on the worker's performance and the geography of work, including implications for the environment. Even if the turn towards local coworking places was already in place, the impact of Covid-19 on coworking has rendered these local spaces vital pieces of an infrastructure of local resilience as work will shift away from global metropolitan areas, as suggested by numerous analyses based on extensive surveys. Within this context, the present paper aims to explore whether and how teleworking impacts the worker him/herself in terms of productivity, quality of life, and well-being. Moreover, the effects of working in a local coworking space (community-led coworking space) are discussed, and attention is devoted to the role of these workplaces to accommodate teleworkers.

1. Introduction

Recent developments in ICT have eroded the workplace spatial fixity, allowing more individuals to work from home, either permanently or several times a week. The improvement of information and communication technologies has undoubtedly benefitted the teleworking dynamics, with the potential of reducing travel demand and, consequently, congestion and greenhouse gas emissions. The Covid-19 pandemic has caused upheaval worldwide and has led to drastic changes in the citizens' daily routines worldwide. Long-established habits, such as commuting paths to the office, are replaced by the above-mentioned remote working and telecommuting. Many of these shifts were already underway for a long time, but the pandemic has drastically accelerated them.

Due to the forced social distancing and rigid sanitation protocols, in several countries people are still working from home (Berg et al., 2020) or searching for a safe and healthy workplace, since their offices do not provide enough space and flexible opportunities for work. Within the current situation, it has been argued that the third-place (Oldenburg, 1989), which includes a variety of flexible workspace solutions such as coworking spaces, represents a valuable alternative for remote workers who need a more supportive environment where 'work and community are intertwined' (Rus and Orel, 2015).

Covid-19 is disrupting resistance to the change of smart work through imposing an unusual circumstance under which it may work, or it must work. Covid-19 may last longer than anticipated or wished—its geography and duration already surpassed SARS 2003. It is expected that the pandemic scenario will expedite a change and establish, culturally, a shift in the working culture. This

new normal will challenge the existing organization and management norms and workplace culture and demand reform and change.

Within this work scope, remote working, and explicitly teleworking, is examined through the lens of new workspaces (coworking spaces) as a potential factor to boost sustainability. Teleworking generates several effects from an economic, environmental, and social perspective for the worker him/herself and the local context (Kylili et al., 2020; Mariotti et al., 2017; 2021a).

The paper aims to explore the effects of teleworking on workers' productivity, quality of life and well-being (Kylili et al., 2020; Capdevila, 2018). Moreover, the positive effects of coworking spaces on their users (coworkers and teleworkers) are analysed and discussed, since tele-home workers mainly complain about inadequate technology, risks of isolation, feeling to be constantly connected, and poor work-life balance. To reach this goal, a literature review is carried out, and the following research questions are framed:

- Does teleworking positively affect workers' productivity, quality of life and well-being?
- Can coworking spaces be considered a good alternative for teleworkers and home-workers, thus enhancing wellbeing and work-life balance?
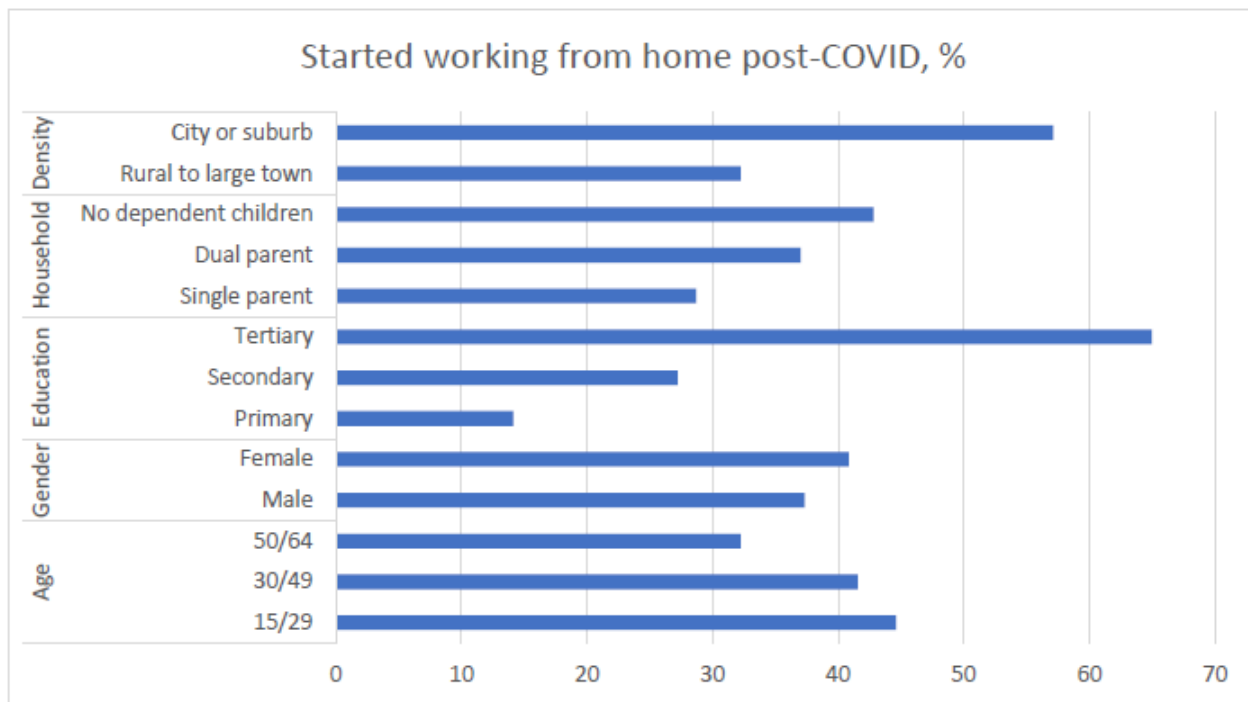
The structure of the paper is composed of four sections. The introduction is followed by an overview of the transformation process caused by Covid-19 in the working culture in Europe, including emerging remote working practices, such as teleworking, remote, and agile working, and decreasing trends of commuting and the need for non-physical proximity (Tschaepe, 2020). Section 3 focuses on the definition of telework typologies. Section 4 presents and discusses the benefits of teleworking on the worker's productivity, innovation, quality of life, and well-being, and the role played by coworking spaces, and specifically by the community-led coworking space. Lastly, the conclusions sum up implications and key considerations of local coworking spaces' potential to develop and implement a sustainable lifestyle.

2. Emerging remote working practices: a European perspective

During the Covid-19 pandemic, remote working (from home or elsewhere) has vastly increased, and the working practice of smart working has become part of our everyday life. Although the term 'remote working' can be associated with several meanings and interpretations, the most popular definition is 'Any activity that involves the processing of information and its delivery via a telecommunications link that is carried out away mainly or partly from the main premises of an organisation' (Kylili et al., 2020; Felstead, 2012; Felstead and Henseke, 2017; Hardill and Green, 2003). However, remote working is a general umbrella term that includes other flexible ways of

working, such as teleworking, smart and agile working, and working from home (ILO, 2020; Manzini Ceinar et al., 2021). Each relates to the spatial distribution of work and is interrelated with, inevitably, some degree of overlapping.

Figure 1. Working from home during Covid-19 crisis (EU 27) %: work and personal characteristics
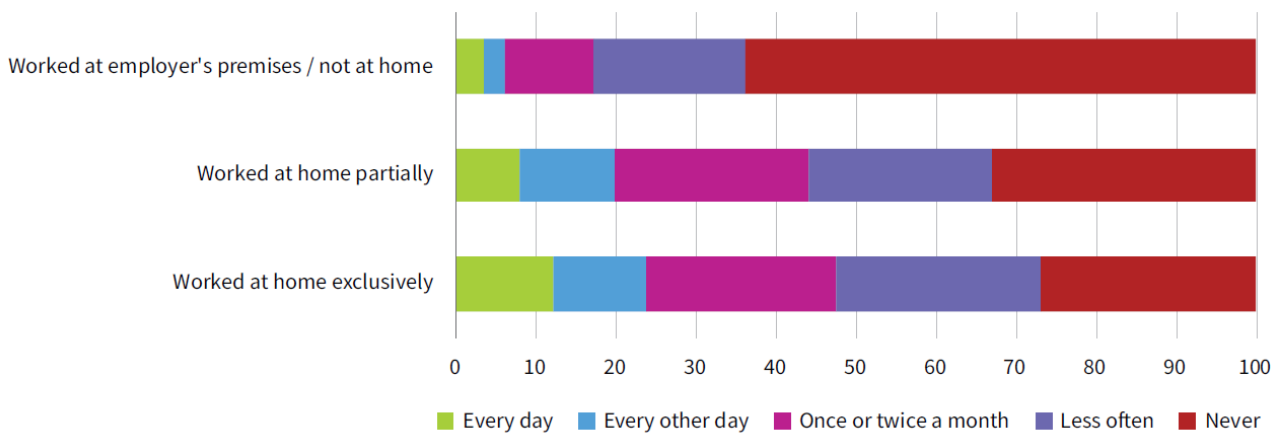

Note: no data for Slovenia.

Source: Sostero et al. (2020, p. 22)

As shown in Figure 1, employees with third-level degrees and those residing in cities or city suburbs were much more likely to telework than others post-outbreak. Moreover, high skilled workers, workers without children, and those younger than 50 years are more willing to telework. These data underline the issue of work-life balance: the home with children is not the best place to work in.

Another interesting survey, developed by Eurofound (2020), is titled: "Living, working and Covid-19". It has been carried out during the lockdown phase (April 2020) and in the second phase (July 2020), when many countries were starting to relax the restrictions. The results show that working from home during the Covid-19 pandemic has been considered positive for the majority of employees who did so: 78% of employees in the July round of the e-survey indicated a preference for working from home at least occasionally if there were no Covid-19 restrictions (Figure 2). A

positive outcome is that those who regularly experienced teleworking before the pandemic have indicated a preference for teleworking post-crisis and at a greater frequency.

Figure 2. Preference regarding the regularity of working from home if there were no Covid-19 restrictions, by teleworking status, EU27 (%)

Source: Eurofound (2020, p.34).

The crisis-opportunity perspective (Hu, 2020) of the pandemic generates new forms of remote working, such as i) smart –or agile– working – working partly outside the office and partly at home to accommodate who needs to balance work and family commitments (Weber et al., 2020), and ii) teleworking – often considered a form of organising and/or performing work remotely from anywhere, using information technology (Sostero et al., 2020). While the former category is mainly related to employees only (Tagliaro and Ciaramella, 2016) allowing them to organise his/her professional activities at home as an alternative to company premises, the latter is often more flexible concept including dependent workers (such as employees and dependent contractors) and independent workers if they perform part or all their work away from their default worksite (Mandl et al., 2015).

The concept of teleworking is not new. Its early form dates back to the 1970s (Nilles, 1975), and debates about its pros and cons and efforts to practice it have experienced booms and busts. The recent boom in telework has directly resulted from the latest technological advancement and growing dominance of the knowledge economy. Access to interconnected, ubiquitous, and synchronous information revolutionizes the work for the knowledge economy that is digital, innovative, and collaborative. Moreover, the vital link between teleworking and travel behavior is affecting the use

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of cities. The capability to work anywhere and anytime disrupts the perceptions and practices of space uses and regulations and calls for new spatial cognition that is post-industrial and post-functional. Spatially based urban functions are blurred or co-exist, and new functions and spaces are created (Di Marino and Lapintie, 2017). In fact, from the literature since the early '90s onward, teleworking has gradually become a travel demand management strategy to reduce all the negative impacts on well-being, significantly reducing community time and flattening the curve of commuting at peak time (Elldér, 2020).

3. Typologies of telework

The concept of telework depends on several characteristics (Madsen, 2003), such as intensity timework, whether teleworking occurs during traditional or non-traditional working hours, and telework location according to the proportion of time an employee works from a place other than a traditional office space (Nakrošienė et al., 2018). This implies positive and negative effects on multiple aspects, such as location choice, commuting trends, travel costs, urban development, etc. Table 1 summarizes telework type based on the typology of work carried out by workers and their location.

Table 1. Typologies of telework

Type of telework based on location choice	Type of work	Example of workers
Multi-site telework	Work that is partly based at home and somewhat at the office (Huws, 1997).	Mainly, workers who have employment contracts with an organisation and partly or wholly work from home during traditional or non-traditional working hours (Nakrošienė et al., 2018).
Tele-home working or teleworking from home.	Work that is done entirely from home and where a teleworker has a work agreement for a single employer (Huws, 1997).	Both workers who have employment contracts with an organisation and partly or wholly work from home during traditional or non-traditional working hours, as well as independent workers who have no permanent labour contracts with organisations, such as freelancers (Nakrošienė et al., 2018).
Teleworking from a fixed location (e.g. coworking space) or *freelance telework*	Work that is done from home or a place other than an office and where	Mainly, workers working independently and having no permanent labour contracts with organisations, such as freelancers (Towers et al., 2006).

	a person has a work agreement with multiple employers (Huws, 1997).	
Teleworking from multiple location or *mobile-telework*	Work that is done mostly on a variety of different sites, like customer premises using telecommunication technologies (Huws, 1997).	Salespeople, delivery drivers or investment bankers are examples of mobile teleworkers (Martinez-Sanchez et al., 2008).

Source: Authors' elaboration

The table emerges that types of work can impact location choice patterns and the following dynamics in terms of travel behaviour. Thus, scholars have concluded that tele-home workers (Huws,1997) tend to display reduced activity spaces (Pendyala et al., 1991) because their activities tend to be centred around their residence, contrary to what happens for other categories of workers whose activities tend to be oriented toward their employment area, such as freelance teleworkers. The recent development of telework arrangements is directly related to the residential location where teleworkers tend to live further from city centre and central business districts, resulting in significant car dependency and longer commute (Cerqueira et al., 2020). Evidence shows that households move also out in suburban areas, where there is a higher likelihood of their local trips being made by car (Yen, 2000), producing a more sprawl suburban-type development where transport is less available. Households with at least one tele-home worker tend to travel more and have larger travel budgets than other households do (Melo and de Abreu e Silva, 2017). However, tele-home working implies i) an increasing domestic energy consumption during the day (Baker and Rylatt, 2008), ii) an increasing level of business trips, such as delivering goods and visiting customers in residential areas.

The rapid development of mobility over the past decades has allowed workers to access multiple places faster and changes in work arrangements also mean that some workers have multiple places of work (Koroma et al., 2014). The so-called mobile teleworkers have considerably different travel-behavior than regular commuters with a single workplace (Aguilera et al.,2009). These individuals tend to make more work trips than regular workers. Besides, the authors show that the average distance traveled for business purposes is short, implying that non-regular workplaces are mainly situated close to the principal workplace. Thus, mobile teleworkers and freelance teleworkers may drive more for both daily work and non-work trips than non-telecommuters (Volosin et al., 2013).

4. The effects of teleworking and the role of local coworking spaces: a review

The literature on the effects of teleworking is rather vast and new papers are published every day. The present paper has mainly focused on the studies collected in the period March-September 2020 (lock-down and II phase), exploring the following two aspects: (i) the impact of teleworking on workers in terms of productivity, quality of life and wellbeing, and (ii) the effects of coworking spaces on their users, including teleworkers, with a focus on local coworking. As the literature will underlines, there is no univocal consensus on the effects, however, a large majority of studies emphasize positive ones.

4.1. Workers' productivity, quality of life and well-being

The effects of remote working and other forms of working relate to "workers' habits", which has been altered since workers are mainly working from home or 'third places' (Oldenburg, 1989). The evidence on workers' effects is not univocal: some studies underline positive results, others negative. Among the former, some studies and reports have linked remote working with added benefits for both employers and employees, such as improved work-life balance and fitting in of family commitments with work, elimination of time wasted for commuting in the short-run (Andreev et al., 2010), flexible work hours, reductions in lowering office equipment costs (Kylili, et al., 2020) and improved geographical coverage (Nickson and Siddons, 2012). In terms of working preferences, a survey by Gallup (Brenan, 2020) shows that 3 in 5 employees currently working remotely due to the pandemic would like to continue doing so. People enjoy getting the time back from commuting to and from an office and like the flexibility of doing laundry, running errands, and picking up kids when it suits them.

People have not embraced remote working before because they are not working as hard or producing as much when not being supervised at an office. Now data shows the opposite: people who work remotely can be even more productive and efficient than working in an office environment, as long as we have ideal conditions (The Economist, 2020; Blasche et al., 2018). Glenn Dutcher (2012) found that remote working positively affects the productivity of more creative jobs rather than repetitive ones. According to McKinsey research (Boland et al., 2020), 80% of people questioned report that they enjoy working from home. About 41% say that they are more productive than before, and 28% are productive. Many employees have found more effective ways to spend their time, once liberated from long commutes and travel during rush hour. This allows them to enjoy greater flexibility in balancing their personal and professional routines.

Similarly, a Stanford study conducted in 2015 highlighted the increasing level of productivity (13%) and boosted (50%) when experimented remote work trial at a Chinese company. A recent Italian survey reveals that [...] during the months of the emergency, the vast majority of teleworkers rated their concentration in work activities (73%), effectiveness (76%), productivity in value (72%), and support for innovation (65%) as good or excellent (Osservatorio Smart Working, 2020).

Results of the study by Shamshiripour et al. (2020 a, b) show that working from home carries a high potential for moving towards a more sustainable future (Ettema et al., 2010). The underlying literature supports the significant influence of policies to promote telecommuting on alleviate traffic congestion and improving air quality (Shabanpour et al., 2018). As a practical way of influencing the workers' preferences, the study results highlight the significant role of their productivity while working from home. Although the "new telecommuters" in their sample evaluate their productivity in various ways, the "workability of their home environment" is a common theme in their evaluations. The two most reported reasons for negative productivity were distractions in the home environment, and lack of a comfortable working environment at home (Roriguez-Modrono, 2021; The Economist, 2020; Shabanpour et al., 2018). At the same time, two of the first three most common reasons behind positive work productivity levels at home are also related to the home environment. In terms of work-life balance and well-being, De Vos (2020) discussed the potential implications of social distancing on daily travel patterns and, accordingly, provided some suggestions for policymakers. The authors highlighted that stay-at-home might threaten individuals' subjective well-being, causing limited physical activities and social isolation. According to this study, promoting active travel behavior is a potential solution for policymakers to encourage individuals to maintain a satisfactory level of well-being.

Among the studies underlying the negative effects of teleworking, several papers illustrate how teleworkers report total travel than those who do not telework (Elldér, 2020; de Abreu e Silva and Melo, 2018a,b, 2018; He and Hu, 2015; Zhu, 2012), and even that telework increases commuting duration (de Vos et al., 2018) and length (Melo and de Abreu e Silva, 2017). With Covid-19, teleworking has been massified in several sectors and occupations, with multiple implications and impacts. In terms of travel behavior, people mainly work from home due to the uncertain situation, at least in the short term. However, studies reveal that even in the short-term, there may be negative effects, such as the 'less trip chaining' (de Abreu e Silva and Melo, 2018a,b) – people who make more separate trips. In fact, if people do not go to work because they work from home, there are two main scenarios: i) if services and amenities, such as supermarket, gym, kids' school etc., are clustered close to their home perhaps they do not use the car, ii) if services and amenities are out of the

residential area, they make more separate trips by car. Moreover, some empirical analyses underline the adverse effects of teleworkers experience at home. A recent survey by the Osservatorio Smart working of the Politecnico di Milano (2020), on a sample of 572 workers in Italy, shows that tele-home workers complain about: (i) inadequate technology; (ii) risks of isolation; (iii) feeling to be constantly connected; (iv) low work-life balance.

However, some scholars predicted the benefits that teleworkers working locally can have in terms of socio-local development and even regeneration trends. This can be supported by the spread of 'local CS' and community-led approaches in residential areas, which will be explored in the next section of this article.

4.2. The local model: community-led trends for suburban revitalization

Another interesting issue to be considered concerns the "Third place" teleworkers might choose as a workplace to enhance their performance, well-being, and quality of life. It is worth acknowledging among the Third places: coworking spaces, innovation centres, creative hubs, open workshops, etc. Specifically, CSs are defined as potential 'serendipity accelerators' designed to host creative people and entrepreneurs, who strive to break isolation and find a friendly environment that may favour meeting and collaboration (Moriset, 2014; Akhavan, 2021). Kwiatkowski and Buczynski (2011) have defined coworking by five central values: collaboration (cooperate and co-create shared values), community (intangible benefits, shared objectives), sustainability (offset the environmental footprint of the space), openness (knowledge exchange, information and people), and accessibility (both financially and physically).

The CS users are the coworkers, which can vary from freelancers, self-employed individuals and entrepreneurs to dependant contractors, consultants and employees with diverse professional profiles and competencies. Their fields mainly range from the creative industry – such as architects, designers, journalists, etc. – to engineering and digital sectors – namely IT, software developers, consultants, etc. (Spinuzzi, 2012; Mariotti and Pacchi, 2021). Mariotti et al. (2017; 2021c) described the positive direct and indirect effects of CSs on both the coworkers and the local context. Since the remote workers hosted in a CS can be assimilated to "coworkers", this section explores the positive effects on both of them (Table 2).

CSs exploit the following positive effects: (i) cost savings (office rental, office energy consumption, employees' commute times) (Bentley et al., 2015; Yu et al., 2019); (ii) reduce risks of isolation; (iii) increase meeting opportunities, boost business collaboration and promote innovation (Capdevila, 2013; Jakonen et al., 2017); (iv) foster employee work productivity (Voordt, 2003),

working efficiency, economic performance/earnings growth (Mariotti and Di Matteo, 2020); (v) boost coworkers' job satisfaction and well-being.

Similarly, teleworkers relocating from home to a local CS may experience positive externalities, which might spill over towards the company the worker belongs to. Indeed, while coworkers are mainly freelance and autonomous workers, remote workers are mainly employees of the public administration and the private sector. As such, their main aim is to: (i) access to adequate technology; (ii) reduce risks of isolation; (iii) reduce the feeling to be constantly connected; (iv) lower costs for employee (for example, by providing access to a cheaper habitat, or by reducing commuting times); (v) foster employee work productivity and working efficiency; (vi) improve job satisfaction and well-being; (vii) enhance work-life balance; (viii) avoid the reinforcement of traditional gender roles (Rodriguez-Modrono, 2021).

So far, CSs have proven to be a profitable business and expand the scope of businesses by supplying essential services (wi-fi, secretary, printing, etc.) and supplementary services that are welcomed by entrepreneurs and the self-employed (Bouncken and Reuschl, 2018). CSs offer their hosts a multi-professional environment, characterised by a sense of community (Capdevila, 2013; Jakonen et al., 2017; Garrett et al., 2017), which is expected to reduce their risks of isolation (particularly high in-home working) (Mariotti et al., 2021d). Working in a CS instead of at home also means following a schedule and clearly distinguishing the time to stay home to take care of family commitments and duties and work. The work-life balance requires differentiated time and space, which reduces the feeling to be always connected. Remote working, also in a CS, can be a way of reducing costs for employees (for example, by providing access to a cheaper habitat or by reducing travel) while at the same time increasing the quality of life (Capdevila, 2018).

Indirect effects can also be associated with urban and transport planning and policy design (Table 2, see also Akhavan et al., 2019; Mariotti et al., 2017; 2021a). Indeed, due to flexible work locations and working hours, new working spaces can change energy use patterns both at home and related to travel/transportation (Schipper et al., 1989). Telecommuting has proven to reduce travel (Mokhtarian et al., 1995), and therefore reduce congestion (Zhang et al., 2005), as daily commuting to and from work can be an important cause of urban traffic congestion. In this regard, Ross and Ressia (2015) have shown that coworking has reduced commuters' number to work.

As stated by Mariotti et al. (2017, 2021a), at the local level, these effects can be read in the episodic transformation of public space (i.e., new urban equipment, spaces designed for rest or leisure, art and cultural installations) or in the modification of the daily and weekly cycles of use within the neighbourhood (i.e., sponsoring evening and night activities or weekend events), and in the

contribution and participation in the strengthening of community ties at the neighbourhood level. Finally, other local effects range from traditional services (such as forms of the revitalisation of existing retail and commercial activities, bars, and cafés), to more innovative ones, catering to the different populations who start using the area (i.e., business discount schemes for CSs in neighbourhood shops and services).

Table 2. The positive direct and indirect effects of CSs – the case of remote workers

Direct effects	Coworkers		Teleworkers	
	Cost savings (office rental, office energy consumption, employees' commute times) reduce risks of isolation, increase meeting opportunities, boost business collaboration, promote innovation, foster employee work productivity, work efficiency, economic performance/earnings growth, and boost coworkers' job satisfaction and well-being.		Access to adequate technology, reduce risks of isolation, reduce the feeling to be always connected, reduce costs for employee (for example, by providing access to a cheaper habitat, or by reducing commuting times), foster employee work productivity and working efficiency, improve job satisfaction and well-being, enhance work-life balance, and avoid the reinforcement of traditional gender roles.	
Indirect effects	Urban space	Practices		Environment/Planning
	• Confirmation of urban attractiveness • Development of spontaneous aggregation in districts • Episodic transformation in the public space (temporary installations, permanent/new equipment)	• Contribution to the development of innovative services • Extension of daily and weekly cycles of use • Episodic participation in the strengthening of community ties (i.e., Social Streets) • The revitalization of existing retail and commercial activities • Strengthening mini clusters of creative and cultural productions		Reduction of: • pollution, • traffic congestion • energy use patterns both at home and associated with travel/transportation

Source: Authors' elaboration on Mariotti et al. (2017; 2021a) and Yu et al. (2019)

Therefore, teleworking in a local CS has multiple benefits for both the employee, the company and the overall neighbourhood.

The geography of work has been affected by the growth of teleworking, indeed during the pandemic. People worldwide experimented with the fast pace at which virtually technologies for videoconferencing and other forms of digital collaboration were adopted. The shift in the working culture has an unprecedented impact on people worldwide, moving towards a more flexible way of working not only for freelancers and self-entrepreneurs but mainly for employees. In this panorama, it should be highlighted that telework (Scaillerez and Tremblay, 2016; Tremblay, 2003) and the development of coworking (Tremblay and Krauss, 2019) could improve the dynamism and growth

of regions while offering a flexible option to medium and large size company. Besides, there is recent evidence about moving out of the city towards the hinterland and peripheral areas. A Harris Poll survey (Harris Poll, 2020) shows that nearly a third of urban residents consider moving to less densely populated areas. In the United States, almost a third of urban residents believe moving to less densely populated areas (Harris Poll, 2020), while Realtor.com has seen a 13% jump in searches for suburban zip codes in the last months of 2020.

One of the pandemic reactions is the mass moving of young generations from big and expensive American cities, bringing their jobs with them. This phenomenon can be seen as a longer underlying direction of change that many cities have already experienced, mainly in the US. As companies move away from expensive cities, the impact on infrastructure and local service jobs are enormous. There will be significant and long-lasting effects on restaurants, transportation, retail, real estate and more as customers' number decreases. In July 2020, Barbados began issuing 12 months visas for people to "work-from-home" from the island. The idea behind the visa is to attract people to stay longer and relocate rather than relying on tourism during heightened travel restrictions. Georgia and Estonia have also issued temporary permits to attract remote workers through "Remote Work Visas/Digital Nomad Visas" (Republic of Estonia, 2020; Kucheran,2020). In Italy, freelancers and digital nomads are moving to peripheral locations to experience a higher quality of life, stimulating suburban economies, and catalyse phenomena such as what has been defined 'south working' (South-Working, 2020; Mariotti et al., 2021b).

Some pilot studies regarding local trends in coworking economy were already explored in the pre-Covid-19 era. Merkel (2015, p.122) argues that "*CS is an urban social practice highlights alternative ways of organising labour in the city of the twenty-first century*", that emerged as grassroots/bottom-up solution to reclaim and re-appropriate urban space. Jamal (2018, pp.1-2) explores how CSs help foster economic development in Canada, concluding that "*CS provides a unique lens to view how community-based partners can contribute to local economic development*". According to Babb et al. (2018) a local CS in the peripheral area of Perth (Australia), can provide marketable features, such as free parking, which was thought to attract suburban workers. A local CS can be used by teleworkers living nearby as a community hub for economic integration and social inclusion – the 'sociable model' that should be considered relevant to developing the outer sub-urban neighbourhoods (Reuschke, et al., 2017). Based on Avdikos and Merkel (2020) recent definition, local, resilient (Gandini and Cossu, 2019) or community-led CSs focus on freelance workers, offer work and training opportunities and innovation, and are more embedded into their neighbourhoods. Referring to the suburban or neglected areas, innovation can produce several benefits, such as

generate activity turnover and employment, strengthen the attractiveness of the territory, reduce costs for the community, attract and/or maintain populations by developing services to the public, and so on (Avdikos and Merkel, 2020). Many of them pair with charities, local associations or co-operatives, aiming at supporting the local community, while even becoming vital pieces of local resilience during Covid-19 as work shifted away from global urban areas.

Although local and community-led trends in the coworking economy were already ahead of the game before Covid-19, the pandemic accelerated the need for a hybrid space between home, a shared office and a community space, aiming at providing affordable workspace and work opportunities firstly to local people, and then to attract teleworks from other areas. Due to their bottom-up nature, and less stable economic sources of funding, community-led have been mostly affected by the Covid-19 impact. However, studies revealed that community-led CSs have more potential in the long term for providing spatial opportunities to people working remotely who want to escape from the city centre, as well as to companies for relocating their employees (Mariotti and Di Matteo, 2020; Manzini Ceinar et al., 2021). This leads to a partial displacement of people, including teleworkers, from the urban areas in favour of the suburbs and rural areas.

4. Discussion and conclusions

Remote working has massively grown during the Covid-19 pandemic, generating new and diverse declensions of the concept that will most likely be absorbed in the post-pandemic working culture. Those flexible and intermittent working methods, particularly teleworking, represent a structural change that is inevitably increasing in the coming months and years (Tremblay, 2020), despite some workers still wanting to return to their usual workplace. The existing literature emphasizes the positive effects of teleworking on the workers' performance in terms of productivity, quality of life, and well-being. Those who work from home are significantly more productive if their home-office provides comfortable and energetic workspaces, with opportunities for restful breaks and minimal disruptions. Nevertheless, some studies have shown that tele-home working is not always the best solution due to the lack of adequate technology, sense of loneliness, risks of isolation, and low work-life balance. Within this context, some more flexible working spaces, mainly if they act locally like local coworking spaces, can represent an excellent alternative to fight isolation and provide a friendly environment favouring collaborative communities and mutual support, and create social capital, which is essential for business development because it improves access to strategic information, potential clients, collaborators and investors (Jonsson and Lindbergh, 2013).

Therefore, it can be stated that, in general, teleworking has positively affected workers' productivity, quality of life and well-being. Nevertheless, when the home is not the best place where

to work, coworking spaces can be considered a good alternative for teleworkers and home-workers, thus enhancing wellbeing and work-life balance.

So far, little is known about the role of local coworking model during Covid-19 and their ability to reshape their structure to host teleworkers. We will argue that understanding the diversity of community-led approaches in the coworking economy, and their role in attracting teleworkers while support the local community is critical to evaluating their potential for social resilience and local development during and post Covid-19.

Some cities, like Milan and London, have recently adopted several initiatives to re-thinking the urban dynamics to face the current pandemic. The promotion of a "local coworking model" has emerged to support local teleworkers and host telecommuters working from home (for the Milan case, see Mariotti et al., 2021d; Pais et al., 2021; Manieri et al., 2021). A local coworking can be conceived as a hybrid space (Migliore, et. al. 2021) between a shared office and a community space, which aims to provide community support, affordable workspace, and work opportunities local residents, as well as attracting teleworkers living in other areas. Local coworking can offer several social services: from support to female entrepreneurship by providing babysitting services to support to individuals, freelancers, and start-ups by providing opportunities for training, workshops and community development (Mariotti et al., 2021c).

In London, the concept of local CS is boosted and promoted by the several local districts and associations, such as the London Coworking Assembly, and many local CSs are spreading in residential areas, such as the Good Club Neighbourhood Work Club, which local residents have created to support their community in pandemic times. The local coworking model is strongly related to the extended discussed concept of the 15-minutes city and theory of proximities (Mariotti et al., 2021d; De Valderrama et al., 2020; Pozoukidou and Chatziyiannaki, 2021).

Nevertheless, teleworkers are also located in suburban and peripheral areas where they live if these places are characterised by good digital connectivity. Therefore CS, which is an urban phenomenon, is advocated in these places because it may become a driver of economic change while retaining the creative class and knowledge workers in the periphery and thereby increasing competitiveness and performance of remote areas (Fuzi, 2015, Capdevila, 2018; Mariotti and Di Matteo, 2020; Mariotti et al., 2021a), as well as increasing the urban quality and individuals' well-being (Manzini Ceinar and Mariotti, 2021). Therefore, CSs can produce effects on their local context and immediate surroundings.

The world is still fighting Covid-19. Grave uncertainty and challenges lie ahead. We do not know yet when and how this crisis will end; it tests the collective intelligence, adaptability, resilience,

and collaboration of human beings. The individual responsibility of workers will probably be further burdened by the shift in the working culture and the need to negotiate employer demands in a more isolated context. In human history, those grave crises were often great opportunities for new inventions—technological or institutional—to advance human society and well-being. In this, a heightened and more socially and politically aware coworking scene will surely be able to play a fundamental role in offering us a new way to work, live and advance.

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