

Northumbria Research Link

Citation: Rudnicka, Anna, Newbold, Joseph, Cook, Dave, Cecchinato, Marta, Gould, Sandy and Cox, Anna (2020) Eworklife: developing effective strategies for remote working during the COVID-19 pandemic. In: New Future of Work, 3-5 Aug 2020, Online.

URL: <https://www.microsoft.com/en-us/research/event/new-future-of-work/>

This version was downloaded from Northumbria Research Link:
<http://nrl.northumbria.ac.uk/id/eprint/45905/>

Northumbria University has developed Northumbria Research Link (NRL) to enable users to access the University's research output. Copyright © and moral rights for items on NRL are retained by the individual author(s) and/or other copyright owners. Single copies of full items can be reproduced, displayed or performed, and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided the authors, title and full bibliographic details are given, as well as a hyperlink and/or URL to the original metadata page. The content must not be changed in any way. Full items must not be sold commercially in any format or medium without formal permission of the copyright holder. The full policy is available online: <http://nrl.northumbria.ac.uk/policies.html>

This document may differ from the final, published version of the research and has been made available online in accordance with publisher policies. To read and/or cite from the published version of the research, please visit the publisher's website (a subscription may be required.)

Eworklife: developing effective strategies for remote working during the COVID-19 pandemic

Anna Rudnicka¹, Joseph W. Newbold^{1,2}, Dave Cook¹, Marta E. Cecchinato², Sandy J.J. Gould³ and Anna L. Cox¹

1. University College London

2. Northumbria University

3. University of Birmingham

Abstract

The COVID-19 pandemic means governments have advised citizens to engage in “social distancing” measures, which include working from home. Many people have had to learn how to work from home and develop effective strategies in a very short period. This especially rapid move to remote working is unprecedented, so we do not know how this shift is affecting people’s working lives. We developed a mixed-methods survey and a series of in-depth interviews, through which we investigated the new challenges for people in managing digital self-control, maintaining productivity and work-life balance that have surfaced during the COVID-19 crisis. We also catalogued the strategies participants adopted through the first stages of lockdown in response to these challenges. From this, we draw research and policy implications for supporting neophyte remote workers when managing digital self-control, productivity, and work-life balance during and beyond the COVID-19 pandemic.

Keywords

Working from home; work life balance; COVID-19

Introduction

Productivity relies on workers being able to both focus at the appropriate time and disengage at other times to recover from work-related stress and maintain a healthy work-life balance. During lockdown workers were suddenly forced to live and work at home, making it difficult to maintain healthy work-life balance and effective coping strategies for work-related stress.

Even experienced remote workers have a hard time developing such strategies. Prior remote-worker research [20] reveals the challenges faced: high levels of focus are difficult to achieve when surrounded by physical and digital distractions and having to fit work around caring responsibilities. Disengaging from work is also difficult when physical locations and personal technologies serve both work and non-work needs [29]. Cook showed that neophyte remote workers overlook the role of self-regulation strategies, not foreseeing how working in non-traditional workspaces might make balancing work and non-work difficult [6]. Therefore, there is a need to better support both experienced and novice remote workers so that they can develop strategies to manage competing demands in a way that meets their personal needs, constraints, and preferences.

With COVID-19, the impact of the forced Working from Home (WfH) transition is likely to create new challenges and barriers to remote working. A survey from Slack HQ estimates over 16 Million knowledge workers in the US were transitioned to remote work in the first few weeks of the declaration of the COVID-19 pandemic on March 11 [27]. This unprecedented number of remote workers is likely to have a large impact on the future of work, with many wondering if workers will continue to work remotely long-term, if not adopt a more hybrid working style, i.e. part-time remote [10, 11].

In this paper, we present a qualitative questionnaire and follow-up interview study which explores the new challenges workers are facing during lockdown as well as new strategies they have adopted in their new situation. From this we describe several strategies that may

support people WfH. Finally, we make a series of recommendations for policy, supporting the new future of work, and developing new research questions on this topic.

Background

There is a long history of research in HCI and CSCW investigating how workplaces are constructed, maintained and dismantled through technology – and how these processes affect productivity. Our target sample for this work is broad, as we seek to understand the broader organisational aspects of work. With these higher-order characteristics our focus, we do not consider the lower-order aspects of individual task management in this paper.

Researchers have investigated teleworking and flexible working practices, especially in relation to how workers manage transitions and disruptions between work and personal life. Considering the COVID-19 pandemic and our focus, prior work research on how the home becomes a place of work is particularly relevant. Back in 1989, Kraut classified those who worked from home into three categories: the *self-employed*, i.e. those that work exclusively from home; the *substitutors*, i.e. those who nowadays would be referred to as flexible workers because their workplace allows them to work remotely with more or less regularity; and *supplementers*, to refer to those who work additional hours, usually unpaid, and often outside of traditional working hours such as during evenings and weekends [19]. Arguably, this last category has now become a sub-group of *substitutors*, given the ability to work ‘anywhere, anytime’ [26]. In each one of these categories, the ‘home office’ has different connotations, depending on the status of the worker, the work, and the space available at home. As Lascau *et al.* found, even those WfH more regularly might not have dedicated, undisturbed spaces to work from when in the privacy of their house [20].

Work-home boundaries can be a healthy mechanism to define different life realms and can even help manage stress [2], but they need to be constantly sculpted [5, 6] around individual preferences and professional differences [4]. Moreover, they can be even harder to establish and maintain in the context of WfH [21]. Moreover, prior work shows that there is an increased (perceived) pressure to demonstrate that WfH is still productive, leading to work becoming task-based, rather than time-based [17]. This in turn results in long working hours and difficulties in disconnecting. Those with caring responsibilities (most often women) can find it even more challenging to balance work and life from home. Gregg (2011) found that in order to keep an eye on children whilst WfH, women would generally set up ‘office’ in a central location of the house [16]. Indeed, initial evidence has been reported in the news during COVID-19 around how lockdown has amplified gender stereotypes around the household [8]. Thus, it is no surprise that while often a supportive environment, the home can become a place of tension, especially when work and personal life boundaries blur.

Integrations of work and non-work have led scholars to identify an ‘autonomy paradox’ [22] in which the flexibility technology offers, initially promises workers control over their work, but demands constant availability. Arguments are intensifying that due to both the increasing adoption of remote working and the autonomy paradox, additional efforts are required to separate work and home life, if one is to maintain a work/life balance [6, 9, 22, 23, 30]. Melissa Mazmanian clearly articulated the growing intensity of boundary management when she wrote: “Separation takes work, planning, and new forms of communication” [15, p.3]. In this context the task of managing work/life boundaries means that flexible work – which initially seems liberating - can also create new pressures and a culture of precarity and coercion.

Within these wider cultural debates strategies for dealing with any blurring of work and life are thus highly personal and are also connected to technological infrastructures [18]. More than a decade ago, Oulasvirta and Sumari had already identified how managing different

devices can be problematic because of the mental and physical demands associated with cross-device interaction for work [25]. More recently, work by Cecchinato *et al.* and Fleck *et al.* found that devices can be intentionally kept separated as a way of managing work-home boundaries [3, 13]. However, there is still an amount of meta-work necessary to set up devices and technology to work according to one's own preferences, which not everyone might be familiar or confident with. When thinking about how this might translate in the context of COVID-19 and the sudden, massive shift to WfH, even more issues arise: spaces to work, dealing with new distractions, and the presence (or absence) of support systems.

It should be noted that pre-COVID-19 arguments do not consider a world where no-one is in the office and everyone is WfH. In a new future of work, it seems that there will be an increase in remote/hybrid work, and workers and employers will need support transitioning from the traditional office environment. This research builds on this prior work and explores a world where most workers are WfH. Understanding how workers have had to quickly adapt to the new normal and the issues they face will help in supporting remote and hybrid workers in this new future of work.

Method

Recruitment

We recruited participants through dedicated social media accounts (Twitter and Reddit) and through word of mouth. Participation was open to individuals over the age of 18. Recruitment on Twitter was amplified through paid advertisements. Survey respondents did not receive monetary remuneration, however they received recommendations to support remote working. We analysed data of the first 349 respondents who completed the full survey. Two respondents who did not work remotely were removed from the analysis, resulting in a sample of 347 respondents. We emailed respondents, advertising an opportunity to participate in a paid (£20, ~ USD\$25) 1-hour interview, with the following inclusion criteria: aged 18+, residing in the United Kingdom, WfH 3+ days per week during lockdown, but only one or no days WfH before lockdown. We scheduled the 25 interviews on a 'first come first serve' basis.

Materials

The online survey was structured as follows: Participant Information Sheet, consent form and contact details request, open-ended questions, Demographics section, several scales related to working style (which fall outside the scope of this paper), and personalised recommendations to support remote working. The open-ended questions asked participants to reflect on the issues they faced while working remotely and the strategies they used to address them. Interviews were conducted using a semi-structured approach. Questions were designed to facilitate understanding of the challenges and strategies related to WfH during lockdown. Materials included an online consent form, a list of questions and a list of themes.

Design/Procedure

Participants accessed our survey on the Qualtrics platform. Following consent, participants answered open-ended questions, questions related to working style (allowing us to provide them with personalised advice), and Demographics questions. The survey ended with a message providing personalised work from home advice.

Twenty-five survey respondents also took part in interviews. Interviews were conducted by three researchers, lasting on average between 30 and 60 minutes. Upon the completion of the interview, the participant received a debriefing message and a gift voucher via email.

Results

This paper aims to highlight the difficulties that arose when WfH during lockdown, and the strategies some workers used to address them. We note, however, that many participants were not able to incorporate effective strategies due to factors outside of their control. We emphasise that while some difficulties can be addressed through personal strategies, others will require a shift in approach by employers and policymakers.

Participants

Survey respondents (n=347) ranged from 21 to 72 years old (m=40, SD=11) and included 251 females, 85 males, 3 non-binary and 1 transgender participant (n=7 undisclosed), educated to n=3 GCSE, n=14 A-level, n=100 undergraduate, n=138 postgraduate, n=92 doctoral level.

Interviewees ranged from 24 to 68 years old (m=45, SD=12) and included 20 females, 4 males and 1 transgender participant, educated to n=5 undergraduate, n=12 postgraduate, n=8 doctoral level. Five interviewees lived alone, four lived with children under 18 years old.

We adopted a thematic analysis approach to data analysis [1]. Survey data and interview data were analysed separately by two researchers. Results were then collated.

While interviewees were recruited from amongst survey respondents it is likely that, due to time and technological constraints, our interview sample had fewer caring responsibilities and greater familiarity with remote work tools.

Getting work done

While WfH during lockdown, the participants had to cope with enormous changes to their social work environment. Where before, they would typically be surrounded by colleagues focused on similar goals, in lockdown they worked while surrounded by family or flatmates, which often involved meeting demands that were either unrelated or in direct opposition to work goals.

Issues

Distractions

Being in the same space all the time also meant that people had to deal with additional distractions. This included noise from neighbours and interruptions from delivery drivers etc. Several participants found it hard to ignore home-related responsibilities such as chores, while trying to focus on work and found it *“Very easy to divert activity to other home-based activities”* **S251**.

As one participant explained, *“It's harder not to be distracted [at home] during the working day when doing essential but less engrossing tasks, so it's easy to snack or watch a quick video or similar before getting back to work”* **S306**. This was especially difficult for some participants when it came for more difficult or creative tasks. As one participant said, *“it's quite difficult to sit here and focus for a long period of time without getting up and wandering around, which is not so easy in the office.”* **I19**

Many issues were linked to a lack of structure when WfH: *“Every day is the same”* **S63**, the *“sense of time is vaguer”* **S171**, and *“the workday has no end”* **S243**. The distinction between workdays and weekends also weakened, with *“less of a sense of weekends being weekend”* **S225**. One participant noted: *“So, it then felt quite strange in terms of how do I structure the day? Can I take breaks? What...what's the situation here?”* **I18**

Caring for children was both the most common distraction, as well as the most taxing added responsibility. While participants without caring responsibilities reflected on their work-life

balance, parents rarely did so, as they were always working – either fulfilling their professional responsibilities or caring for children. “*The schools are putting pressure on me to get them to finish work. They are all slightly traumatised by the situation and I just want to be there as a mother*” **S253**. An especially hard aspect of childcare during lockdown was the fact that younger children did not understand why parents had to work: “*I hear my kid asking for me and that makes it hard to concentrate*” **S299**.

Issues with Remote meetings

One of the biggest changes to people’s way of working was undertaking all meetings remotely, mostly via videoconferencing tools such as Zoom, Microsoft Teams or Skype. Participants noted that at the start of lockdown many people struggled with learning these new tools and there were difficulties with getting people connected and having their audio/video inputs setup. This paired with an increase in meetings led to a lot of strain on workers. Participants also found they had to become proficient with multiple versions of videoconferencing tools to suit a variety of collaborators, for instance “*what I did was to check with clients what they had available ... I’ve got an armoury of material.*” **I15**.

People found video meetings difficult as the absence of body language cues could make it difficult to read people or to know when to speak, leading to people speaking over each other. The increase in remote meetings led to a particularly salient issue of video call fatigue. As one participant put it, they felt too ‘Zoomed (videoconferenced) out’ - at the end of a day of multiple Zoom calls to be bothered to engage with friends via a social Zoom call’ **S310**.

Solutions

Self-scheduling

Strategies used to cope with the workload included using small chunks of time to accomplish work tasks and breaking work into small manageable tasks where possible. For some, using tools such as to-do lists and calendar applications to help them prioritise and schedule tasks had helped them feel more productive, making their workloads feel more manageable: “*I do put things in calendar, actually. So, there are tasks that are particularly wanting to get done on a particular day, I’ll put them in*” **I1**.

Other participants separated themselves from distractions by setting digital and household boundaries, “*I started blocking notifications on my mobile. I set boundaries and explain to friends/family/partner that I work between set hours and I need to focus*” **S246**. Families found this helpful to schedule worktime around family and caring responsibilities. Some parents shifted their working day and worked with their partner to organise time collectively around childcare and meetings. However sometimes creating boundaries was incompatible with personal goals: “*Putting headphones on at home means completely ignoring family*” **S260**.

Setting new expectations at work helped to create a greater balance between work and personal life. Participants noted that they had accepted that their productivity would be lower and that they could not complete certain tasks. This is something people needed the support of their workplace for: “*I’d said I’d write this paper, there is no way I can write it, and she wrote back saying, ‘I’m not expecting anybody to write any papers at all.’ And that was quite a bit of relief*” **I11**.

Adopting a flexible schedule helped participants better manage their work. Some noted they would be unavailable at certain times of the day due to childcare and would shift the hours of their workday. Others needed to adopt flexible working strategies when their concentration levels changed. However, a flexible schedule did not always address the issue at hand, as some interruptions were non-negotiable: “*I was giving an international webinar to hundreds*

of people and my 1 yr old daughter decided that nap time was completed early. We'd planned the time for the most likely space that she'd be asleep, but alas!" S311.

Remote meeting etiquette and collaborative tools

It was noted by participants that adopting a set remote meeting etiquette helped them feel more in control of their meetings, which then ran smoother. This included having all attendees on mute when notetaking and having a designated meeting chair to formally manage the meeting, as well as simply reducing the number of meetings scheduled and the number of required attendees. One participant noted that their organisation opted for a few shorter meetings in lieu of their previous longer general meetings. Moreover, the use of other aspects of meeting software such as live chat stream was useful to participants, enabling more people to feel involved. However, it was noted that when some meeting members were not aware of the chat functionalities, it could feel like they were being excluded from these side conversations.

Adopting the use of additional collaboration tools helped participants work together remotely. Participants noted using shared documents as well as collaboration tools such as Jamboard and Mural to facilitate joint work. Furthermore, the use of screen sharing was seen as a valuable asset to support remote collaboration: *"If, say, we're helping each other work out a problem, it's a lot easier to see their screen" I2*

Spaces for work

A common difficulty for our participants was the change in space in which they worked, with home replacing the office, and the difficulty transitioning between the different aspects of work and personal life, when they occupied the same physical space.

Issues

Workspace setup

Many participants found it challenging to find an appropriate space to work, whether due to lack of space or other members of the household. Particularly difficult was people having to use the same space for both work and relaxation: *"Monday mornings are very difficult because I spend Sunday relaxing there, and then return to the same location on Monday and have to change my mentality to work thinking" S108.* Some people struggled with living in a small space – *"I live in a single room with my partner. We both need to have phone calls for work, and I'm doing a lot of writing at the moment. Doing these things at the same time is very hard" S243.*

Many participants struggled to fulfil their work tasks without the adequate workspace setup at home. The commonly reported difficulties included inadequate chairs, desks, and monitors. Some participants noted an increase in sedentary time due to taking fewer breaks during the day, which together with inadequate equipment resulted in physical symptoms: *"When I am not working –as a result of my chair not being ergonomically sufficient– I experience back ache very frequently" S318.*

Participants also struggled with insufficient Internet bandwidth, which could create tension during videoconferences, especially if one team member experienced more issues than others did. Lack of printers, lack of sufficient space and inability to access a work server also impacted work, the latter being perhaps most saliently outside of participants' control: *"Work-related mediums, data and information are confidential and stored in the internal server; only available when accessed through company's PC. This makes a lot of work delayed" S244.*

Lack of transition between work and personal life

The shift of all activities into one space made many participants realise that the commute to work had played a key role in their day. It had helped them start and end the day: *"it forces a pattern and timetable to the day"* **S138**, and separate work from personal life: *"my commute serves as a boundary of my work and home life"* **S124**.

Many participants reported working longer hours. For some, this was because they needed to take time out for other responsibilities during their workday. Others, however, found it harder to stop work at the end of the day due to lack of boundaries: *"It's a lot easier to keep working past 5:30 when you're already where you need to be and you don't get the feeling that everyone else has gone home so you should too"* **S212**. Simultaneously, colleagues demanded faster answers to emails: *"I feel like I should be 'on' all day and answering work chats and e-mail right away"* **S341**.

Lack of connection with others

As people coped with demands and disruptions from their cohabitants, they also had to adapt to working without the support they would normally receive from colleagues. Many retrospectively realised that physical presence of colleagues had helped them focus on work, for example, through accountability: *"I'm conscious of using my mobile in work, there is nothing stopping me at home, this is my primary distraction. However, hiding my phone only results in a small increase in productivity and the struggle to focus and persist still exists in contrast to the office"* **S246**.

In lockdown, communicating and cooperating with co-workers was disrupted due to physical distance. Several participants stated that it was harder to communicate when not in person, and one noted needing *"to undertake multiple calls rather than ask a colleague"* **S175**. This loss of ad hoc communication made it difficult to get work done as well as losing valuable social interaction with colleagues. Some participants felt lonely, sharing *"I miss the interaction with my colleagues"* **S297**. Others highlighted the difficulties of socialising with co-workers over the Internet, *"Having an informal chat now takes a lot of organizing!"* **S304**. Another participant reported difficulties with keeping in touch with co-workers: *"Tried having an always-on call with people working, but this creates pressure to talk, which is ultimately more distracting"* **S229**.

Solutions

Workspace setup

Although some participants were able to purchase needed equipment such as chairs or desks, for many the lack of adequate setup was a persistent issue, especially in face of insufficient support from employers and some items running out of stock. This was an example of a challenge that could not be easily solved through personal strategies and where lack of external support could easily lead to inequalities, for example due to inability to pay for equipment of better internet access.

Creating boundaries and post work rituals

Some participants tried to separate workspaces and relaxation spaces within the home: *"Using a dedicated space for work so that I feel like I am at work when I sit there is always helpful"* **S121**. Such separation also aided switching off from work at the end of the day. Additionally, having dedicated workspaces helped signal to other household members that they were not to be distracted. On the other hand, another participant felt that changing their work environment every so often helped with focus: *"I often change which room I am working in after lunch for a change of scenery and to help focus"* **S334**.

These solutions, however, were not available to everyone, due to lack of space. For some, the only remaining boundary between work and home was digital, *“just using my work laptop for everything work-related rather than my personal laptop. That's the only boundary I still have, and so far, it's the only thing that's worked out”* **S245**. In fact, a number of participants adopted the use of different devices for work and personal time, with participants having a different work computer to their personal one. One participant reported benefitting from their flatmate's presence when striving to avoid digital distractions, having *“Asked my flatmate to take other devices such as my iPad and phone until I have reached a certain goal with my work”* **S300**. Likewise, participants noted they would shut their work laptop and put it away at the end of the workday, to avoid being drawn back into work. Some participants discovered that they needed to close down or log out of work tools-such as MS Teams, and that not logging out might signal to their co-workers that they were available to respond to work requests. Many participants, however, struggled with overworking and did not implement digital boundaries [2].

Several participants had separate work and personal accounts, for example for social media, calendars, and personal and work inboxes. Many checked work email on their personal phone but had adopted strategies to not use it during personal time: *“I have the Outlook App on my personal mobile. So, if I get an email during the evening, I often will check it just to make the notification go away. But unless it's an absolute crisis, I wouldn't ever then come and log into my computer to actually reply properly”* **I19**.

Participants were aware that they could replicate the experience of commute to provide a boundary between work and personal life, however some noted that this would require additional effort and motivation, e.g. *“I realise that I could take a walk/go for a cycle for my original commute time ahead of starting and after finishing work to have the same effect. Truth is though, that it's difficult to get motivated to do so!”* **S310**.

Exercise was a common tool used to create a transition between work and personal time, with participants noting starting daily walks, running or yoga to create a transition. Some participants who did not have access to dedicated space also noted that they would clear down their workspace at the end of the day to help them feel work was over.

Support for others and work socialisation

The shift in working culture involved increased responsibility for team members: *“I have the additional concern of not seeing my group members each day/week which allowed me to see how they were doing in a passive way”* **S311**. Responsibility for team members also took more nuanced forms like being always available: *“Recognising that colleagues are now working around the clock, I find myself checking my email to make sure that no-one's needing my input before they then pause their work”* **S310**. This took the form of both emotional support as well as helping co-workers get to grips with new ways of working and technology.

To replicate the lost ad hoc communication people could have in the office, rather than schedule in more video conferencing meetings, participants noted their organisation had start to use more asynchronous work chats to both stay in touch and solve work problems together. *“Whereas now that, there isn't really the time to wait for those meetings, so we've had to find other ways of doing things”* **I23**.

Participants also noted they had been taking part in organised work socialising, be that through a dedicated social chat or video call social events. Participants noted that organisationally these have been instrumental to checking on colleagues' wellbeing and gave workers a time to share their frustrations with working remotely during the lockdown. However, some also noted there are issues with such events, for example scheduling them

around other commitments such as childcare and that they were often awkward or performative.

Discussion

From these findings, several known issues in WfH can be seen as well as a number of new issues arising from this new way of working. In this section, we will discuss these findings in terms of how they are impacting people working during lockdown and how these issues could be addressed when considering the new future of work. These fall into two main categories: 1) policy changes to support remote workers long-term and 2) new avenues of research into the future of work and how we can support remote/hybrid workers.

Support remote work focus

From our results, we can see that dealing with distractions was a key issue for people working at home. This mirrors previous work that demonstrates the difficulty in transitioning to remote working; it often takes workers time to develop strategies to structure their time and manage interruptions [6]. These issues were seemingly exacerbated for workers both by the fast transition into WfH and external issues related to the pandemic, including crisis response, the need for childcare and inadequate equipment. However, some participants did note the adoption of some strategies to help overcome such issues, such as scheduling tasks and setting expectations.

This calls for further research, both on how we can support the adoption of these focus strategies when workers transition to remote work and how they can be maintained in a hybrid future of work, where expectations may differ for remote and office workers. Public policy may need to rethink the role of parents in schooling during crisis situations to protect their ability to work. This could also involve employment of wellbeing coordinators to lessen the burden of monitoring children's wellbeing – they could help facilitate social contact between pupils and facilitate pupils' motivation.

In addition, we saw that break-taking was an issue for workers and while some were able to address such issues with scheduled breaks and dividing up their work/relaxation space, this may not be possible for all workers. We know from previous work the impact lack of break taking can have on workers' productivity and both physical and mental wellbeing [12]. This is exacerbated for remote workers without the cues for breaks provided by the office environment. While some laws and guidance exist about breaks in the workplace, this may need to be expanded on to create pragmatic break policies for remote workers.

Remote Meetings

We saw that some organisations had begun to adapt to the use of remote meetings, setting a "remote meeting etiquette" to help overcome the barriers remote meetings can create. Therefore, guidance should be developed for organisations in how to effectively manage meetings remotely, which will again be increasingly important as some workers transition back to the office, so as not create an unlevel playing field for workers who are still remote.

Participants also struggled with both delays and disruption to videoconferences because of inadequate Internet connection, and also with the differences between their and their colleagues' broadband. If unaddressed, this could lead to further tension between employees as some feel embarrassed and singled out [15, 28]. This reflects issues that previously teleworkers faced, in which organisations provided support for them to perform their work [14]. Now that personal computers and fast internet connections are increasingly available, policy makers need to consider if these are adequate for remote/hybrids and if not, how organisations can be supported in keeping their workers connected.

Equipment for home working

Likewise, many participants complained about being unable to take their office equipment home and struggling with pain or discomfort as a result. If unaddressed this is likely to place a significant strain on health services, due to an increase in sedentary behaviour and non-ergonomic workspaces. As we know from previous work on remote workers, setting up remote workspaces takes time and support [6]. Public policy may need to support organisations in providing adequate equipment when an employee is required to work from home for example a chair, a monitor and keyboard. In order to accommodate hybrid workers when their time is divided between home and the office it is likely that display screen equipment (DSE) assessments are likely to need to be conducted in both environments and equipment provided by the employer in order to comply with Health and Regulations [31].

Boundaries between work and personal life

Another key issue identified in our studies was the blurring of lines between work and personal life, which led not only to distraction, but also longer hours and overworking, with workers struggling to transition out of work at the end of the day and ultimately to tiredness and decreases in motivation [5, 6]. This reinforces the known problems creating boundaries when WfH [21]. Some participants developed a set of physical boundaries, such as having a dedicated workspace, and digital boundaries, such as the use of dedicated devices for work and personal use [2]. Organisations should seek to support the adoption of such boundaries to help remote workers with work life balance. This could come in the form of guidance on how such strategies can be put into place as well as office policy surrounding device use and availability.

The overwhelming majority missed the experience of the commute and saw it as a valuable boundary that had helped them start and end the day. Nevertheless, very few tried to replicate the experience of a commute, perhaps as this would involve additional motivation and effort (as noted by one participant) in what already was a challenging situation. Future research should identify low-effort ways in which remote workers can start and end their day to provide boundaries.

Support connection for distributed workers

Participants also struggled with the lack of connection they had with their colleagues. This led to many putting in mechanisms to stay in touch and provide both emotional and instructional support during the transition [24]. Such issues will need to be addressed by institutions in the long-term, considering the difficulties surrounding wellbeing and distributed working [7]. In our results we saw these take the form of social chats, virtual coffee breaks, video social events and increased one-to-one meetings, however the onus will be on organisations to ensure the wellbeing of their workers is taken care of. There is scope to investigate how co-workers can find new ways of supporting each other and having informal interaction while working remotely. Some of our participants reported solutions that did not work well for them.

Research needs to be conducted to identify the degree to which workers are keen to shift to WfH after the lockdown. Some participants were looking forward or were open to this possibility while others spoke of anxiety due to not knowing 'when this will end'. Employers will need guidance on the factors that affect people's willingness to work from home.

Conclusion

In this paper, we examine how workers were impacted by lockdown and the transition to remote work. We identify a number of issues that workers faced during this time, as well as some of the strategies they used to overcome them. From this work, we highlight a number

of future policy and research avenues to support remote/hybrid workers going forward into the new future of work including: supporting focus, providing adequate setups for workers, helping workers develop work-life boundaries and helping distributed workers stay connected.

Contribution statement

Rudnicka & Newbold made equal contributions as first authors. Data was collected and analysed by Rudnicka, Newbold and Cook. All authors made contributions to the design of the study and the writing of the manuscript. Cox & Gould both contributed funding. Cox provided oversight and supervision of the project.

Acknowledgements

This work was supported by the EPSRC funded GetAMoveOn Network+ (EP/N027299/1) and the University of Birmingham.

References

- [1] Braun, V. and Clarke, V. 2014. What can “thematic analysis” offer health and wellbeing researchers? *International Journal of Qualitative Studies on Health and Well-being*.
- [2] Cecchinato, M. 2018. *Communicating in a Multi-Role, Multi-Device, Multi-Channel World: How Knowledge Workers Manage Work-Home Boundaries*. UCL.
- [3] Cecchinato, M.E. et al. 2017. Always On(line)? User experience of smartwatches and their role within multi-device ecologies. *Conference on Human Factors in Computing Systems - Proceedings (2017)*.
- [4] Cecchinato, M.E. et al. 2015. Working 9-5? Professional differences in email and boundary management practices. *Conference on Human Factors in Computing Systems - Proceedings (2015)*.
- [5] Ciolfi, L. and Lockley, E. 2018. From Work to Life and Back Again: Examining the Digitally-Mediated Work/Life Practices of a Group of Knowledge Workers. *Computer Supported Cooperative Work: CSCW: An International Journal*. 27, 3–6 (2018). DOI:<https://doi.org/10.1007/s10606-018-9315-3>.
- [6] Cook, D. 2020. The freedom trap: digital nomads and the use of disciplining practices to manage work/leisure boundaries. *Information Technology and Tourism*. (2020). DOI:<https://doi.org/10.1007/s40558-020-00172-4>.
- [7] Cooper, C.D. and Kurland, N.B. 2002. Telecommuting, professional isolation, and employee development in public and private organizations. *Journal of Organizational Behavior*. 23, 4 (Jun. 2002), 511–532. DOI:<https://doi.org/10.1002/job.145>.
- [8] Coronavirus: “Mums do most childcare and chores in lockdown”: 2020. <https://www.bbc.co.uk/news/business-52808930>. Accessed: 2020-06-17.
- [9] Cousins, K. and Robey, D. 2015. Managing work-life boundaries with mobile technologies. *Information Technology & People*. 28, 1 (2015). DOI:<https://doi.org/10.1108/itp-08-2013-0155>.
- [10] COVID-19 Bulletin: Executive Pulse, 3 April 2020: 2020. <https://www.gartner.com/en/documents/3982949/covid-19-bulletin-executive-pulse-3-april-2020>. Accessed: 2020-06-25.
- [11] Covid-19 could cause permanent shift towards home working.: 2020. <https://www.theguardian.com/technology/2020/mar/13/covid-19-could-cause-permanent-shift-towards-home-working>. Accessed: 2020-06-25.

- [12] Epstein, D.A. et al. 2016. Taking 5: Work-Breaks, Productivity, and Opportunities for Personal Informatics for Knowledge Workers. *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems - CHI '16* (New York, New York, USA, 2016), 673–684.
- [13] Fleck, R. et al. 2015. Balancing boundaries: Using multiple devices to manage work-life balance. *Conference on Human Factors in Computing Systems - Proceedings* (2015).
- [14] Gibson, J.W. et al. 2002. Telecommuting in the 21st Century: Benefits, Issues, and a Leadership Model Which Will Work. *Journal of Leadership Studies*. (2002). DOI:<https://doi.org/10.1177/107179190200800407>.
- [15] Golden, T.D. et al. 2008. The Impact of Professional Isolation on Teleworker Job Performance and Turnover Intentions: Does Time Spent Teleworking, Interacting Face-to-Face, or Having Access to Communication-Enhancing Technology Matter? *Journal of Applied Psychology*. (2008). DOI:<https://doi.org/10.1037/a0012722>.
- [16] Gregg, M. 2011. *Work's Intimacy*. Polity Press.
- [17] Halford, S. 2005. Hybrid workspace: Re-spatialisations of work, organisation and management. *New Technology, Work and Employment*. 20, 1 (2005). DOI:<https://doi.org/10.1111/j.1468-005X.2005.00141.x>.
- [18] Jarrahi, M.H. and Sawyer, S. 2017. More than Nomadicity: The Paradoxical Affordances of Liminality. *International Reports on Socio-Informatics (IRSI)*. 14(3), (2017), 29–33.
- [19] Kraut, R.E. 1989. Telecommuting: The Trade-offs of Home Work. *Journal of Communication*. 39, 3 (1989). DOI:<https://doi.org/10.1111/j.1460-2466.1989.tb01038.x>.
- [20] Lascau, L. et al. 2019. Monotasking or multitasking: Designing for crowdworkers' preferences. *Conference on Human Factors in Computing Systems - Proceedings* (May 2019).
- [21] Leshed, G. et al. 2014. "Our life is the farm and farming is our life": Home-work coordination in organic farm families. *Proceedings of the ACM Conference on Computer Supported Cooperative Work, CSCW* (2014).
- [22] Mazmanian, M. et al. 2013. The autonomy paradox: The implications of mobile email devices for knowledge professionals. *Organization Science*. 24, 5 (2013). DOI:<https://doi.org/10.1287/orsc.1120.0806>.
- [23] Mazmanian, M. 2019. Worker/Smartphone Hybrids: The Daily Enactments of Late Capitalism. *Management Communication Quarterly*. 33, 1 (2019). DOI:<https://doi.org/10.1177/0893318918811080>.
- [24] Morelli, S.A. et al. 2015. Emotional and instrumental support provision interact to predict well-being. *Emotion*. (2015). DOI:<https://doi.org/10.1037/emo0000084>.
- [25] Oulasvirta, A. and Sumari, L. 2007. Mobile kits and laptop trays: Managing multiple devices in mobile information work. *Conference on Human Factors in Computing Systems - Proceedings* (2007).
- [26] Perry, M. et al. 2001. Dealing with Mobility: Understanding Access Anytime, Anywhere. *ACM Transactions on Computer-Human Interaction*. 8, 4 (2001). DOI:<https://doi.org/10.1145/504704.504707>.
- [27] Report: Remote work in the age of Covid-19: 2020. <https://slackhq.com/report-remote-work-during-coronavirus>. Accessed: 2020-06-25.
- [28] Schoenenberg, K. et al. 2014. Why are you so slow? - Misattribution of transmission

delay to attributes of the conversation partner at the far-end. *International Journal of Human Computer Studies*. 72, 5 (2014).

DOI:<https://doi.org/10.1016/j.ijhcs.2014.02.004>.

- [29] Stawarz, K. et al. 2013. "I'd Sit at Home and Do Work Emails": How Tablets Affect the Work-Life Balance of Office Workers. *Conference on Human Factors in Computing Systems - Proceedings* (2013).
- [30] Wajcman, J. 2018. Digital technology, work extension and the acceleration society. *German Journal of Human Resource Management*. 32, 3–4 (2018).
DOI:<https://doi.org/10.1177/2397002218775930>.
- [31] Working safely with display screen equipment: 2020.
<https://www.hse.gov.uk/msd/dse/>. Accessed: 2020-06-30.