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The new normals of work: a framework for understanding responses to disruptions created by new futures of work

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1. Introduction

Despite the many technological advances over the past few decades designed to support remote working (also referred to as working from home, teleworking, etc.), prior to 2020 there had not been a large uptake in working away from the office. For example, only 6% of the U.K. workforce worked remotely before the pandemic (Coronavirus and homeworking in the UK: 2019: 2020). Despite the promised advantages for businesses (increased numbers of people in the workforce, reduced costs of office space) and steps taken by governments to encourage it (e.g., U.K. govt mandates the right to request flexible working¹), employers have been reluctant to make working from home widely available (Cook, 2020b).

Following the increase in cases of COVID-19 across several countries, on 11th March 2020 the WHO announced that COVID-19 could be characterized as a pandemic, leading to a large-scale switch to remote working in many countries across the world. In the U.K., this was dubbed 'lockdown' and citizens were asked to self-isolate and work from home. A survey from Slack estimates that over 16 million knowledge workers in the U.S. also transitioned to remote work in the first few weeks following the declaration of the COVID-19 pandemic (Mazmanian, 2019).

Even experienced remote workers have a challenging time maintaining productivity. Productivity relies on workers being able both to focus on tasks at the appropriate time to get work done and to disengage from work at other times to recover from work-related stress and maintain a healthy work-life balance (Cook, 2020b). Prior research (Lascau et al., 2019) reveals the challenges faced by remote workers in maintaining productivity: elevated levels of focus are difficult to achieve when surrounded by the physical and digital distractions that are common outside the workplace. Fitting work around caring responsibilities requires high levels of self-organization (Cook, 2020b). Disengaging from work is also difficult when physical locations and personal technologies serve both work and non-work needs (Stawarz et al., 2013). Cook showed that neophyte remote workers overlook the role of self-regulation strategies, not foreseeing how working in non-traditional work-spaces might make balancing work and non-work difficult (Cook, 2020a). During the pandemic the transition to remote work required people to adapt to a new situation and adopt new strategies to be productive.

The mandatory and rapid nature of the switch to remote working had the potential to make it difficult for workers to maintain both a healthy work-life balance and effective coping strategies for work-related stress. In addition, it is likely to have been difficult for workers to adapt to the

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¹<https://www.gov.uk/flexible-working#:~:text=All%20employees%20have%20the%20legal,26%20weeks%20to%20be%20eligible>

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challenges of remote working due to a lack of preparation and the number of issues surrounding working during a pandemic. Consequently, there is a need to identify how the new remote workforce changed their working practices and adopted new strategies for work. This will allow us to better understand how workers develop strategies to manage changes to their work practices in a way that meets their personal needs, constraints, and preferences (Metin et al., 2016; Mazmanian, 2013). Moreover, this will help us to understand the contextual factors that lead to the adoption or reluctance to adopt technologies.

The unprecedented number of new remote workers is likely to have a significant impact on the future of work, with many wondering if workers will continue to work remotely long-term, or if not whether they will adopt a more hybrid working style, i.e., part-time remote (Cook, 2020b; Dan Asher, 2020). This may lead us toward a new normal of work as people adapt to work in the crisis and look to the future (Bloom, 2020; Rogers, 2020). However, with the rapid move into remote work, it is unclear how people constructed their new working practices, what issues they faced and overcame, and what challenges remain. As people transition again into hybrid work or look to work remotely long term, it is important to see what we can learn from people's technology use during this crisis. By examining the way people adapted to remote work during the pandemic and both the novel and mundane strategies they used, we can better prepare for future changes to the way we work. Also, by looking at a snapshot of a particular time, we can better understand how novel adaptations become everyday practices and how this contextualizes technology use.

In this paper, we present the results of a questionnaire and a follow-up interview study which explores the new challenges that neophyte remote workers faced during lockdown as well as the new strategies they adopted. We present a snapshot of how people transitioned to remote work after initial government restrictions (between April 20th and May 28th 2020), highlighting both the challenges faced and the solutions or workarounds created. Our findings bring to light what many of us experienced during this time and, more importantly, distil the variety of strategies employed to adapt to new ways of working and emphasize how we should better support workers in their unique and idiosyncratic ways of making work 'work.' To do so, we rely on Genuis and Bronstein's model for seeking normal in health conditions and apply it instead to working practices. This allows us to systematically unpack how people addressed the issues faced whilst working during lockdown and their switch to remote work and highlight the temporary nature of normalcy. In drawing implications from our work, we point to how future research, policymakers and workplaces should account for these temporary new normals and the likelihood of more hybrid ways of working in future by considering how the technological infrastructure of work needs to be better supported, designed, and researched.

2. Background

2.1. Remote work

Researchers have long investigated teleworking and flexible working practices, especially in relation to how workers manage transitions and disruptions between work and personal life. 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 some regularity; and *supplementers*, those who work additional hours, usually unpaid, and often outside of traditional working hours such as during evenings and weekends (Kraut, 1989). Arguably, this last category has now become a sub-group of *substitutors*, given the ability to work 'anywhere, anytime' (Perry, 2001). 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 working from home (WfH) more regularly might not have dedicated, undisturbed spaces at home from which to work (Lascau et al., 2019).

The home office is one strategy used to create a physical work-home boundary for those who WfH. Work-home boundaries can be a mechanism to define different life realms and can even help manage stress (Cecchinato, 2018), but they need to be constantly sculpted (Ciolfi & Lockley, 2018; Cook, 2020a) around individual preferences and professional differences (Cecchinato et al., 2015). Cecchinato et al. demonstrated that work-home boundaries can be physical, temporal, social or digital (Cecchinato et al., 2017). Moreover, they can be difficult to establish and maintain in the context of WfH (Leshed et al., 2014). Prior work shows that there is an increased (perceived) pressure to demonstrate productivity when WfH, leading to work becoming task-based, rather than time-based (Halford, 2005). 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 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 (Gregg, 2011).

Integrations of work and non-work have led scholars to identify an ‘autonomy paradox’ (Mazmanian, 2013) in which the flexibility that technology offers – which initially promises workers control over their work – results in additional demands through encouraging constant availability. Arguments are intensifying that due to both the increasing adoption of remote working and the autonomy paradox, additional efforts (known as boundary management practices) are required to separate work and home life if one is to maintain a work/life balance (Cook, 2020a; Cousins & Robey, 2015; Mazmanian, 2013; Wajcman, 2018; Mazmanian, 2019). 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 WfH, 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 (Jarrahi & Sawyer, 2017). 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 (Oulasvirta & Sumari, 2007). More recently, Cecchinato et al. and Fleck et al. found that devices can be intentionally kept separated as a way of managing work-home boundaries (Cecchinato et al., 2017; Fleck et al., 2015). However, there is still an amount of invisible meta-work necessary to set up devices and technology according to one’s preferences (Whiting & Symon, 2020). Not everyone will be permitted to adjust the settings on their devices; others may not have the confidence or knowledge to personalize their setup. 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.

2.2. Remote work during COVID-19

Remote work gives workers and companies more geographical flexibility (Felstead, 2012) and allows people to participate in labor markets that they would otherwise be excluded from (Zyskowski et al., 2015). It has therefore been asked if this change to remote working will be a ‘new normal’ (Rogers, 2020). It certainly seems that work may experience long term changes. As a result of COVID-19, the year 2020 is set to signal an overall shift in the way people work, with initial research suggesting a substantial number of people will wish to continue to work remotely in the long term, at least partially (Bloom, 2020). Even in the difficult circumstances of the COVID-19 pandemic, many workers have fully embraced remote work and are resisting the idea of returning to the office post-pandemic (Apple employees push back against returning to the office in internal letter, 2021; Makortoff, Makortoff,). Better support for moving to remote work might encourage more workers to attempt it and more employers to permit it.

We know from previous studies that remote working strategies and the management of work-life boundaries alter and adapt over time. Poor work-life boundary management causes some remote workers to abandon remote working entirely or else engage in increasingly elaborate productivity and time management practices (Cook, 2020a). However, the development and adaptations of these strategies take time (often months and years) to emerge. The rapid, unexpected move to remote work due to lockdown meant that workers did not have this transition period, leaving them to discover the best practices for themselves whilst trying to remain productive. Moreover, this transition to remote work may exacerbate existing problems with workers' sense of productivity, as well as their wellbeing and break taking habits at work (Guillou et al., 2020; Kaur et al., 2020; Kim et al., 2019), in addition to concerns surrounding feelings of isolation (Koehne et al., 2012). Initial evidence has been reported detailing how lockdown has amplified stereotypical gender roles around the household (Coronavirus, 2020). 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. This echoes the issues seen in precarious work, where the weight of responsibility in addressing such issues is on the workers and in turn, can lead to issues within the workforce and for individuals (Millar, 2017; Neilson & Rossiter, 2008).

Our research builds on this prior work and explores a world where most knowledge workers are WfH. While it does look like the landscape of remote work will be changed by the impact of COVID-19, the long-term impacts on individuals and organizations are yet to be seen. Workers have already had to adapt their practices and create a, possibly temporary, new normal. From this, we can learn the practices that people have established during this time, including the extent to which they were willing or resistant to the use of technology to facilitate remote work, and highlight areas in which workers still need support.

In the new future of work, it may be that there will be an increase in hybrid remote work, and workers and employers will need support transitioning from the past normals of the traditional office environment to the new normal WfH environment, which is continually changing. Understanding how workers have had to quickly adapt to the new normal of work and the issues they face with both remote work itself and the use of technology that facilitates it will help in supporting remote and hybrid workers in this new future of work.

3. Understanding issues and strategies for remote work during the covid-19 pandemic

To better understand the transition to remote work during the pandemic, we sought to collect people's experiences and practices of suddenly working remotely. Our data collection comprised of a two-stage qualitative study:

- (1) a survey (n = 349) through which participants reported issues they were having while working remotely
- (2) a set of 25 semi-structured follow-up interviews to get more detailed responses on how workers were addressing the issues they had encountered during the transition

As part of this research, we also developed a platform, "<https://www.eworklife.co.uk/>", which provided resources and evidence-based recommendations for managing work-life balance. As shown in Figure 1, our data collection took place in the earlier stages of the lockdown in the U.K., providing a snapshot of how workers reacted to their initial transition to remote work. In our discussions, we reflect on how these results relate to the currently ever-changing landscape of work.

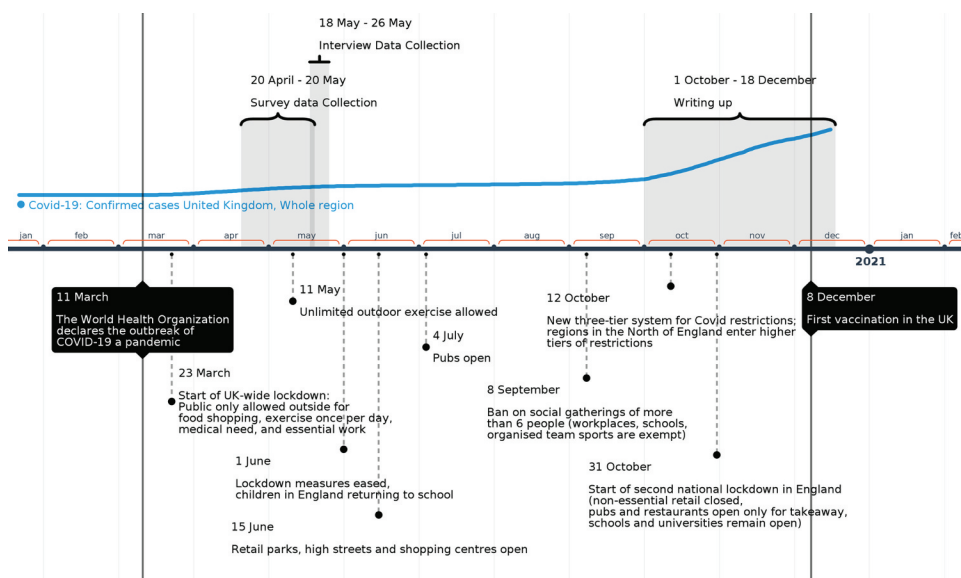


Figure 1. Context of our data collection with regards to key events in the pandemic in the U.K.

3.1. Participants

We analyzed data of the first 349 respondents who completed the full survey (From 20th of April to 20th of May 2020). Two respondents who did not work remotely were removed from the analysis, resulting in a sample of 347 respondents. Survey respondents did not receive monetary remuneration; however, they received recommendations to support remote working.

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 per week WfH before lockdown. We scheduled the 25 interviews on a ‘first come, first served’ basis and they happened between the 18th of May and the 27th of May 2020.

3.2. Materials

Our platform, “<https://www.eworklife.co.uk/>”, provided advice on digital self-control, productivity and work-life balance. It was populated with links to the online survey – people were encouraged to follow the link to take part in a research project and receive guidance on which strategies were best suited for them. We hoped to both provide support for people who were struggling with the transition to remote work and at the same time better understand the new barriers they were facing. Participants, therefore, may have gained some knowledge of strategies from the use of the platform while completing the survey, and those in the interviews had been sent relevant strategies to help them adapt. However, in our study, we are less interested in how participants find these strategies but how they adopt (or do not adopt) them into their work.

The online survey included open-ended questions, a demographics section and several scales related to working style. We used the following scales to provide respondents with tailored recommendations for self-regulation strategies once they completed the survey: the procrastination at work scale (Metin et al., 2016), the work-life indicator (Kossek et al., 2012), the perceived stress scale (Cohen et al., 1983) and the burnout and work engagement scale (Demerouti et al., 2010). As this paper focuses only on the issues experienced by participants when transitioning to remote work, we do not report on the findings of these scales, as they fall outside the scope of this paper. The open-

ended questions asked participants to reflect on the issues they faced while working remotely and the strategies they used to address them. In this paper, we report on these open-ended questions.

Interviews were conducted via video call using a semi-structured approach. Questions were designed to facilitate understanding of the challenges and strategies related to WfH during lockdown. They focused firstly on details about their work responsibilities, their work-life pre-lockdown, their initial transition to lockdown and their current experiences. From there, questions branched out to cover the different solutions or tools they had used, how they adopted them and what the workplace might look like post-pandemic.

3.3. Procedure

We advertised our platform and the survey through dedicated social media accounts (Twitter and Reddit), workplace newsletters and word of mouth, where both direct links to the survey and the platform were used. Participation was open to individuals over the age of 18. Dissemination on Twitter was amplified through paid advertisements.

Participants accessed our survey through the Qualtrics survey platform. Following consent, participants answered the survey questions. The survey ended with a message providing personalized 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, each participant received a debriefing message and a gift voucher via e-mail.

4. Results

Here we present the results from both the survey sample and interviews together to give a detailed picture of people's experiences. We adopted a thematic analysis approach to data analysis (Braun & Clarke, 2014): 1) familiarization with data, 2) assignment of preliminary codes, 3) identification of themes, 4) review of themes, 5) definition and naming of themes. Survey data and interview data were coded and initial identification of themes was completed separately by two researchers (first and second authors). Results were then collated and submitted for further review, identification and naming of themes; this stage was done collaboratively between the two researchers. Illustrative quotes were taken from both sets of data to help give an overview of both datasets.

4.1. 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 participant preferred to self-describe as "transgender (M2F)" (7 undisclosed). Participants reported being educated to $n = 3$ GCSE (equivalent to a High School Graduation Diploma in the US), 14 A-level (equivalent to Advanced Placement examinations in the US), 100 undergraduate, 138 postgraduate, 92 doctoral level.

Our participants reported being: 239 in full-time employment, 52 at university, 38 in part-time employment, 11 self-employed, 5 unemployed and seeking work, and 1 Retired. When asked which sector they worked in, participants responded with 169 Education, 36 Health & Social Work, 27 Manufacturing, 22 Information & Communications, 8 Arts & Other Services, 7 Financial Services, 4 Business Services, 4 Public admin, 1 Primary Sector & Utilities 1 Transport & Storage. A further 60 reported "My sector is not represented here," 23 of which identified as some kind of student or postgraduate researcher. A further breakdown of the reported roles can be found in the supplementary materials. However, for the purposes of this analysis, it should be noted that the majority of the participants would be considered "knowledge workers" whose primary work activities take place on a computer, moreover the majority of which work in some kind of team, though some may consider themselves solo workers.

Interviewees ranged from 24 to 68 years old ($m = 45$, $SD = 12$) and included 20 females, 4 males and 1 participant preferred to self-describe as “transgender (M2F)” participant, educated to 5 undergraduate, 12 postgraduate, 8 doctoral level. Five interviewees lived alone, four lived with children under 18 years old.

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. However, we also note that there is an overall gender imbalance within our study, which may be related to the increased load women experienced during the pandemic (Brussevich, 2020), so were more likely to seek out our platform for support. It has been hypothesized that women may be more likely to participate in research studies that requires the disclosure of personal information (Rudnicka, 2020), as was the case in our study.

4.2. Experiencing Challenges transitioning to working from home during a pandemic

For our participants, the transition to remote work came abruptly at the start of lockdown leading to a breakdown of their previous ways of working, which almost exclusively consisted of commuting into a physical office with the occasional day working from home. The issues participants faced transitioning from their old ways of working alongside the global impact of the pandemic led to this breakdown of their normal ways of working. This highlights the variety of challenges that workers experienced in their workspace, their ability to get work done and stay connected at work. We address these three issues in more detail below.

4.2.1. Workspace setup

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

Participants found it challenging to find an appropriate space to work, whether due to lack of space or due to sharing space with other members of the household. One particular difficulty was 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 an 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 backache very frequently”* S318.

Insufficient Internet bandwidth created tension during videoconferences, especially if one team member experienced more issues than others did. Lack of printers 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 P.C. This makes a lot of work delayed”* S244.

The shift of all activities into one space made many participants realize 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 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

Many participants reported working longer hours and had an ambivalent relationship with technologies that allowed them to stay connected at all times. Some worked longer 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 e-mails: *“I feel like I should be ‘on’ all day and answering work chats and email right away”* S341, making participants nervous about the access that connectedness had on their ability to end their workday.

4.2.2. *Getting work done*

Being at home for work meant that people had to deal with additional new distractions. This included noise from neighbors and interruptions from delivery drivers. 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 to 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

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.

4.2.3. *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 realized that the 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 coworkers 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 removing valuable social interaction with colleagues. Some participants felt lonely, sharing *“I miss the interaction with my colleagues”* S297. Others highlighted the difficulties of socializing with coworkers over the Internet, *“Having an informal chat now takes a lot of organising!”* S304. Another participant reported difficulties with keeping in touch with coworkers: *“Tried having an always-on call with people working, but this creates pressure to talk, which is ultimately more distracting”* S229.

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 they needed to put additional effort into learning the tools that would allow them to work remotely: *“preparation for online teaching and use of new online teaching technology has meant extra work hours”* S151. Insufficient Internet bandwidth could create tension between colleagues, especially if one team member experienced more issues than others did, there was a risk of *“a certain lack of empathy from colleagues when hearing of individual technical problems and saying “Everyone has I.T. problems. You just have to sort it out if you have an I.T. problem.”* S36. This,

paired with an increase in meetings that workers reported in the initial weeks of lockdown, 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.

4.3. Adapting to remote work

With these challenges identified, workers took a number of actions to address them. Some drew on prior experience working remotely part-time and also acted as information sources for others in their institution. In other cases, they learnt from experimentation over time, and others sought out advice on ways to manage their work remotely, for example, by engaging with our platform [“https://www.eworklife.co.uk/”](https://www.eworklife.co.uk/) and other media articles.

Below we highlight a number of the strategies that workers reported using to address the challenges they faced and how they adopted them into their work.

4.3.1. Creating a home/work setup

To overcome issues surrounding their workplace setup, 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 in 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.

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 or better internet access.

Moreover, these solutions were not available to everyone due to a 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 M.S. Teams and that not logging out might signal availability to their coworkers. Many participants, however, struggled with overworking and did not implement digital boundaries (Bloom, 2020).

Several participants had separate work and personal accounts, for example, for social media, calendars, and e-mail. Many checked work e-mails 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 the 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 that they started 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.

4.3.2. Self-scheduling and new tools

In an attempt to get work done, participants separated themselves from distractions by setting digital and environmental 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 work time around family and caring responsibilities. Some parents shifted their working day and worked with their partner to organize time collectively around childcare and meetings.

Adopting this type of 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.*

When trying to focus on work, workers trialed strategies such as using small chunks of time to accomplish work tasks and breaking work into small manageable tasks (microtasks) where possible (Hahn et al., 2019). For some, using tools such as to-do lists and calendar applications to help them prioritize and schedule tasks 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.*

Setting new expectations at work helped 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.*

4.3.3. Work socialization and meeting remotely

The issues surrounding staying connected with colleagues involved both work-based meetings and social connections which now had to be more deliberately addressed and 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 coworkers 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 more video conferencing meetings, participants noted their organizations had started using 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 organized work socializing, be that through a dedicated social chat or video call social events. Participants noted that organizationally 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.

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 organization 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 a 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

In Table 1 we provide an overview of the issues identified, how they were addressed and the use of technology.

4.4. Ongoing issues with remote work

A key takeaway, across our dataset, was the 'ongoingness' of the crisis and how that impacted the way in which people adopted strategies and the issues they faced. For some, this felt like any semblance of normality they had managed to find during the pandemic, may be temporary. Looking forward, people were left wondering how they may have to change their ways of working again as they move forward, either returning to work or moving to a hybrid model. This in conjunction with the changing nature of the pandemic and government guidance created a feeling of ongoing uncertainty.

"And might be expected to go back to work which is kind of scary because it's thinking about you know, things are, degree, there's a degree of stability at the moment that feels quite good. And I know that that could ... that's definitely a temporary thing, I'm not thinking enough about, what's coming." I20

In addition, while people were able to address some issues surrounding their work, other issues remained. For instance, when it came to issues such as childcare or the space in which people did their work, participants were unable to address them directly and were instead waiting for their circumstances to change, for example, children returning to school or returning to their traditional workspace.

Moreover, next to the initial problems arising from the transition to WfH, new issues were arising throughout the lockdown, that participants had to address. An example of this was "Zoom Fatigue" as mentioned above, where people began to adapt by having fewer meetings and employing specific digital meeting etiquette strategies. Other emerging issues could not be addressed. For example, aspects of work that took place in the workplace itself, such as equipment/archive management, that had been put off at the start of lockdown were becoming more pressing.

Furthermore, some workers were also anticipating future issues that would need addressing, such as preparing for hybrid and distributed working and socially distanced workspaces. Many had begun

Table 1. Outline of issues addressed by workers and strategies implemented while working remotely.

Aspect of work	Pre-Lockdown Way of Working	Issues Experienced Post lockdown	Strategies implemented	Tools Used
The work	environment	Work conducted primarily in dedicated employer-provided office space	Losing a dedicated space to work and sharing workspace with others	Creating a dedicated workspace or physical boundaries between home and work.
Shared	household calendar to help manage working space in the home.			
	Having a commute to/from work	Losing a physical boundary between home and work	Recreating the transition between work and home. Setting expectations at work and home as to when they can be interrupted	Exercise bike or activity tracking for post-work walks Booking “personal time” as unavailable in work calendars or change e-mail signatures to include work times.
	Having an employer-provided workstation set-up e.g., Monitor/s, keyboard, mouse, chair and desk.	Losing access to standard office equipment	Recreating workplace set-up (not possible for all).	Additional monitors and equipment from employer (only available to some workers)
Getting work done	Being able to focus in the office	Distractions at home and lack of focus	Scheduling time and dedicated spaces for focused work	Personal task management tools (for example, to-do list apps) to support splitting work tasks into smaller chunks Scheduling tools to schedule focus time.
	Children at school or in childcare during the workday	Need to provide childcare	Using flexible working times to allow for sharing childcare responsibility with partner (Not always possible)	Having a shared calendar or blocking time that they are unavailable for meetings
Staying	Connected	Adhoc conversations at work	No longer seeing colleagues in a shared environment	Planning office chats or having ongoing text chats to drop messages in
Setting up	asynchronous text channels to stay in touch with coworkers and share ideas or using more advanced project management tools such as Monday.com			
	Group Meetings	Remote meetings more difficult	Reduction in meeting frequency and time.	Adding more structure rules around meeting etiquette (mic muted/use of chat feature)
	Wellbeing monitoring	Managers unable to have regular face-to-face meetings with employees	More frequent stand-up meetings, formal and informal video catchups	Schedule teams or zoom calls with individuals and teams

to develop strategies to address these, for instance, how to conduct hybrid meetings, while some people are remote, and some are in the office, by having the office-based participants join digital meetings separately.

“Because the security of the knowledge and being able to plan is more important than the possibility of returning to normal, because normal, we’re never getting normal back anyway so we have to plan for the worst-case scenario, then we have to look at but what are the opportunities here? Because a lot of the things around our jobs, you know, remote working digitally, particularly online learning, this opens up lots of opportunities as well.” I11.

5. Discussion

Our findings show that in addition to experiencing several known issues in adapting to WfH, our participants also experienced a number of new issues that arose from this new way of working during the pandemic lockdown. In this section, we will discuss these findings in terms of how they impact people working and how these issues could be addressed when considering the role of technology in the new future of work. We present these findings in two stages: 1) how people's experience of working during lockdown relates to models of how people find a "new normal" and 2) areas that need to be addressed for a new and continually changing future of work to be successful. By understanding how people adapted to the issues experienced in this period, we can speculate on how technology can better support the new future of work, where hybrid work may become more common in a post-vaccine world.

5.1. The new "normals" of work framework

The idea of moving toward a newly found normality in a time of crisis has previously been explored in the context of people adapting to health conditions or seeking fertility support (Demerouti et al., 2010; Makortoff, Makortoff.). Genuis and Bronstein present a model through which people make sense of this new normal (Demerouti et al., 2010), transitioning from their no-illness normal (i.e. before they had to adapt to this new health condition) to the breakdown of this normality and the gaps between the old and the new. This leads to a sensemaking and information-seeking journey that the individual uses to construct their new sense of normality, helping them come to terms with the change. Patel et al., demonstrate how this new normal model may be applied to other life transitions, looking at how men establish normality while seeking fertility support (Makortoff, Makortoff.). This work shows how understanding people's journeys as they transition from a breakdown of their normal way of living to address these gaps can be used to highlight the areas in which they may need ongoing support. Massimi et al. examine the role that technology plays in processing such life disruptions; they highlight the benefit of socio-technical designs in helping people find support during such disruptions (Kraut, 1989).

These studies, which explore how people establish normality in times of crisis, provide a useful lens to understand people's transitions to remote work during lockdown. This can help us explore opportunities to support workers in the future; there is no precedent for this kind of rapid crisis-induced change in the context of work. More recently, Anicich et al. *have* discussed the recovery of people after the stressors of the global pandemic and getting back to some new normal (Anicich et al., 2020). They collected survey data from workers' feelings of powerlessness, authenticity and stress across a two-week period. They demonstrate how employees reclaimed their autonomy during the first stage of the pandemic (between March 16–27, 2020), with decreases in powerlessness and increases in authenticity. In the following sections, we adapt Genuis and Bronstein's sensemaking and information-seeking model for seeking normal to help us understand how our participants addressed the issues they faced working during lockdown. Considering our participants' journey through the lens of Genuis and Bronstein's model of looking for normal will allow us to see how people addressed the issues they faced working during lockdown. This also allows us to examine the temporary nature of the normalcy that people have built as they prepare for further changes to the way we work and the role technology plays in the fast-approaching new future of work.

Our findings illustrate the journey that workers took in establishing a new normal while working during lockdown. This highlights a need to understand the different strategies and the different journeys workers go through to overcome the barriers they faced WfH. In our findings, we did not see a single unified mentality for adopting these strategies; in fact, arriving (or not) at a "new normal" for work looked different for different people. Understanding these different journeys can help us better understand how to support these workers and highlight the remaining issues workers face.

From our participants, we see three distinct kinds of mentalities when addressing the impact of lockdown on work: 1) waiting for the return of the old normal, 2) developing a new normal of working from home and 3) anticipating a new future of work. While these groupings highlight different kinds of behavior, it should be noted that an individual may expect a combination of any number of these in response to the rapid shift to remote work examined in this paper. For example, someone may adopt a new strategy in scheduling their work and personal time while leaving their workspace as is, waiting for a return to the office.

5.1.1. *Waiting for the return of the old normal*

The instance of the new normal of work model in Figure 2 shows a departure from the original seeking normal model. In this instance, we can see where workers did not find a new normal and instead awaited the return to old ways of working. This was largely due to external factors that caused too much uncertainty or meant workers could not address these gaps directly. With the changing guidance coming both from employers and governments, many workers felt they were in a limbo-like state and would be better off waiting for external change. Take childcare as an example; for parents, childcare was an unnegotiable need. Parents needed to prioritize childcare over government restrictions and workplace obligations. As a result, many working parents needed schools to reopen before addressing issues in their work patterns. This often caused them to use technology reactively, simply striving to cope with the current circumstance. They were not given sufficient support, training, or encouragement to explore the ways in which technology could help them plan and execute remote and/or asynchronous work. If new technologies were not widely adopted or used reactively, some participants expanded how they used existing tools. The move of schooling online also further complicated the use of technology to get used to the new normal of work. It added additional and sometimes conflicting communication streams, for example, when teachers messaged parents during their workdays and asked for help in monitoring children's work. This breakdown in information seeking comes not from the breakdown of people's normal ways of working but instead comes from a lack of resources, time, or ability to influence external events. For example, the physical constraints of their environment, such as limited space or other people in the household, made it difficult for people to have a dedicated physical working space. Even if portable computing

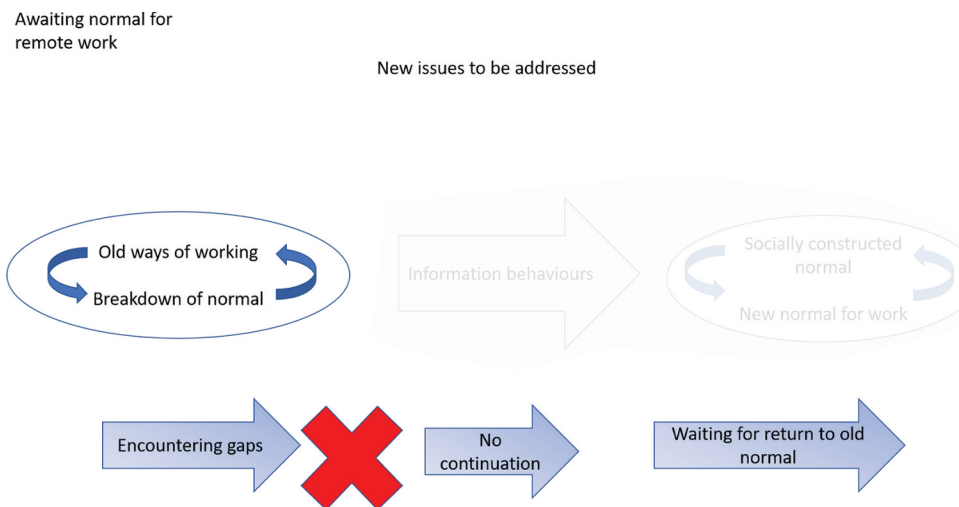


Figure 2. An Instance of the new normal of work model adapted from genuis and bronstein's model of those awaiting a return to normal for work during the pandemic. In this instance, people have encountered gaps working from home, but due to the uncertainty around how long they will have to WfH have opted to "wait it out." They do not seek new strategies for addressing these gaps and simply await their old normal to return.

meant that aspects of their virtual working space (e.g., e-mail, project management tools) carried over into remote work, the physical aspects were still missing. Moreover, we saw instances of depleted surge capacity among our participants, where they lacked the mental energy to overcome a specific gap, and it was easier for them to wait for external changes. This overwhelming environment could sometimes prompt participants to use, cope, and signal productivity, rather than proactively plan and manage their workflow.

This awaiting normal behavior indicates the impact that uncertainty had on people working from home during the pandemic. However, it is unclear how sustainable this behavior is with the risk of further periods of lockdown and the potential continuation of remote work into the future. When the breakdown of normal is seen as a temporary barrier, and there is a rejection of a new normal, workers are unable to bridge these gaps and therefore unable to work effectively nor maximize the potential that technology has for bridging gaps between the old and the new ways of working.

5.1.2. *Developing a new normal of working from home*

The instance of the new normal of work model, seen in Figure 3 Figure 4, is most directly linked to Genuis and Bronstein's model for seeking normal. From this instance, we see that people were able to identify and adopt new strategies when encountering gaps due to the breakdown of people's normal ways of working. The mechanisms for finding such strategies were largely through peer support or through resources online such as those we provided access to on our platform. In certain circumstances, people worked collaboratively to find technology-mediated alternatives to old ways of working, for example, creating asynchronous chats to help support more ad hoc communication and social support. Similarly, those with more experience in remote working reported acting as informal mentors for their colleagues, both in the setup of remote work tools (such as Teams or Zoom) as well as the sharing of wellbeing strategies such as having a dedicated working setup to support ergonomic comfort. Additionally, workers used online resources, such as articles on remote work practices and tools (such as the <https://www.eworklife.co.uk/> platform), to identify strategies to support work-life balance before going on to share those with others.

While there was a cyclical nature to identifying new gaps, as seen in Genuis and Bronstein's model, some workers were able to create a new sense of normal working using these strategies. We also saw some specific instances of the role of technology in how the gaps were bridged. Much of the

Seeking a new normal for
remote work

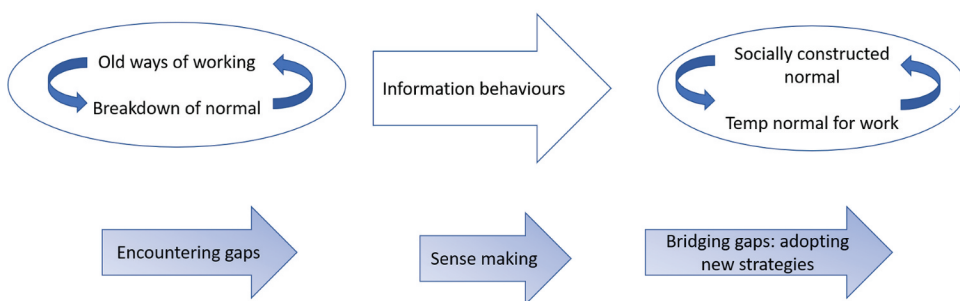


Figure 3. An Instance of the new normal of work model adapted from genuis and bronstein's model of those seeking normal for work during the pandemic. going from the breakdown of normal in the old ways of working through to constructing a temporary new normal for work. this takes people through encountering gaps in their normal practices, into information seeking and a sensemaking of how to address these gaps and finally into establishing a new normal.

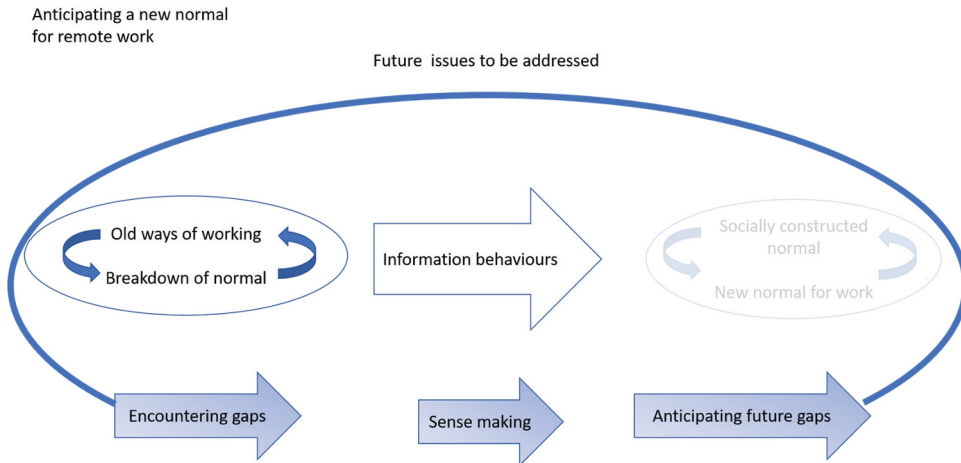


Figure 4. An Instance of the new normal of work model adapted from genius and bronstein's model of those anticipating a normal for work *after* the pandemic. In this case, people may have identified and addressed gaps stemming from the breakdown of their old ways of working. Rather than adapting these and settling into a normal, they anticipate future disruptions in working and build toward that future normal.

'direct' remote work tools, i.e. remote meetings and document collaboration software, were constrained by the choices of external partners or employers, requiring workers to become proficient in a number of tools to be able to perform their duties. However, workers reported more experimentation when it came to personal information technologies designed for use by individuals, such as self-scheduling or boundary-management software, such as notification blockers. This came both in trying out completely new technology based on external suggestions and taking up previously used strategies that had fallen by the wayside, for example, an old to-do list application that a worker has used previously.

Instances of seeking normal behaviors could be seen as the most successful, with workers establishing a new normal in their ways of working. Some of the key factors surrounding people's ability to achieve this was support from others, resources from employers and access to knowledge. The most common way of overcoming the breakdown of normal ways of working was support from others such as coworkers and employers in allowing time for people to adapt during the initial transition. This support came both in proactive strategies, focused on identifying new ways of working and facilitating workers' wellbeing while working remotely, as well as by managing people's workload to allow time for transition.

Access to knowledge about remote work tools and strategies was key to people's success. This could take the form of learning from popular articles about remote working, enabling people to identify the specific issues they were facing and the appropriate strategies, allowing for the adoption of a new strategy to overcome them.

5.1.3. *Anticipating a new future of work*

Finally, Figure 4 shows instances of anticipating yet another new future of work. Similar to the awaiting normal instance in Figure 2, we see how external factors motivate alternate action. In this instance, rather than settling into a new normal of work, workers instead start cultivating strategies that will help them deal with the anticipated changes to their ways of working. Although this may be seen alongside instances of finding normal, this distinguishes itself from the cyclical finding of new gaps in Figure 2. Workers do not wait to find this temporary normal but look to the future when developing their new normal. This anticipated future of work, both within lockdown and after, sees workers building strategies or preparing for more changes.

For example, worker strategies for managing their teams were sometimes developed not only for the current circumstance but also with considerations for how they could stay connected going forward. At the initial time of writing (December 2020), there was much hope for a successful vaccine to be rolled out in 2021, which would facilitate a return to the office. As of June 2021, vaccine rollout has been vital in some countries and less so in others. In countries like the U.K., where the vaccine rollout has been relatively rapid, there has still not been a return to regular pre-pandemic office-based work.

Commentators on workplace culture such as Bruce Daisley have described three potential new futures (eat sleep work repeat, [Bruce](#)); a return to the old normal, a continuation of the new normal with some minor changes, and a new hybrid model. A return to the old normal of a workforce primarily located in a physical office seems likely to be challenged by the widespread media reports that up to 75% of U.K. workers anticipate continuing to want to work from home for at least a couple of days a week (Bloom, [2020](#); Office Workers Want to Keep Working at Home, [2020](#); Three quarters of workers don't want to go back to the office full-time ([2020](#))). Organizations may therefore be more likely to attempt a slight change to the current model and, whilst allowing their workers to WfH most of the time, will bring teams together to a physical location on an occasional basis (perhaps quarterly) for team building. One important feature of this model is that all staff will either be WfH or will be together and will, therefore, to some extent, rotate between the old normal and the new normal. The third option is a hybrid model that involves the workforce being split in two with either some working remotely long term and others being colocated in an office, or having an ordered pattern of rotating between WfH and working in the office, with some individuals perhaps being in the office Tuesday through Thursday, and others on Monday and Friday. Participants in our sample saw this hybrid way of working present new challenges for them as they pivot to a new future of work in which some colleagues are remote and some colocated. Although a variety of hybrid strategies were mentioned by our participants in April and May 2020 – ideas about how these hybrid strategies would work in practice were limited to initial thoughts. The practical challenges of managing and synchronizing colocated and remote work were still developing or framed as future challenges.

In our study, workers were already anticipating how the pandemic might impact a new future of work, particularly around how people will use the office, stay connected with managers, and manage hybrid meetings. Strategies such as online-only meetings and regular well-being check-ins were designed to promote equality among workers who remained WfH long-term (even though all workers were at the time remote). Other workers highlighted aspects of their new ways of working that were designed to withstand any potential future changes to their ways of working. For example, scheduling breaks during the day that fit within people's existing workday or setting expectations for when one would be contactable to safeguard personal time. These strategies were developed to limit the further disruption to their work as guidance and working practices shifted again.

Anticipatory behaviors demonstrate an understanding that the impact of the pandemic on the way we work, and the way we use technology to facilitate our work, is likely to shift and change over time. This again highlights how the shift to remote work led to a feeling of precariousness for workers, who could not fully settle into a new normal as they felt that the situation would not be long lasting. The power to control their working practices was not entirely in their hands (Millar, [2017](#); Neilson & Rossiter, [2008](#)). However, it is necessary that such an understanding is brought forward into the way we design workplace technologies and policy. It can both overcome the real immediate barriers created by the pandemic while also anticipating and allowing for future changes.

5.2. Understanding the near future through the lens of the new normals of work

In this work, we identify a number of issues remote workers faced during the pandemic and the strategies workers were able to adopt to overcome them. In addition, we identify three kinds of behavior around how people acted in response to this disruption of the normal ways of working.

While we saw instances where people were able to find a temporary normal, the external disruptions of the ongoing pandemic may have a continued impact as uncertainty lingers about what the future of work will be and when it will come. This leads to workers either having to wait for this uncertainty to lift, anticipate their own future needs, or oscillating between these different ways of thinking.

These discrepancies highlight a need for both overarching support for workers adjusting to remote work and technological considerations that could help reduce the uncertainty these workers are experiencing. Our findings demonstrate how organizational support in transitioning to remote work – in the form of support in adopting new strategies, managing worker wellbeing and making reasonable accommodations – is of key importance to workers. Employers and policymakers must demonstrate a clear understanding of workers' needs to enable a successful transition to hybrid work. This understanding can then guide how to manage these challenges in a way that does not leave workers unwilling to invest time in learning to use new technologies and protocols because they anticipate imminent change.

The main need identified through the instances of the new normal of work model is the need for socio-technical support when adapting to a new normal. While there were many different kinds of technology that people adopted and experimented with across the pandemic, whether a worker would adopt such technology was most heavily influenced by contextual factors surrounding the uncertainty of the future and the social factors related to identifying novel solutions. As we enter a new period of change to the way people work, it is important to reflect on how we can understand and design for these changes.

5.2.1. *Waiting for return to old normal from hybrid work*

As we can see in Table 1, technology was able to help overcome certain issues when WfH. However, it is also important to explore how technologies can help people bridge new gaps which occur due to continued remote working or future changes to the way they work. While many of these issues have been noted in prior research, how they manifested collectively across the pandemic creates a need for further work. However, as we transition into the near future, there will still be aspects of work people are reluctant or unable to adapt to, will attempt to wait out this change. To better support these workers, we will need to identify these barriers to change and provide support for changing their working habits through alternative devices.

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 significantly strain health services due to an increase in sedentary behavior and non-ergonomic workspaces. As we know from previous work on remote workers, setting up remote workspaces takes time and support (Cecchinato et al.,). Public policy may need to support organizations in providing adequate physical equipment when an employee is required to work from home, such as a chair, a monitor, and a keyboard. In order to accommodate hybrid workers when their time is divided between home and the office, display screen equipment (DSE) assessments will likely need to be conducted in both environments and equipment provided by the employer in order to comply with Health and Safety Regulations (Oulasvirta & Sumari, 2007).

However, this could also be addressed through design with further research into different kinds of devices used for work as people move away from the traditional office environment. While we already know that using different devices can impact people's separation from work (Cecchinato et al., ; Fleck et al., 2015), hybrid workers may experience further difficulties as their technology requirements will differ from their office counterparts. The majority of remote work might be technology-mediated. Although organizations might have significant control over standardizing the virtual environment (e.g., enforcing the use of particular tools), the physical environment is still a critical modulator of people's experiences of a given virtual environment.

Some organizations began to adapt how remote meetings were conducted, e.g., by defining "remote meeting etiquette," a set of rules and guidelines to support participation in online meetings,

to help overcome the barriers remote computer-mediated meetings can create. However, despite these rules, participants still experienced inequalities in participation (e.g., delays and disruption to videoconferences because of inadequate Internet connection, or differences between their and their colleagues' broadband), at risk of leaving them to feel embarrassed and singled out (Epstein et al., 2016; Millar, 2017).

When considering new normals in the future of work and the possibility that hybrid work arrangements become more popular, there are a number of considerations that employers, tech companies, and policymakers should consider and researchers should investigate to create a more level playing field minimize digital inequalities. For example, as at least some workers transition back to the office, models for hybrid meetings need to be further explored in research and practice. For instance, considerations around how effective internet infrastructures are, and if not, alternative methods for keeping workers connected. Some forms of virtual colleague-colleague interaction are more robust to poor connectivity (e.g., instant messaging) than others (e.g., live video conferencing). It is essential we consider what communication norms are enforced and whether these are likely to be attainable across a staff, with varied device access and internet infrastructure.

5.2.2. *Developing a new normal of hybrid work*

When considering what new normal may be developed in the near future of work, we can examine how people may take their existing solutions to a new way of working and what gaps may form due to this disruption. From this we can look to use technology design to both support this transition and circumvent these new breakdowns of normality.

For example, we found that managing 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 (Cecchinato et al.,). These issues were exacerbated for workers both by the fast transition into WfH and by external issues related to the pandemic, including crisis response, the need for childcare and inadequate equipment. However, some participants adopted strategies to overcome these issues, such as scheduling tasks and setting expectations.

As workers continue to transition to a new future of work, further research is needed on how technology can support the adoption of these focus strategies and how they can be maintained in a hybrid future of work, where expectations may differ for remote and office workers. It will be necessary for technology to support the unique and shifting needs of individuals and teams. This means that digital tools will need to both accommodate workers' preferences (e.g., for either a more connected or a more asynchronous style of working) as well as prompting them toward strategies that are most appropriate for their unique circumstances. This could mean providing support during a shift to a new mode of work or helping ensure a balance of uninterrupted and connectedness (Cecchinato et al., 2015; Fleck et al., 2015).

Taking breaks from work was a difficultly highlighted by workers, and while some were able to address such issues with scheduled breaks and dividing up their work/relaxation space, this was not possible for all workers. We know from previous work that a lack of break-taking can negatively impact workers' productivity and physical and mental well-being (Coronavirus and homeworking in the UK: 2019: 2020). This is exacerbated for remote workers by a lack of cues for breaks, which are normally provided in a traditional office environment (e.g., by colleagues getting up from their desks to go for lunch). This could leave remote workers at greater risk of missing breaks once the hybrid model becomes more widely adopted. Technology has previously been shown to be an effective tool in supporting the adoption of break-taking habits (Epstein et al., 2016; Luo et al., 2018). However, how this can be expanded upon to support distributed workers will require further research. One promising avenue is research around micro-productivity (Iqbal et al., 2018) and the idea that technology can better support small, incremental bursts of work while allowing for personal life, interruptions, and breaks to take place organically.

Participants also struggled with the lack of connection they previously 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 (Lindley et al., 2019). Such issues will need to be addressed by institutions in the long term, considering the difficulties surrounding wellbeing and distributed working (Ciolfi & Lockley, 2018). In our results, we saw these take the form of social text chats, virtual coffee breaks, video social events and increased one-to-one meetings online. However, the onus will be on organizations to ensure that the wellbeing of their workers is taken care of. There is scope to investigate how coworkers 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, so considering new options and avenues to promote connectivity in a hybrid work environment will be a key concern for technology design.

5.2.3. *Anticipating hybrid work*

Moreover, when considering the role of technologies in people's journey to establish a new normal, there is potential for remote work technologies to support people's anticipation of the future of work by allowing for more flexibility within their design. Digital tools could be designed to be responsive to people's and teams' modes of working – helping manage a mix of immediate and asynchronous communication. They could also allow for greater personalization to tailor workers' experiences to their unique needs and circumstances. An example of this could be some workers wanting to be more connected while others wish for a more independent and asynchronous way of working. Another example of such individual needs and circumstances could be struggling to take breaks for some people or struggling to focus for a longer period of time for others – or perhaps a mix of both of these problems, as reported by some of our participants.

In a sense, the specific technologies deployed and the quality of the application-specific instructional support given to workers is of secondary concern for distributed and hybrid working contexts. Our participants did not tend to focus on small challenges understanding a particular feature of a particular application. Instead, socio-technical issues are a bigger factor in people's adaptation of particular technology-mediated strategies for working in this context. The technology might be the mediator of interactions, but people's context, for example, their line management; access to non-technical work support; access to informal advice on work design; the anticipation of what work will look like next week or next month, seemed to play a more significant role in the challenges people faced. This impact was especially strong in instances where people were reluctant to invest the time and effort to develop new work strategies. These issues will significantly influence the success of various efforts to introduce hybrid working post-pandemic. The technical environment can be standardized. Much of the software that mediates interactions are common across organizations (e.g., Microsoft Teams, Zoom, Slack). The broader socio-technical factors – the context in which hybrid work takes place – is likely to vary much more substantially. Robust technology deployments are likely to be a necessary antecedent to successful hybrid working, but other socio-technical factors that influence people's willingness or reluctance to invest time and energy into developing new hybrid work strategies are likely to be harder to get right.

Another key issue identified in our studies was the blurring of lines between work and personal life. This led to distraction and longer hours and overworking, with workers struggling to transition out of work at the end of the day and ultimately led to tiredness and decreases in motivation (Cecchinato et al., 2017). This reinforces the known problems relating to creating boundaries when WfH (Kossek et al., 2012). 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 (Bloom, 2020). Research should seek to support the adoption of such boundaries to help remote workers with work-life balance. This could come in the form of technology that supports such strategies can be put into place as well as device use and availability (Ciolfi & Lockley, 2018; Cousins & Robey, 2015). However, how these solutions can maintain flexibility as people's work habits change should be explored further.

The overwhelming majority missed the commute experience 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. For example, prior work has developed to transition at the end of the day (Williams et al., 2018), but it is yet to be seen how effective such methods will be in a hybrid future of work, where workers may wish to be in sync with their coworkers.

6. 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 and some of the personal strategies they used to overcome them in the absence of concrete remote work policies during the first lockdown.

However, as we discuss “the future of work,” it is not the future for all (Lindley et al., 2019). There are many organizational aspects of work that are not unpacked in this paper and a number of existing inequalities that will need to be addressed in specific ways (Brussevich, 2020; Partridge,). The workers in our sample were predominantly permanently employed knowledge workers who began working remotely full-time during the pandemic. While this paper does highlight key areas for focus in the new future of work, it is key to highlight the additional factors and multiple organization types that still require further study. While not uncommon in many people’s current experience and indeed in previous work in this field, these issues are remarkable due to the number of issues now coming to a head. As we begin to see how workplaces adapt post-pandemic, it is imperative we learn from these insights and prepare for what that future brings. Moreover, while this paper makes a number of recommendations for policy, organizational change and future HCI research, it should be noted that currently, the burden is on individuals to manage these changes in work practice and cope with the strains it brings. In the long-term, this invisible work will no doubt take its toll on the workforce and it is more important than ever that we push for systematic change in the way we support workers physical and mental wellbeing.

From this work, we highlight a number of future policy and research avenues to support remote and hybrid workers going forward into the new future of work, including supporting focus, providing adequate setups for workers, helping workers develop and maintain work-life boundaries and helping distributed workers stay connected. Through this, we hope to be better prepared to provide socio-technical support to workers as they transition to the new normal of work. Specifically, as we move into a potential remote/hybrid workplace in the future, we can help workers adopt the technological solutions that exist in their new work practices. Using the new normal framework can help us contextualize issues and responses to drastic changes to people work and while it continues to help us understand the changing nature of work due to the pandemic, it may also help us understand how workers respond to other changes to their ways of working, for example, due to automation or AI solutions. This framework helps us understand and characterize these responses so that we in the field of HCI can examine ways in which our workplace technology may facilitate better transitions to new normals of work.

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Contribution Statement

A1 & A2 made equal contributions as first authors. Data was collected and analysed by A1, A2 and A3. All authors made contributions to the design of the study and the writing of the manuscript. A6 & A5 both contributed funding. A6 provided oversight and supervision of the project.

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References

- Anicich, E. M., Foulk, T. A., Osborne, M. R., Gale, J. & Schaerer, M. (2020). Getting back to the “new normal”: Autonomy restoration during a global pandemic. *Journal of Applied Psychology*, 105(9), 931–943. <https://doi.org/10.1037/apl0000655>
- Apple employees push back against returning to the office in internal letter: <https://www.theverge.com/2021/6/4/22491629/apple-employees-push-back-return-office-internal-letter-tim-cook>. Accessed 2021 June 10
- Bloom, N. (2020). COVID and working from home. *The New Future of Work Online Symposium* Virtual (Microsoft Research). (August. 2020).
- Braun, V., & Clarke, V. (2014). What can “thematic analysis” offer health and wellbeing researchers? *International Journal of Qualitative Studies on Health and Well-being*, 9(1 26152). <https://doi.org/10.3402/qhw.v9.26152>
- Bruce, Daisley eat sleep work repeat (Accessed 19 10 2021). <https://eatsleepworkrepeat.com/>.

- Brussevich, M. (2020). Remote working is not working for the poor, the young and women, a new study finds. *World Economic Forum* (Accessed 19 10 2021). <https://www.weforum.org/agenda/2020/07/remote-teleworking-covid19-social-distancing>.
- Cecchinato, M. E., Cox, A. L., & Bird, J. 2015. Working 9-5? Professional differences in email and boundary management practices. *Conference on Human Factors in Computing Systems - Proceedings* San Jose (2015 (ACM) 3989–3998).
- Cecchinato, M. E., Cox, A. L., and Bird, J. 2017. Always On(line)? User experience of smartwatches and their role within multi-device ecologies. *Conference on Human Factors in Computing Systems - Proceedings* Denver, Colorado, USA (2017 (ACM)), 3557–3568.
- Cecchinato, M. (2018). *Communicating in a multi-role, multi-device, multi-channel world: how knowledge workers manage work-home boundaries*. UCL.
- Cioffi, L., & 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*, 27(3–6), 2018. <https://doi.org/10.1007/s10606-018-9315-3>
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24 (4), 385–396. <https://doi.org/10.2307/2136404>
- Cook, D. (2020a). The freedom trap: Digital nomads and the use of disciplining practices to manage work/leisure boundaries. *Information Technology and Tourism*, 22(3), 355–390. <https://doi.org/10.1007/s40558-020-00172-4>
- Cook, D. (2020b). The global remote work revolution and the future of work. In J. Liebowitz, J. ed. *The Business of Pandemics*. Auerbach Publications. <https://doi.org/10.1201/9781003094937>.
- Coronavirus and homeworking in the UK: 2019: (2020). <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/coronavirusandhomeworkingintheuk/latest#hours-worked>. Accessed 2020-11-26
- Cousins, K., & Robey, D. (2015). Managing work-life boundaries with mobile technologies. *Information Technology & People*, 28(1), 2015. <https://doi.org/10.1108/itp-08-2013-0155>
- Dan Asher: “Mums do most childcare and chores in lockdown”: (2020). <https://www.bbc.co.uk/news/business-52808930>. Accessed 2020 June 17
- Demerouti, E., Mostert, K., & Bakker, A. B. (2010). Burnout and work engagement: A thorough investigation of the independency of both constructs. *Journal of Occupational Health Psychology*, 15(3), 2010. <https://doi.org/10.1037/a0019408>
- Epstein, D. A., Avrahami, D., & Biehl, J. T. 2016. Taking 5: Work-breaks, productivity, and opportunities for personal informatics for knowledge workers. *Conference on Human Factors in Computing Systems - Proceedings* San Jose (ACM) (2016).
- Felstead, A. (2012). Rapid change or slow evolution? Changing places of work and their consequences in the UK. *Journal of Transport Geography* 21, 31–38. <https://doi.org/10.1016/j.jtrangeo.2011.10.002>
- Fleck, R., Cox, A. L., & Robison, R. 2015. Balancing boundaries: Using multiple devices to manage work-life balance. *Conference on Human Factors in Computing Systems - Proceedings* Seoul, Korea (2015).
- Genuis, S. K., & Bronstein, J. (2017). Looking for “normal”: Sense making in the context of health disruption. *Journal of the Association for Information Science and Technology*, 68(3), 750–761.
- Gregg, M. (2011). *Work’s Intimacy*. Polity Press.
- Guillou, H., Chow, K., Fritz, T., & McGrenere, J. 2020. Is your time well spent? reflecting on knowledge work more holistically. *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems* (Honolulu, HI, USA, 2020 (ACM)), 1–9.
- Hahn, N., Iqbal, S. T., & Teevan, J. 2019. Casual microtasking: Embedding Microtasks in Facebook. *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems - CHI ’19* (Glasgow, UK, 2019 (ACM)), 1–9.
- Halford, S. (2005). Hybrid workspace: Re-spatialisations of work, organisation and management. *New Technology, Work and Employment*, 20(1), 2005. <https://doi.org/10.1111/j.1468-005X.2005.00141.x>
- Iqbal, S. T., Teevan, J., Liebling, D., & Thompson, A. L. 2018. Multitasking with play write, a mobile microproductivity writing tool. *The 31st Annual ACM Symposium on User Interface Software and Technology - UIST ’18* (New York, New York, USA, 2018 (ACM)), 411–422.
- Jarrah, M. H., & Sawyer, S. (2017). More than nomadicity: the paradoxical affordances of liminality. *International Reports on Socio-Informatics (IRSI)*, 14(3), 29–33.
- Kaur, H., Williams, A. C., McDuff, D., Czerwinski, M., Teevan, J., & Iqbal, S. T. 2020. Optimising for happiness and productivity: Modeling opportune moments for transitions and breaks at work. *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems* (New York, NY, USA, 2020 (ACM)), 1–15.
- Kim, Y.-H., Choe, E. K., Lee, B., & Seo, J. 2019. Understanding personal productivity: How knowledge workers define, evaluate, and reflect on their productivity. *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems* (New York, NY, USA, 2019 (ACM)), 1–12.
- Koehne, B., Shih, P. C., & Olson, J. S. 2012. Remote and alone. *Proceedings of the ACM 2012 conference on Computer Supported Cooperative Work - CSCW ’12* (New York, New York, USA, 2012 (ACM)), 1257.

- Kossek, E. E., Ruderman, M. N., Braddy, P. W., and Hannum, K. M., 2012). Work-nonwork boundary management profiles: A person-centered approach. *Journal of Vocational Behavior* 81 1 , 112–128. <https://doi.org/10.1016/j.jvb.2012.04.003>
- Kraut, R. E. (1989). Telecommuting: The of home work. *Journal of Communication*, 39(3), 1989. <https://doi.org/10.1016/j.jvb.2012.04.003>
- Lascau, L. et al. 2019. Monotasking or multitasking: Designing for crowdworkers' preferences. *Conference on Human Factors in Computing Systems - Proceedings* (May 2019).
- Leshed, G., Håkansson, M., & Kaye, J. 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* Baltimore, Maryland, USA (ACM) (2014).
- Lindley, S., Raval, N., Alavi, H. S., Lindtner, S., & Wang, W. 2019. The future of work. *Conference on Human Factors in Computing Systems - Proceedings* Glasgow, UK (ACM) (2019).
- Luo, Y., Lee, B., Wohn, D. Y., Rebar, A. L., Conroy, D. E., & Choe, E. K. 02018. Time for break: Understanding information workers' sedentary behavior through a break prompting system *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* Montreal QC, Canada (ACM). .
- Makortoff, K. NatWest preparing for just 13% of staff to work in office full-time202. (Accessed 19 10 2021 July). *The Guardian*. 01 <https://www.theguardian.com/business/2021/jun/01/natwest-preparing-for-just-13-of-staff-to-work-in-office-full-time> .
- Mazmanian, M. (2013). The autonomy paradox: The implications of mobile email devices for knowledge professionals. *Organization Science*, 24(5), 2013. <https://doi.org/10.1287/orsc.1120.0806>
- Mazmanian, M. (2019). Worker/smartphone hybrids: The daily enactments of late capitalism. *Management Communication Quarterly*, 33(1), 2019. <https://doi.org/10.1177/0893318918811080>
- Metin, U. B., Taris, T. W., and Peeters, M. C. W., 2016). Measuring procrastination at work and its associated workplace aspects. *Personality and Individual Differences* 101 , 2016. <https://doi.org/10.1016/j.paid.2016.06.006>
- Millar, K. M. (2017). Toward a critical politics of precarity. *Sociology Compass*, 11 , e12483. <https://doi.org/10.1111/soc4.12483>
- Neilson, B., & Rossiter, N. (2008). Precarity as a political concept, or, fordism as exception. *Theory, Culture & Society*, 25, 7–8 , 51–72. <https://doi.org/10.1177/0263276408097796>
- Office Workers Want to Keep Working at Home, Just Not Every Day: (2020). <https://www.bloomberg.com/news/articles/2020-11-17/office-workers-want-to-keep-working-at-home-just-not-every-day>. Accessed 2020 December07
- Oulasvirta, A., & Sumari, L. 2007. Mobile kits and laptop trays: Managing multiple devices in mobile information work. *Conference on Human Factors in Computing Systems - Proceedings* San Jose, California, USA (ACM) (2007).
- Partridge, J. Staff Who Work from Home after Pandemic "Should Pay More Tax . (November 11 Accessed 19 10 2021. <https://www.theguardian.com/business/2020/nov/11/staff-who-work-from-home-after-pandemic-should-pay-more-tax>). *The Guardian*).
- Patel, D., Blandford, A., Warner, M., Shawe, J., & Stephenson, J. 2019. "I feel like only half a man" Online Forums as a Resource for Finding a "New Normal" for Men Experiencing Fertility Issues. *Proceedings of the ACM on Human-Computer Interaction*, 3(CSCW), 1–20.
- Perry, M. (2001). Dealing with mobility: Understanding access anytime, anywhere. *ACM Transactions on Computer-Human Interaction*, 8(4), 2001. <https://doi.org/10.1145/504704.504707>
- Rogers, Y. (2020). Is remote the new normal? Reflections on covid-19, technology, and humankind. *Interactions*, 27(4), 42–46. July 2020 <https://doi.org/10.1145/3403586>
- Rudnicka, A. (2020). *Disclosure of personal data in citizen science settings*. UCL.
- Stawarz, K., Cox, A. L., Bird, J., & Benedyk, R. 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* Paris, France (ACM) (2013).
- Three quarters of workers don't want to go back to the office full-time: (2020). <https://www.zdnet.com/article/three-quarters-of-workers-dont-want-to-go-back-to-the-office-full-time/>. Accessed: 2020 December07
- Wajcman, J. (2018). Digital technology, work extension and the acceleration society. *German Journal of Human Resource Management*, 32(3–4), 3–4. <https://doi.org/10.1177/2397002218775930>
- Whiting, R., & Symon, G. (2020). Digi-Housekeeping: The invisible work of flexibility. *Work, Employment and Society*, 34 (6) , 2020. <https://doi.org/10.1177/0950017020916192>
- Williams, A. C., Kaur, H., Mark, G., Thompson, A. L., Iqbal, S. T., & Teevan, J. 2018. Supporting workplace detachment and reattachment with conversational intelligence. *Conference on Human Factors in Computing Systems - Proceedings* Montreal QC, Canada (ACM) (2018).
- Zyskowski, K., Morris, M. R., Bigham, J. P., Gray, M. L., & Kane, S. K. 2015. Accessible crowdwork? Understanding the value in and challenge of microtask employment for people with disabilities. *CSCW 2015 - Proceedings of the 2015 ACM International Conference on Computer-Supported Cooperative Work and Social Computing* Vancouver, BC, Canada (ACM) (2015).