

# Work From Home (WFH) During COVID-19: Is Virtual Reality (VR) a New Solution to New Problems?

To the Editor:

## WORK FROM HOME DURING COVID-19: PSYCHOSOCIAL BOUNDARIES LOST

Xiao et al<sup>1</sup> very clearly reported in this journal what is currently happening in the home of those who are using work from home (WFH) due to COVID-19. Indeed, the pandemic, which has plagued the world for a year now, has forced many organizations and workers to shift to remote work solutions—most of the time, WFH—in order to contain the spread of the virus through social contacts, which used to normally occur at workplaces. This has meant significant changes. Dozens of workers have abruptly stopped going to the office to perform their job activities, which has not only required important organizational efforts from the part of the employers, but it has also raised the need for adjustments both at the personal and family level. As a result, several people nowadays find themselves being engaged in work or study activities which they carry out together with other people (eg, partners, children, parents, housemates, and so on) carrying out different activities but in the very same house and at the very same time. This has been effectively shown by Xiao et al<sup>1</sup> to have noteworthy repercussions on both physical and mental health of homeworkers. The authors have not only described what the situation may be in physical places where homeworkers may be carrying out their daily work activities, but they also have identified factors explaining the understudied phenomenon. What mostly results from such an analysis is that houses of COVID-19 homeworkers are crowded, which leads to frequent interruptions and distractions, which in turn leads to decreased physical and mental

health. In addition, factors associated with lowered well-being in the context of COVID-19 WFH relate to the need of adjusting work schedules around other people, having to take care of children, and similar. This scenario is not completely new.<sup>2</sup>

Remote work is a 40-year phenomenon now, and its drawbacks have been largely discussed by previous literature, such as, for instance, feelings of social isolation,<sup>3,4</sup> pressure deriving from the need to balance family and work expectations,<sup>5</sup> and negative consequences on individual career.<sup>6</sup> However, the COVID-19 scenario has exacerbated these issues since: 1) an unprecedentedly large part of the working population is currently involved by WFH (and often times, in an involuntary and unplanned nature); 2) homeworkers are today “all in the same boat”; and 3) WFH drawbacks may have become more acute, given the precariousness that characterizes current times and the psychological suffering associated with them.<sup>7</sup> Therefore, novel problems are likely to be emerging, which call for new solutions capable of re-establishing the psychosocial boundaries between work and private life domains that COVID-19 teleworkers have lost at the expenses of their own physical and mental health.

## MAY VIRTUAL REALITY BE A NEW SOLUTION TO NEW PROBLEMS? THEORETICAL FOUNDATIONS

To our understanding, one of the main practical implications that one can draw from the study by Xiao et al<sup>1</sup> is a suggestion toward creating a healthy form of estrangement from the home environment while still working at home. Quite paradoxically, COVID-19 teleworkers' home needs to become “less a home” and “more an office” to re-establish physically and mentally healthy work-home psychosocial boundaries. One solution, somewhat cast in a futurist sense but recognizing the falling costs of immersive technologies, is the use of virtual reality (VR).

One of the stressors of WFH is that it causes a traumatic clashing of normally separate space.<sup>8</sup> That is, people were used to live in their “first place” (their homes, normally reserved for private life) and working in their “second place” (their workplaces) and, apart from exceptional cases, keeping those separate from each other and even having a physical and mental ritual for leaving one for the other. Of course, these become inextricable under WFH situation, even moreso so when WFH plans are of more spontaneous and unplanned nature (such was the case for many during COVID-19). To counter this, VR technology could create time-bound “islands” of deep immersion and concentration in a work environment that

could truly take the workers out of their home for as long as they need. VR allows people to perceptually and psychologically leave their first place and enter their second place. In other words, VR might be the alternative to going out while staying in. How this could work and look like is suggested by few services already available on the market (eg, Sky Real, The Wild, Spatial), but we might expect it to be further refined by future technological developments.

## VIRTUAL REALITY USE–NON-USE BOUNDARIES: QUESTIONS FOR FUTURE RESEARCH AND PRACTICE

Pros and cons come with every solution, and this is the case for VR-based WFH. As such that its working conditions might be worth to be assessed. That is, we do not expect it to be effective *per se* nor *a priori*, but rather if some effectiveness conditions are met. Here, an implementation framework can be sketched.

VR should not be seen as a panacea for all telework-related problems, and a critical and complex attitude toward its deployment should be adopted anyway. For example, it is a still-to-be-answered question whether prolonged exposure to virtual reality might affect the sense toward actual reality.<sup>9</sup> On the other hand, one might also argue that there is scarce basis to state that virtual reality is less real than any other types of reality, especially since nowadays human beings spend most of the time at screens and social media platforms and similar, where important parts of real lives are undoubtedly happening.

Also, VR effectiveness in solving WFH-related problems is likely contingent on notable individual differences. For instance, people have different individual preferences when it comes to managing boundaries between work and private life domains<sup>10</sup> and these should be considered when foreseeing VR deployment. Mostly, such preferences divide into integration and segmentation. People with integration preferences tend to be fine with merging work and private life domains, while people with segmentation preferences want to keep them separate. It may be interesting to investigate how VR use in COVID-19 WFH would interact with individual preferences regarding work-home boundaries management.

Finally, deployment of VR to solve WFH-related problems should not be recommended without having first tested what the relevant stakeholders think about it. Workers may resist the introduction of novel technology when they are not involved in its design, development, and implementation in a participative and empowering fashion<sup>11</sup> or they do not find it usable or useful, or lack support for the

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systems.<sup>12</sup> Additionally, other organizational actors may contribute to resistance toward technological changes in the workplace (eg, labor unions).<sup>13</sup> Practitioners should consider these aspects.

To conclude, on the one hand, we see VR as a promising way to alleviate physical and mental burden, which COVID-19 has imposed to homeworkers. On the other hand, we hope to stimulate directions for future research on this relevant and timely matter.

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