

# Managing Virtual Workers— Strategies for Success

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**Abstract**—The dramatic increase in virtual work during the COVID-19 pandemic boosted organizational capacity for virtual work, and is likely to result in a long-term increase in the number of employees working remotely. Although virtual work has obvious advantages for both employees and organizations, it comes with many challenges. In this article, we identify the challenges inherent in virtual work today and describe their negative impact on employee stress, well-being, and performance. We argue that managers must be proactive in addressing these challenges in order to fully leverage the benefits of virtual work. We offer concrete strategies that they can use to counter the problems commonly encountered by virtual workers.

**Key words:** Leadership, supervision, virtual work

**E**VOLVING technologies have been driving dramatic shifts in the way people work, allowing them to complete their tasks virtually without having to physically travel to their offices. This phenomenon has been described using various terms, including telecommuting, telework, virtual work, remote work, and mobile work. The percentage of employees working remotely has risen in most developed countries in recent years [International Labour Organization, 2016]. A study of the U.S. workforce found that the percentage of employees working from home at least some of the time went from 39% in 2012 to 43% in 2016 [Gallup, 2017]. There was a very large uptick in virtual work in the U.S. during the COVID-19 pandemic: in the two weeks from March 13 to April 2, 2020, the percentage of people who reported working from home increased from 33% to 61% [Gallup, 2020]. Moreover, polls indicate that many workers discovered an affinity for working from home during the forced lockdown; a large proportion of them (59%) say that they would like to work at home as much as possible even after restrictions are

lifted. Moreover, organizations have expanded their capacity for virtual work as a result of the crisis, increasing the likelihood that some of the increase in virtual work will be sustained over the long run.

Virtual work is especially common in professional, scientific, and technical services, with 17% of U.S. employees in this economic sector working remotely [Global Workplace Analytics, 2017]. Virtual work offers obvious advantages for employees and employers. For instance, it provides employees with flexibility and reduces their commuting time and costs. It also allows employers to save on travel costs, shrink office space, get access to talent around the globe, and potentially reduce their environmental footprints. Employees and organizations may fail to realize, however, that working virtually comes with many challenges and may create substantial stress for employees. Managers must help employees deal with the challenges associated with virtual work so that organizations and employees can leverage its advantages. In this article, we outline the special challenges of virtual work and offer managerial strategies for addressing these challenges.

## VIRTUAL WORK AND STRESS

As employees' work becomes more virtual, they may encounter numerous challenges that increase stress and ultimately impact their well-being and performance. The job demands-resources (JD-R) model, a prominent model in research on job stress, is helpful in understanding how virtual work increases employee stress and identifying possible solutions ([Bakker and Demerouti, 2007]; [Van Veldhoven *et al.*, 2020]). The model focuses on the *job demands* and *resources* in the work environment. Job demands require employees to expend continual mental, emotional, or physical effort. Examples of job demands include a high workload, time pressure, and emotionally demanding customer interactions. Job resources help employees attain work goals, and encourage learning and development. Examples of job resources include proper equipment, support from managers and coworkers, control over when and how work is done, participation in decision making, and learning and development opportunities.

Excessive job demands create stress—employees' nervous systems rev up (e.g., cortisol production increases), and they expend more effort in an attempt to attain goals. In contrast, job resources not only help employees achieve goals, but also protect them from the harmful effects of excessive work demands ([Bakker and Demerouti, 2007]; [Van Veldhoven *et al.*, 2020]). For instance, support from managers may help employees complete their tasks, and allow them view their workloads as less daunting. Skills training enhances employees' ability to meet goals, and increases their capacity to cope with demands. Thus, employee stress can be curbed by avoiding unreasonable demands and boosting resources. When demands are excessive and/or employees do

not have sufficient resources, stress increases. Prolonged stress may ultimately lead to exhaustion, burnout, and impaired performance and turnover; it should be avoided.

The JD-R model is useful in understanding how the unique challenges of virtual work create stress among employees. Virtual work may be accompanied by technological challenges, heavy workloads, diminished manager–employee relationships, low levels of social connection, and the blurring of the boundary between work and home. Together, these challenges increase demands on employees while simultaneously depriving them of some of the resources they need to perform well and cope with the increased work demands.

**Technology Challenges** Virtual workers' heavy reliance on information and communication technologies (ICTs) creates additional job demands. They must devote time to staying current on these constantly changing and increasingly complex technologies [Ragu-Nathan *et al.*, 2008]. Some virtual workers may have limited access to training and technical support, making it difficult to stay up-to-date and master the technologies. In some locations, workers may be hampered by inadequate infrastructure (e.g., lack of fast Internet).

Moreover, even if virtual workers have a technical understanding of ICTs, they may not know how to use them effectively in virtual settings [Wang and Haggerty, 2011]. For instance, they may not be able to choose the right technology for the task (e.g., conveying factual versus emotional information) or tailor their approach to the audience. They may also lack the ability to build social relationships with others in virtual settings where the cues (e.g., facial expressions, body language) that we use to

understand others' emotions and meaning are lacking.

**Increased Workloads** Virtual work is often associated with increased employee workloads. Organizations may raise performance goals because they anticipate increased efficiencies and innovation as a result of the use of ICTs. Furthermore, workers must manage multiple information streams on different platforms; they may feel overloaded as they frantically work to keep up with incoming information [Ragu-Nathan *et al.*, 2008]. They may also experience time pressure if ICTs require them to accomplish work faster or under tight time schedules [Tarafdar *et al.*, 2015]. Long work hours are also likely due to time zone differences or organizational expectations that virtual workers will be available outside of “normal” work hours [Dettmers, 2017].

**Low-Quality Manager-Employee Relationships** Virtual workers may have subpar relationships with their managers, depriving them of a resource that is critical to their success ([Bakker and Demerouti, 2007]; [Van Veldhoven *et al.*, 2020]). The lack of face-to-face interactions between managers and virtual workers interferes with trust, warmth, and liking [Golden, 2006]. Moreover, managers may react to employees' physical absence by being either inattentive or overcontrolling. Inattentive managers essentially treat virtual workers as if they are invisible. Managers do not clearly communicate goals, priorities, and performance measurement criteria. They may also fail to demonstrate concern for employees' well-being or recognize their efforts and contributions ([Raghuram and Wiesenfeld, 2004]; [Zhang, 2016]). At the other extreme, overcontrolling managers may not trust virtual employees to get work done; they closely monitor employees' work, leading employees to experience

increased work pressure and a lack of autonomy.

**Lack of Social Connection** Strong social connections are an important resource at work; they allow employees to bond with others and feel connected to the organizational community. They also boost employee performance by fostering information exchange, collaboration, creativity, and innovation. Virtual workers often experience a lack of social connection. They have fewer opportunities to interact with coworkers and participate in organizational activities, making it hard to establish bonds with colleagues. They also have less access to the information that is typically shared in informal interactions (e.g., impromptu conversations with colleagues); this lack of information may impact performance. Moreover, the lack of social cues (e.g., facial expressions, tone of voice) in their virtual interactions may lead to miscommunication, personal conflicts, and frayed relationships ([Golden, 2006]; [Raghuram and Wiesenfeld, 2004]; [Zhang, 2016]).

**Blurring of the Work-Home Boundary** The traditional office provides a physical boundary between work and home that limits the degree to which employees' work and family lives interfere with one another. There is no such boundary when virtual work takes place in the home. As a result, employees may experience challenges. Some employees may focus on family demands during normal work hours, potentially impacting performance. Many, however, will find that the presence of a work space in the home makes it too easy to work long hours. Organizational expectations of constant connectivity and after-hours availability, as well as time zone differences, compound the intrusion of work into personal time [Barber *et al.*, 2019]. Lack of personal time

may compromise the quality of employees' relationships with family members, potentially adding to employees' stress.

Moreover, the intrusion of work into personal time leaves employees with no chance to recover from work demands; they are unable to disengage from work, relax, and recharge outside of normal work hours [Barber *et al.*, 2019]. Recovery from work is critical to reducing stress, and failure to do so leads to negative feelings (e.g., sadness, fatigue, or anger), poor sleep, and reduced work engagement the next day. Moreover, when individuals fail to recover from work on an ongoing basis, their stress compounds over time, leading to exhaustion, performance problems, and burnout [Sonnentag, 2018].

In sum, virtual work creates a myriad of challenges for employees. They face additional demands as a result of technological challenges, heavy workloads, and the blurring of work-home boundary. At the same time, employees' access to important resources—managerial support and social connections—may be diminished.

## STRATEGIES

Given the challenges of virtual work, managers need to be proactive in managing virtual employees. Managers should monitor work demands so that they do not become excessive and ensure that employees have access to critical resources. This will reduce employees' stress and enhance their well-being and performance. Below, we offer a number of specific actions that managers might consider.

**Technology** Managers need to ensure that appropriate hardware, software, and technical support are available. This seems obvious, but

resource constraints and differences in infrastructure across locations may make this difficult. Employees need training to develop *virtual competence* or skill in using technology in a virtual setting [Wang and Haggerty, 2011]. Virtual competence includes not only technical knowledge, but an understanding of the pros and cons of different media, and how and when to use them. Employees should be able to use media to effectively give and receive feedback, convey various types of information (e.g., facts, emotional issues), and collaborate with and influence others. Providing employees with appropriate tools and technical support, and giving them training to boost their competence will increase their ability to handle the demands of their work.

**Reasonable Workloads** Managers should examine their expectations about the productivity of virtual workers to ensure that they are reasonable. Expectations should take into account the time required for employees to become and stay current on ICTs, the challenges of absorbing and responding to a barrage of information across multiple platforms, and the likelihood of communication problems.

Managers should set realistic goals and deadlines to address the time pressure associated with using technology that requires employees to work faster or under tight deadlines [Tarafdar *et al.*, 2015]. Unreasonable goals and deadlines do not enhance performance. Instead, they put excessive pressure on employees, and ultimately impair performance. Managers should also help employees prioritize projects and keep them informed on shifting priorities and goals so that they can better manage their workloads. In addition, managers need to reconsider expectations for constant connectivity and extended hours availability. All of these actions will

help employees manage job demands.

**Strong Manager–Employee Relationships**

Managers need to be intentional about establishing and maintaining strong relationships when employees work virtually ([Golden, 2006]; [Raghuram *et al.*, 2001]). As noted earlier, these relationships are one of the most fundamental job resources. Open communication is critical for establishing trust between managers and virtual workers. Frequent, regular conversations using rich, synchronous technology that provides social cues (i.e., video chats) are helpful. Managers must express concern for employees’ well-being and let them know that their contributions are valued; these messages can get lost when employees work virtually. Managers should not underestimate the need to communicate [Neeley, 2020].

Managers need to be proactive in helping employees succeed. They should ensure that roles, priorities, and performance criteria are clear so that employees know what they should do and how their success will be measured [Raghuram and Wiesenfeld, 2004]. Employees must also have the tools, equipment, and training needed to perform their jobs. Moreover, because managers may be unaware of the problems and challenges that virtual workers are facing, they should ask employees if they are encountering obstacles and consider what might be done to overcome them.

Managers must resist the temptation to overcontrol virtual employees ([Neeley, 2020]; [Raghuram *et al.*, 2001]). It is tempting to monitor employees closely because they are not physically present, particularly if trust has not been developed or the employee has no experience with virtual work. However, incessant monitoring of the employees’ work is not the best strategy. Instead,

managers should focus on whether outcomes are being achieved. They should provide workers with a level of autonomy that is suitable for their level of experience and competence. Autonomy is likely to enhance performance [Kanat-Maymom and Reizer, 2017]. It includes allowing employees to determine how they approach projects, giving them a voice in decisions and job assignments, and encouraging them to solve problems rather than simply imposing solutions.

**Boost Social Connections**

Managers must take steps to counter the sense of isolation created by virtual work. If possible, employees should visit the organization’s physical office before they begin working virtually to establish relationships with the manager and colleagues. The in-person interactions that occur during these visits will facilitate interpersonal trust [Golden, 2006]. Once employees are working remotely, synchronous video and phone chats are better than asynchronous technologies for maintaining relationships, although time zone issues can make scheduling difficult. Virtual meetings, coffee hours, or water cooler chats may be a useful way to keep members of work groups connected with one another. Interactions, whether one-on-one or in groups, should include informal conversations, not just work discussions. Managers also need to make sure employees know what is occurring in the larger organization so

that they feel like part of the organizational community. Managers must not underestimate the need for social connection; it satisfies the employee’s fundamental need to bond with others.

**Value the Whole Person**

A “culture of overwork” exists in many organizations today [Ely and Padavic, 2020]; virtual workers are particularly likely to experience overwork due to the lack of a physical boundary between work and home, constant connectivity, and time zone differences. As noted earlier, working long hours has a significant downside; it compromises family relations, prevents recovery from work, creates stress, and ultimately leads to burnout, diminished productivity, and turnover. It is critical that managers who supervise virtual workers consider the risks of long work hours.

Managers must take a holistic approach that acknowledges the importance of employees’ work and personal lives. This approach recognizes that personal time is critical to employees’ success and well-being. It includes reasonable expectations around connectivity and availability outside of normal work hours so that employees have time for their personal lives. Managers are responsible for setting norms for their organizations; they should model healthy behaviors and initiate discussions about work demands and the importance of work-life balance. Managers should also ensure that

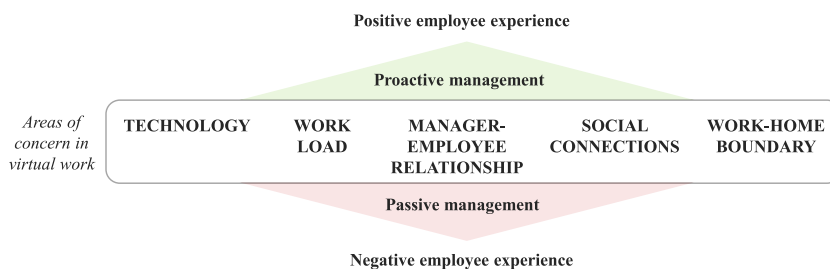


Figure 1. Proactive versus passive management in virtual work.

**Table 1. Virtual Work: Challenges and Solutions.**

PROBLEM AREA	CHALLENGES	SOLUTIONS
Technology	<ul style="list-style-type: none"> <li>• Inadequate infrastructure, training, and technical support</li> <li>• Employees must stay up-to-date on technology</li> <li>• Employees struggle to use technology effectively in a virtual setting</li> </ul>	<ul style="list-style-type: none"> <li>• Provide appropriate hardware, software, training, and technical support</li> <li>• Provide training to strengthen employees' ability to use various media effectively in a virtual setting</li> </ul>
Workload	<ul style="list-style-type: none"> <li>• Unrealistic performance expectations</li> <li>• Information overload</li> <li>• Time pressure</li> <li>• Long work hours due to time zone differences and 24/7 availability expectations</li> </ul>	<ul style="list-style-type: none"> <li>• Take into account the demands created by transition to virtual work</li> <li>• Set realistic goals and deadlines</li> <li>• Help employees prioritize projects and keep them informed of shifting priorities</li> <li>• Reconsider need for constant connectivity</li> </ul>
Manager-Employee Relationship	<ul style="list-style-type: none"> <li>• Working virtually impairs the manager-employee bond</li> <li>• Risk of manager being inattentive or overcontrolling</li> </ul>	<ul style="list-style-type: none"> <li>• Clear, regular, and frequent communication</li> <li>• Clarify roles, priorities, goals</li> <li>• Address obstacles to progress</li> <li>• Provide autonomy</li> </ul>
Social Connections	<ul style="list-style-type: none"> <li>• Sense of isolation</li> <li>• Difficulty establishing trust with colleagues</li> <li>• Lack of access to informal information</li> <li>• Lack of social cues increases the potential for personal conflict</li> </ul>	<ul style="list-style-type: none"> <li>• Create explicit opportunities for connection</li> <li>• Include informal conversations</li> <li>• Keep updated on the organizational events and news</li> <li>• Use richer media (e.g., video chat)</li> </ul>
Work-Home Boundary	<ul style="list-style-type: none"> <li>• Work intrudes on family and personal time</li> <li>• Long work hours</li> <li>• Failure to recover from work</li> </ul>	<ul style="list-style-type: none"> <li>• Set reasonable norms regarding availability</li> <li>• Model healthy work-life balance</li> <li>• Provide workshops on work-life balance and recovery from work</li> </ul>

employees who devote time to their families are not penalized when personnel decisions are made.

Managers might also sponsor virtual or in-person workshops that help employees achieve an appropriate balance between work and family. Such workshops might include techniques virtual workers can use to enhance productivity and manage the boundary between work and personal time (e.g., creating schedules and structure, setting up a separate space for work in the home, sharing household duties with family members). Training on recovery from work would also be useful [McMurtrie and Crane, 2017]. Employees should be informed about the benefits of regular recovery from work for well-being and performance, as well as activities for facilitating recovery

such as exercise, mindfulness and meditation, spending time with family or friends, pursuing personal interests or hobbies, and volunteering in the community [ten Brummelhuis and Bakker, 2012].

We summarize the major points of our discussion in Figure 1 and Table 1. Figure 1 depicts the importance of proactive management of five aspects of virtual work: technology, workloads, manager–employee relationships, social connections, and work-home boundaries. Proactive management of these factors will lead to positive experiences for virtual workers, and passive management is likely to result in negative experiences. Table 1 summarizes the specific challenges that occur in virtual work, as well as potential managerial strategies for addressing these challenges.

## CONCLUSION

Although virtual work offers a host of benefits, it is associated with many challenges, including technological problems, increased workloads, poor-quality manager–employee relationships, reduced social connections, and blurring of work-home boundaries. These challenges increase the demands on employees and diminish the availability of important resources that might facilitate their success. Managers must take proactive steps to address the challenges of virtual work so that they can fully leverage its benefits and facilitate employee well-being and performance.

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