The Challenges of Managing Virtual Employees

Many companies, especially in the IT sector, face significant challenges in acquiring, recruiting, and retaining skilled employees. Several factors have been combining to fundamentally change the employment market and make it harder for companies to find the talent they need. The most prominent of these factors include the shift of power from employer to employee, the demographic changes in Western economies (with millennials comprising an ever-increasing proportion of the workforce), and the globalization of talent enabled by technology.

In the past, businesses without access to skilled workers could outsource and/or complement existing talent pools with expensive management consultants. Currently, an alternative and compelling option is to build a virtual workforce by using easily accessible and highly effective technologies to facilitate collaboration and communication among workers who are not co-located. Today, an employee can participate in a real-time videoconference on any device, in or outside a firm’s office, while working in any time zone. Such “virtual meetings” can be quicker than physical meetings because there is no need to move away from one’s own desk.

Interestingly, many companies repeatedly fail to employ virtual workers. Although the specific reasons differ from company to company, we identified two common factors among
the large number of companies we examined that were failing to employ virtual workers:

- There was a lack of understanding on how best to engage with virtual workers, given workers’ individual characteristics.
- There was a lack of understanding of how best to integrate virtual and in-office workers.

We found that many companies do not appear to fully appreciate the consequences of virtual workers, especially the blurring of the boundaries between their professional and private lives. This blurring creates a unique work environment for the individual and, as a result, the company itself.\(^5\) By assuming that the only difference between an in-office and a virtual employee is their physical location, many companies fundamentally misunderstand the reality of this new employee-employer dynamic, and thus limit the potential effectiveness of their relationship with virtual workers.\(^6\) In reality, the differences between in-office and virtual workers are vast and nuanced, and these differences introduce significant change in the companies’ social and knowledge networks in terms of how individuals collaborate, interact, access information, and contribute to a company’s knowledge.

Moving forward, the overall success of organizations will depend on teaching and enabling employees working remotely to collaborate across different locations, time zones, and schedules. To facilitate this process, we present the Virtual Work Stage Model. This model is founded on insights from pioneering organizations that have been exceptionally successful in shifting part or all of their workforce outside the physical office and in hiring leading talent to fill remote positions. Our model offers companies a means for mastering the challenges of managing both in-office and virtual employees, and enables them to successfully create a competitive advantage through hiring leading talent.

### Three Readiness Challenges Faced by Potential Virtual Workers

Information systems (IS) research has examined virtual work (also known as remote work or telework) for over three decades.\(^8\)\(^9\) Even so, there is still a shortage of information regarding the best approaches for companies to follow when transitioning to a virtual workforce and what obstacles and drawbacks they will encounter. To date, research has largely focused on isolated cases in which individuals or a limited number of teams or functions became virtual workers. There is also a limited understanding of the role that remote workers’ characteristics play an important role in the success, or failure, of virtual work.\(^10\)

The purpose of this article is to fill these gaps by understanding the process of transition of workers to a virtual environment by presenting our Virtual Work Stage Model. This model was developed through an in-depth analysis of two companies, one is 100% virtualized and the other is 70% virtualized. Our case study approach (which is described in the Appendix) places the individual front and center in our analysis and in the development of our model. The structure of the model mirrors the three readiness challenges faced by an individual confronting virtual work relationships: mental readiness, technology readiness, and relationship readiness. An organization seeking to build a virtual workforce must have a complete understanding of these readiness challenges and be prepared to manage employee relationships within the context they provide.

### Mental Readiness

An employee must be mentally ready before moving entirely to a virtual work environment.

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Challenges associated with working at home include, for example, the need to balance both personal and work activities, and the task of managing non-work-related sources of stress while working. The high degree of job autonomy makes it challenging for many virtual workers to psychologically control the conflicts between their job and their private lives. A lack of psychological control over one's job causes employees to experience lower job connectedness and job satisfaction, as well as increased disengagement and decreased emotional stability.

Virtual workers sometimes suffer from “technostress” due to their high exposure to technologies, which may result in work overload, invasion of privacy, and role ambiguity. Remote employees must also understand the discontinuities that threaten the cohesion of work, such as physical location, time zones, national or professional culture and organizational affiliation.

**Technology Readiness**

To enable remote and in-office employees to work closely together, both types of employees require support from various kinds of communication and collaboration technology. Advanced communication and collaboration skills can enhance working relationships, with the most important skills for virtual workers being using communication media effectively, working efficiently with computers and digital media, and having the ability to quickly identify and use relevant information. Some researchers have suggested that all employees, whether virtual or in-office, need to acquire a virtual competence, which includes a high degree of computer literacy.

While providing appropriate communication and collaboration technologies is important, the temporal separation between team members due to difference in time zones can be a significant inhibitor of communication frequency in a virtual team, and can hence also diminish team performance.

**Relationship Readiness**

The challenge of relationship readiness for virtual workers involves the difficulty of forming a common identity with team members in a way that facilitates trust, and thus allows the team to perform highly complex tasks as efficiently and effectively as they would in a traditional office environment.

Less direct contact with co-workers and leaders also presents challenges for virtual workers because their status vis-à-vis other employees (whether virtual or in-office) may be unclear, and leaders' expectations of them...
Three Stages to a Virtual Workforce

may be more ambiguous. Additionally, remote workers need to recognize that fulfilling their own tasks is highly interdependent with the work of others. Providing virtual team members with the psychological experience of "being there" by means of immersive technologies such as videoconferencing is a necessary component of establishing successful workplace relationships.

Case Study Companies

Management teams at two companies—Trello, Inc. and Buffer, Inc.—shared their experiences and lessons learned on addressing mental, technology and relationship readiness when building a virtual workforce.

Trello

Trello, Inc. was incorporated in July 2014, with Michael Pryor as its CEO. Its product is a software collaboration tool that provides a visual way to easily manage and organize projects. Trello is used by approximately 25 million people worldwide, many of them virtual workers. In early 2017, Trello was acquired by Atlassian, a provider of software development and collaboration tools, with Pryor remaining as Trello's CEO. As of late 2018 about 70% of Trello's approximately 100 employees were working remotely from their homes or from co-working spaces around the globe.

Perhaps surprisingly, Trello, as one of the world's leading remote employee companies, also has a traditional headquarters office in New York City, where the remaining employees work. Michael Pryor told us that "In a perfect world, I would have everyone come to the same place... we'd all be together." These words sum up his overarching feeling about the location of his employees, but the necessity of employing remote workers reflects the real world environment of the IT industry.

Because Trello's product is used by remote teams globally, the company has sought to understand the evolving needs of remote teams and is continually trying to solve (some of) the problems of a dispersed workforce. Originally, all of Trello's employees were co-located in the same office, and the decision to also employ remote workers was informed by Trello's significant interactions with the remote working community that was using its product.

Pryor acknowledges that having remote employees is "better for both the company and for the employees." Employees appreciate working for a company that isn't in the same geographic location because it shortens the daily commute and eliminates the costs of relocating. According to Pryor, Trello enjoys the advantages of both "easier and more talented recruiting of an international workforce" and higher employee engagement from remote workers. The latter is evidence that Trello manages its remote workers well. To manage the current mix of remote and in-office employees, Pryor says that Trello must pay significant attention to mitigating the "challenges to remote working, ... [where] it's harder to create a culture and relationships with remote workers. It can be lonely not working next to other people. It can be more difficult to create a clear distinction between work time and personal time." Brian Schmidt, Trello's chief of staff, adds that "getting better at this is something that challenges us every day."

As is the case for most companies that create a mix of in-office and remote employees, Trello's transformation was driven by its need to hire highly qualified professionals—remote employees were seen as the solution to this challenge. "We needed to embrace remote talent to fuel our growth trajectory," says Pryor. Managing and building a culture that encompasses all employees, regardless of their location, is an important focus for the company's leadership. Trello has published multiple thought-leadership pieces based on the lessons learned from building working with and embracing a remote workforce.

Buffer

Buffer Inc. provides software which is used by over 7 million people to easily manage scheduling and to post messages across different social networks. All of Buffer's 80 employees (mostly millennials) work remotely in a distributed team spread over 50 cities worldwide. According to

30 The Appendix contains a detailed description of the case study methodology we used.
Virtually Working as a Core Company Value

Buffer’s internal surveys, job satisfaction among its workforce is very high, with more than 80% of employees happily staying for over 5 years.

Because of the way the product was developed in 2010, the company was originally built on an entirely virtual basis. Later, however, Buffer switched to a mixed model of having 50% in a more traditional brick-and-mortar location and structure with its own office space in San Francisco (with the remaining 50% remote), before reverting again to a 100% remote workforce. Buffer’s unique history provides it with insights and extensive experience concerning an in-office environment, virtual environment, and transitioning between the two.

For Buffer, virtual working constitutes a core company value, as it strives to create advantages in terms of employee acquisition and satisfaction, professional development, and cost savings. At the operational level, virtual working removes the challenges arising from variations in location and time. Buffer’s marketing materials proclaim that one of the many benefits of a 100% virtual workforce is that as: “... a fully distributed team, ... we’ll be fixing bugs and replying to your questions from around the world!” Buffer, has shared its perspectives on remote working in several reports and white papers, and in 2018 published the inaugural edition of its “State of Remote Work” report.

The profiles of the two case companies are shown in Table 1.

Virtual Work Stage Model

Building a virtual workforce is one solution to solving multiple workplace challenges, including attracting hard-to-find talent. However, the process of building a virtual workforce, which can involve hiring new remote employees or transitioning an existing team or team members to virtual working, requires careful planning and execution.

It is easy to lose sight of the biases and experiences that are ingrained in employees who have spent their entire careers in the confines of a physical office structure. Inherently, an office environment is much more than a physical space in which to work. Office structures and protocols determine an employee’s schedule, modes of communication, and time outside of work. With virtual working, employees have more flexibility in these areas, but also have the responsibility for managing them while delivering productivity at

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31 From data available on the companies’ websites and blogs, as well as on fortune.com, techcrunch.com and www.onlinegip.com.

or above that of in-office workers. Unfortunately, many new virtual workers don't receive enough guidance or support to help them deal with these challenges. Moreover, their in-office colleagues and managers must also be prepared for the changes that a virtual workforce brings.\footnote{Rockmann, K. W. and Pratt, M. G. “Contagious Offsite Work and the Lonely Office: The Unintended Consequences of Distributed Work,” \textit{Academy of Management Discoveries} (1:2), January 2015, pp. 150-164.}
Organizations should follow a three-stage approach to developing successful remote teams. We have encapsulated these three stages in our Virtual Work Stage Model (see Figure 1). Drawing from real-world cases, this model outlines realistic goals for mental readiness, technology readiness and relationship readiness, in addition to the actionable management steps needed to achieve these goals.

Stage 1: Preparation
The four actions necessary during the preparation stage of the model are described below. These actions are related to achieving mental readiness.

1. Hire/identify people with the right skills and attributes. Senior executives at both Buffer and Trello provided specific examples of how they obtain top talent for their remote workforces. For example, when hiring, Buffer uses virtual communication as part of the hiring process to test potential employees' proficiency in communication media and to demonstrate the company's reliance on being agile in a remote working environment. This approach also gives prospective employees a sense of what it would be like if they were to join the company. The interview process emphasizes the importance of the "soft" communication skills that new remote workers will need, rather than "hard" technical skills. Other skills, such as the ability to quickly identify and use relevant information and work autonomously can be tested to only a limited extent in an interview. Nonetheless, difficult-to-assess skills are closely monitored when individuals commence their employment, with a view toward training them as required.

   Executives at both case companies emphasized repeatedly that remote working is not suitable for everyone. The increased flexibility that remote workers have raises several challenges in their daily work routines, including the lack of face-to-face interaction with colleagues and customers and the absence of fixed working hours interspersed with lunch and coffee breaks. Without these traditional structures and interactions to rely on, virtual workers must have a high degree of emotional stability and be comfortable with uncertainty. One remote worker mentioned that, when interviewing potential employees, she pays particular attention to making sure that individuals have a wide variety of non-job-related interests. Another reinforced this view and suggested that:

   "Without separate interests, I think it’s harder to make use of the advantages that come with full-time remote work, primarily a more flexible time schedule, in a way that one would feel really great about the transition from a traditional office environment to a remote setting."

2. Increase awareness of change in work situation. One director at Buffer, a company that transitioned from a remote setting to a mixed virtual/office setting and back to a 100% remote setting, told us there were people who joined the company during the "office phase" who "weren’t used to working remotely." To ease the transition to remote working, managers should explain the upcoming changes to soon-to-be virtual employees and ensure they understand the vast differences in communication, technology, and self-discipline between traditional office and remote environments. During these face-to-face discussions, managers should set the expectations in these areas both for employees who will be virtual and for those who will remain office-based. It is important that new employees understand the different dynamics a virtual workplace presents in comparison to what many of them may have been used to in a more traditional office environment.

3. Provide training in virtual presence, time management, and social interactions. A significant difference between working in an office and working remotely is related to "virtual intelligence," which affects presence, scheduling, and communications. Both Buffer and Trello agree that communication must shift from primarily in-person to online. Obviously, these online exchanges relate directly to work, but interestingly, they also include social discussions. Buffer's management team stresses that moving social exchanges online is critical for ensuring there is no "inequality between people in the office and [those] working virtually."

   Regular nine-to-five office hours, with scheduled coffee and lunch breaks, helps employees assign set periods of their working time to tasks. Remote workers, however, don't necessarily have set working hours, so they need...
time management skills to prevent them working on projects during their leisure time. Otherwise there will be an overlap between their working and leisure time, which can lead to increased workload and work stress. To help remote employees delimit their work and leisure time, Trello mandates that someone working from home must have a separate room (not a bedroom) with a door. During the preparation stage, organizations must provide time management training sessions and develop remote working policies before employees transition to become virtual workers.

4. Provide training on how to maintain availability. Without being able to walk across the room or down the hall to physically see a virtual worker, it is important that those in different locations have a way of knowing if remote workers are available. At Buffer, for example, employees follow a number of Slack (a cloud-based team collaboration tool) best practices in order to establish common usage behavior. These aligned practices ensure the team utilizes the functionality of the tool whilst not only respecting each individuals' downtime but also providing 24-hour customer support across multiple time zones.

One remote worker emphasized that availability was a key requirement of working remotely, but that “being available is defined pretty subjectively.” As such, this individual chose to adjust his lifestyle to ensure that he is available during the hours of operation at his company’s headquarters which is two hours earlier than his home location. A clear policy on how employees should maintain availability when not in the office ensures they are connected to the rest of the team and enhances trust. The key is that everyone knows the policy and follows it. To maintain availability, some executives hold daily “virtual office hours,” (time periods when they are reachable by employees regardless of their physical location), which is appreciated by their workers and doesn't distract from the executives' own daily work.

In summary, Stage 1 of the model focuses on ensuring mental readiness, a lack of which has been the downfall of many companies that have not succeeded in building a virtual workforce. As illustrated by the Trello and Buffer cases, ensuring mental readiness reduces conflicts between work and personal life through selecting the right people and helping them to know what is ahead, leading to more job satisfaction and higher retention rates.

Stage 2: Implementation

There are five management actions during Stage 2 (implementation) of the Virtual Work Stage Model. The aim of these actions is to ensure technology readiness. The first two are mandatory; the last three are optional.

1. Provide the technical setup for virtual workers. Despite all the advances in digital technologies, one of the greatest challenges in building a virtual workforce is still technology reliability. Technology problems can significantly derail productivity and severely impact the motivation and stress level of remote workers. Common problems are slow (or even no) Internet access or the lack of pre-installed software critical for remote employees’ day-to-day work. In these situations, time differences between remote workers will make it much harder to produce high-quality work.

   Just as they do for employees in regular office settings, companies have to take responsibility for the technical setup of their virtual employees. This requires companies to not only provide remote employees with hardware loaded with all the requisite pre-installed software, but also to provide an online resources' guide or engage with the relevant team(s) that can guide remote workers through setup, troubleshooting, etc. Moreover, companies need to decide during this stage whether to locate the administration of the technology infrastructure at headquarters or to assign this responsibility to each remote employee. They must also develop virtual working IT usage policies that address issues like security clearance for virtual workers.

2. Provide virtual workers with tool training. In addition to providing the technical setup for remote workers, companies must also ensure that virtual employees are prepared for the new technology-dependent way of working. Many of the technology-based tools that will be used by remote workers are different from those used in regular office settings. Virtual workers therefore need training on the communication and productivity tools they will use to keep them connected and productive. Typical
communication tools are Slack, Google Hangouts and Skype for Business; file-sharing tools include Drive and Dropbox; and Zapier is an example of a productivity tool. One manager of remote workers told us that if a process needed be done more than three times, it was automated using Zapier or other similar tools. These automated processes are then shared with the entire remote team, so everyone benefits. However, to ensure a high level of productivity, it is critical that all virtual workers receive training on how to make the best use of the tools.

3. Integrate mixed virtual/office teams. This action, and the next two are only possible if the company has at least one employee who is already working virtually. Together, these three actions ensure that an in-office employee who will soon become a remote worker gains virtual working experience. This first action provides an opportunity for such an individual to work in a hybrid in-office/virtual team, where some team members (including the individual) work in a traditional office environment while others are based elsewhere. Remote employees in the same city, for example, may regularly meet at co-working spaces.

4. Provide mentoring by an experienced virtual worker. When in-office employees encounter a difficult situation, they can usually walk to a co-worker’s desk and talk through the problem with a view toward obtaining meaningful feedback. Virtual workers are unable to do this. Therefore, companies must provide a means for connecting a virtual employee with someone who has prior experience working remotely, or is currently doing so, who can provide the support required. Buffer addresses this problem through mentoring. All new virtual workers are assigned three mentors, each of whom provides mentoring/guidance in one of the three following areas: leadership, job role, and corporate culture.

5. Provide opportunities for in-office employees to work virtually. Empathy can form a foundation of trust between employees, and one way the individuals can build empathy is to put themselves in another person’s position. One remote worker described a program in which his former employer mandated a week of remote work for everyone in the company. This program provided in-office employees with exceptional insights into remote working and gave them first-hand experience on the pros and cons of the daily work style of virtual workers. A higher level of understanding from in-office workers can assist in making virtual workers feel more connected.

Stage 3: Virtualization

There are three management actions at the virtualization stage of the Virtual Work Stage Model to ensure relationship readiness.

1. Arrange regular face-to-face meetings. Face-to-face meetings between virtual team members help to develop relationships and trust. All interviewees echoed the need for team members to meet face-to-face and also with the wider organization. To achieve both of these aims, the company should arrange for remote workers to visit other locations on a regular basis. Without such visits there is a danger that one remote worker expressed as “[I have] strong relationships with people who [I’ve] worked with before, but don’t know the new hires very well.” During these visits, virtual employees should also meet with people outside of their immediate team so they can maintain connections with other teams and with the broader company. Even when employers specify the frequency of visits to headquarters, it’s common for there to be long lapses of time between physical visits. To ensure some regularity of face-to-face interactions, both Trello and Buffer host all-staff in-person conferences annually to bring everyone together. Despite the cost, the respective leadership teams are strong believers in the benefits of this investment.

2. Establish virtual trust. Everyone we interviewed at Trello and Buffer, whether office-based or working remotely, stressed the importance of trust in virtual working. Buffer uses a values-based approach to building trust. This approach employs four values to help employees engender appropriate expectations about the actions of their colleagues; namely, —default to transparency, communicate with clarity, choose positivity, and show gratitude. Establishing strong, unifying values can serve as a foundation for trust. Buffer emphasizes that not only does it want to establish the output expected of their virtual teams, but, just as importantly, it seeks to develop how the teams produce their outputs—i.e., they want their teams to create a fun environment.
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Two examples of how Buffer tries to accomplish this are “impromptu hours” and “pair calls.” Impromptu hours are the remote equivalent of “on the spot” conversations. These scheduled meetings are a way for remote team members to relax, share a laugh or story, and detach from their core roles. If topics are proposed at all, they are very broad and informal. Pair calls are slightly more formal and structured, enabling different people in the company to meet others with whom they may not normally interact.

Of particular importance at both Trello and Buffer is their focus on operations to optimize productivity and socialization, since they seek to integrate, but not equate, their workers. Management at both companies repeatedly claimed that the social ties among virtual co-workers are stronger because their casual conversations are deeper. Interestingly, this observation contradicts the (often) prevailing notion that the focus of virtual teams is on transactional activities, with little attention given to relationships. For example, Buffer’s employees share information from their wearables (e.g., smart watches) and thereby expose their personal sensitivities in ways that are much more difficult in face-to-face communication.

3. Measure performance of virtual workers. Measurement of virtual workers includes both employee performance and employee satisfaction. Furthermore, measures of productivity, proactivity, customer satisfaction, and operational costs can be relevant, depending on the nature of the company. While most measurements focus on cost and performance, it is also important to evaluate employee satisfaction.

Measuring the performance of virtual workers remains at an early stage of development, even in forward-looking companies like Trello. There is a need to follow up regularly with individual team members and to encourage smaller teams to support each other. Companies should also be prepared to measure performance as a means of uncovering problems. In the spirit of wanting all virtual workers to meet expectations, or at least be on a path toward achieving that end, Buffer, for example, uses a system of multiple virtual meetings for anyone who is not performing in line with expectations, especially in the area of trust.

Evolving management practices across multiple corporate functions (IT, HR, operations, etc.) to incorporate virtual working is disruptive, and the challenges should not be underestimated or entrusted to anyone but C-level leaders. While managers can organize employees and make decisions about staff, the role of leaders is to provide the vision and align individuals to it. Leaders should therefore define the performance measures for virtual workers and regularly receive updates on the measures and on progress overall.

Realigning Perceptions of Virtual Working Relationships with Actual Experiences

In companies looking to transition to a virtual workforce management must understand the key attributes of relationships with virtual workers. Understanding these attributes at a strategic level is key to the decision of whether to proceed or not with investments to create a virtual team environment. However, we have identified significant misperceptions about these relationship attributes (that appear during Stage 3, the final virtualization stage of the Virtual Work Stage Model, which is where relationship readiness is built). We summarize these misperceptions in Table 2 and then, for each relationship attribute, provide insights based on our interviews with leaders at Buffer and Trello.

Speed of Execution

Two members of Trello’s management team clarified whether speed of execution was hindered by the remote nature of the company’s workforce. They completely disagreed that speed of execution, or quality, were adversely impacted by virtual working, and suggested that the opposite may often be true. They agreed that meetings can be important, but that one of the critical differences with meetings involving virtual employees is that remote workers are better prepared and more thoughtful during the meetings. One Trello executive emphasized that meetings shouldn't be perceived as discrete events, but as a continuum. For example, she suggested that conventional in-person whiteboarding sessions can lead to suboptimal outcomes because little context is provided to
participants, documentation of sessions is nonexistent, and follow-ups on key actions aren’t identified and managed. At Trello, context is easily accessed prior to meeting via an online agenda and the associated notes, and the output of a whiteboard-type session is posted on an online shared project management tool and subsequently managed.

In summary, while in-person meetings are convenient, this convenience often leads to in-office workers adopting a more relaxed approach to meetings, which may lead to output that doesn’t achieve anything. In contrast, remote workers must typically consider time zone differences and their colleagues’ other commitments, so they tend to prepare well for any online meetings, which ensures the meetings are meaningful and beneficial.

Output Maximization

The management teams at Trello and Buffer had minimal concerns about work not getting done by virtual employees. In fact, they experienced many remote workers going above and beyond what was expected by senior management. However, they did have concerns about remote workers, especially in the area of what Michael Pryor has coined “the social nature of remote work.” A traditional in-office employee typically has a clear separation between work and non-work time and space; for a remote employee, this delineation may not be quite as clear.

Team Communication

In an office, social interactions occur very easily and with little effort. With a virtual workforce, however, individuals and their

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Perception</th>
<th>Reality</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Speed of execution</td>
<td>Remote worker will be unable to perform at same speed as in-office employee</td>
<td>Speed often quicker than in-office employee if optimal working environment is established</td>
<td>• Remote employees are much less burdened by unnecessary meetings • Meetings still occur but participants are often better prepared and more thoughtful • Remote employees have more time to move quickly through tasks</td>
</tr>
<tr>
<td>Output maximization</td>
<td>Less output than in-office employee</td>
<td>Often more output than in-office employee</td>
<td>• Remote employees can’t hide behind being “busy” and attending multiple in-office meetings • Their value is simply the output itself • Thus, remote workers often go above and beyond what is expected of them</td>
</tr>
<tr>
<td>Team communication</td>
<td>Lower frequency and quality</td>
<td>Equal or more effective communication</td>
<td>• Set up purposeful communication to be inclusive of all employees</td>
</tr>
<tr>
<td>Performance management</td>
<td>Management needs to closely examine remote workers</td>
<td>Management doesn’t need to invest a huge amount of time in monitoring</td>
<td>• Monitoring output is still important, but the output of remote workers is clearly visible</td>
</tr>
<tr>
<td>Cost-cutting</td>
<td>Company will reduce costs by going (at least partly) virtual</td>
<td>Extra costs for IT might equal savings from reduced office space</td>
<td>• The IT connection necessary to enable remote work (and the virtual worker) is a cost driver • Going virtual doesn’t reduce salary costs</td>
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Table 2: Summary of Misperceptions about Key Virtual Work Attributes
organizations have to work hard to foster social interactions, which may be casual (e.g., going to the local coffee shop or regularly heading to the gym) or more formal (e.g., working from a co-working space). If individuals and companies aren't mindful of this social component, the mental health of an individual can be affected.

The management team at Trello described two subtle, but interesting, methods of enabling greater human connection in its remote teams. The first is what Trello calls “destroying one-to-many meeting location dynamics.” Even if only one meeting participant is remote, Trello encourages all participants (including in-office employees) to dial in to the meeting as if they were all remote. Doing this ensures that everyone feels they are all equal. In fact, when we interviewed the Trello team in the company’s New York office we started in a room with some participants dialing in; however, we quickly changed to a virtual meeting with all individuals dialing in. This created an equal playing field for all attendees and was described by Trello as showing “empathy” for remote colleagues.

Trello describes the second method as “capturing the canonical watercooler conversations.” Off-topic or “watercooler” conversations occur regularly in an office environment and are often an important source of new ideas. One misconception is that if people are chatting they’re not working. At a deeper level, though, these conversations help develop relationships. In an office, such interactions are unplanned and “just happen,” but in a virtual environment they need to be encouraged and made intentional. Trello sets out to capture the equivalent of “watercooler” conversations among its remote teams. Notes capturing the essence of these conversations highlight the more casual elements of the conversation and are made available via an online shared communication tool. Again, the intention is to show empathy to all employees and ensure that no one feels they are missing out on details that may have an impact on their interactions and decisions.

Performance Management

Trello’s CEO, Michael Pryor, directly addressed one of the biggest inhibitors preventing companies from employing remote workers. Many organizations are gripped by fear expressed as: “How do we know that remote workers are doing what we are paying them to do?” They fear that the freedom remote employees have means the company wouldn’t know whether Bob or Mary were mowing the lawn or mining cryptocurrency. This line of argument suggests that more freedom equals less work.

Pryor posits the opposite. He challenges this argument by suggesting that “it can be easier to be unproductive in the office and maintain the mirage of working hard, with physical presence tricking you into thinking they’re working hard.” When people are working remotely, they have nothing except their output to prove they’re working. In fact, most remote workers go to extra lengths to deliver high-quality output; they can’t use the excuse of having been in multiple in-person meetings for their lack of output.

This doesn’t mean, however, that managers shouldn’t monitor and measure remote employees. Trello and Buffer managers we spoke with highlighted the importance of establishing a regular cadence in ensuring clearly defined goals are regularly achieved.

Cost-cutting

Trello’s Michael Pryor rejects the notion that building a fully or partial virtual workforce significantly reduces costs. He says that a company has to spend much more on IT in order to create a solid “connection” for its virtual workers than is required when every employee is in the same building and has access to the office intranet. Each remote worker will also incur costs for a DSL connection with unlimited data, and for an additional backup system over her or his local mobile network or (even) mobile networks. There will also be costs for software licenses for each remote worker. A (prudent) virtual worker will take all these costs into account when taking up a position and will either directly (through cost transfer) or indirectly (through a higher salary) ensure that the employer pays for them.

Recommendations for Managers

Based on the challenges faced by Buffer and Trello, and the solutions they used to overcome them, we offer five recommendations for managers seeking to build a virtual workforce:
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Table 3: Recommendations for Transitioning a Workforce through the Virtual Work Stage Model

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Solution</th>
<th>Virtual Work Stage Model</th>
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<tbody>
<tr>
<td>Respect and protect virtual workers’ privacy</td>
<td>Virtual work can become all-consuming as individuals struggle to delimit their personal and professional lives</td>
<td>Identify and highlight opportunities for virtual workers to separate their personal lives from their professional lives and ensure this is respected</td>
</tr>
<tr>
<td>Optimize social activity, not just productivity</td>
<td>It is easy for remote employees to become isolated</td>
<td>First, ensure that employees hired to work virtually are well-suited personally to such conditions; second, once hired, build in opportunities to socialize in every interaction</td>
</tr>
<tr>
<td>Remember that virtual workers are real people</td>
<td>Virtual workers may have a radically different work day structure than their in-office colleagues</td>
<td>Ensure that virtual workers have access to everything they require, by law or otherwise, at any time of day—e.g., workers’ compensation insurance, IT related systems, etc.</td>
</tr>
<tr>
<td>Match communication channel to the message</td>
<td>Much can get “lost in translation” in a virtual environment</td>
<td>Define a communication policy—e.g., videoconferencing is best for replacing face-to-face talks; non-urgent requests are best suited to email or instant messaging applications; etc.</td>
</tr>
<tr>
<td>Establish trust by asking teams to work on increasingly challenging tasks</td>
<td>Without having everyday in-office interactions, both the employee and employer will need to take deliberate actions to build trust</td>
<td>Build trust via activities (real world or simulated) that provide opportunities for each participant to learn about each other, how they operate and/or what their working preferences are</td>
</tr>
</tbody>
</table>

(1) Respect and protect virtual worker’s privacy; (2) Establish trust by deliberately challenging teams; (3) Optimize social activity, not just productivity; (4) Remember that virtual workers are real people; and (5) Match communication channels to the message. These recommendations are summarized in Table 3 and described below. Each is important for successfully transitioning a company’s workforce through the Virtual Work Stage Model.

1. Respect and protect virtual workers’ privacy

Both case study companies found that, rather than being “hidden” when working on projects, their virtual employees’ working environments became more visible to their colleagues and managers. In particular, when and where they performed tasks was clearly visible. Virtual workers frequently struggle to delimit the boundaries between their professional and private lives, which can lead to other team members and managers gaining too much (unnecessary) insight into a remote colleague’s
Three Stages to a Virtual Workforce

life and living situation. Hence, managers and prospective virtual employees should agree in advance on which aspects of an individual’s life require particular privacy protections.

2. Optimize social activity, not just productivity

Trello employees typically consider their remote colleagues to be friends. One employee explained, “We build social conversations into our weekly meetings and also have a monthly meeting that is purely social.” Both case companies found that the primarily virtual interactions between individuals not only fostered healthy working relationships, but also friendships. Managers of virtual teams therefore should do two things. First, they should ensure that time is set aside for social communication purposes. Second, they should focus on hiring people with a wide variety of non-work-related interests, because these people will likely contribute lively discussions to the social conversations of virtual teams. In turn, this will create opportunities for strong social connections to be developed at a deeper level than standard corporate relationships.

3. Remember that virtual workers are real people

Companies’ duty of care to their virtual employees is more challenging than that for in-office employees. The nature of remote work means that professional tasks become intertwined with the employee’s life throughout the day. Companies with virtual workforces must recognize that their remote employees may be engaged in work at any time during the day or night because of their own personal circumstances, work preferences, or time zone differences. A company must not only ensure that its virtual employees have the technology necessary for enabling this but must also have policies in place to ensure that a remote employee isn’t working excessive hours.

4. Match communication channel to the message

To effectively transfer complex, important or private information, virtual workers often need to observe each other’s body language, in order to hear and see what colleagues are trying to communicate. Based on our interviews, we found that communication is most effective in virtual teams if there is a policy specifying which channel should be used for different types of communication. For example, videoconferencing is the best replacement for face-to-face meetings, and non-urgent requests are best suited to email or instant messaging applications. A policy is needed, because employees instinctively default to their preferred method of communication, which may not be the most effective for the particular message and could lead to conflict or misunderstandings among virtual and in-office team members.

5. Establish trust by asking teams to work on increasingly challenging tasks

Trust plays a crucial role in enabling a virtual work environment. Trello and Buffer demonstrated that trust is an extremely nuanced phenomenon. Establishing trust takes a significant amount of time, but trust can be lost in milliseconds. An effective way to build trust among virtual teams is to start with simple, straightforward projects, because trust can be built in executing simple tasks well. Once virtual teams have performed simple tasks well, they can then be challenged with more complicated projects. These activities and projects should be designed to provide opportunities for team members to learn about each other, how they operate and their working preferences. It is important that the activities are not perceived as monotonous or dull, and they should also allow team members to have fun in the overall process.

Concluding Comments

Companies are constantly searching for ways to survive and thrive in the face of competition, and for many, their long-term survival depends on talented employees. Finding these employees remains one of the greatest leadership and management challenges, and employing virtual workers is one way of addressing this challenge. Transitioning to a virtual workforce, however, requires more than simply changing the location of employees. A successful transition requires overcoming many challenges, for both virtual and traditional employees. Our research shows that a critical reason why companies fail to transition to a virtual environment is that they do not sufficiently account for their employees’ mental,
technology and relationship capacities for virtual working.

Based on insights gained from our two case study companies, we developed the Virtual Work Stage Model, which provides a framework for transitioning from an office environment to the virtual world. We described the three stages of the model—preparation, implementation and virtualization—and provided detailed actions for ensuring employees' mental, technology, and relationship readiness.

Our research shows that reality is counterintuitive to preconceived differences between virtual and traditional employees in the areas of execution speed, output, communication, performance management and costs.

We also offer recommendations for managers in companies seeking to transition all or some of their workforce to a virtual environment. These recommendations concern privacy, trust, and the human side of virtual employees, and are based on the experiences of the two case study companies, both of which are pioneers of virtual working.

Although our Virtual Work Stage Model is based on the lessons learned at the two case companies, we are confident that our model, and its related activities, can be generalized for use by many other companies of almost any size, particularly in the technology sector. This model will also be relevant to any IT-supported work typically performed by white-collar workers.

We believe that more and more companies will gradually transition partly or fully to a virtual workforce, which separates individuals and their managers by time and location. The Virtual Work Stage Model described in this article will enable managers to achieve better business outcomes by building closer relationships with their virtual employees.

Appendix: Research Methodology

The key objective of our research was to develop a stage model that can help companies transition to a virtual workforce and overcome the challenges of doing so. To achieve this objective, we used a multiple case study approach, which is well suited for a phenomenon that cannot be studied outside the context in which it occurs. To ensure that our results were reliable, we used a positivist case approach, which included protocols for collecting interview and secondary data, recording times and dates, taking meeting minutes and preparing notes describing the procedures used.\textsuperscript{35,36}

We actively sought out companies that successfully built virtual workforces. While there are many examples of companies whose virtualization strategies have failed (notably Yahoo), the number of successful examples is small. We chose to study Trello and Buffer, two pioneers of virtual working, because their shift to a virtual model had resulted in high employee satisfaction ratings and low turnover rates.\textsuperscript{37}

Before contacting representatives of both companies by email, we developed a questionnaire with four sections. The first contained general questions about the company and its history of employing virtual workers. The remaining sections were designed to provide input for developing the Virtual Work Stage Model in the areas of mental, technology, and relationship readiness, respectively. The questions in these sections were based on the challenges of transitioning to a virtual workforce identified in prior research. We provided study participants with a summary of these challenges in the research background of our work. During the interviews we explained these previously identified challenges and asked if the interviewees had experienced any of them and, if so, how they had responded.

We interviewed three members of the Buffer management team and six members of the Trello management team (including the co-founder and CEO, Michael Pryor). The interview sessions with the Buffer management team were conducted by means of videoconferences that included all the authors as well as three Buffer representatives. We set up the interview with the Trello management team as mixed face-to-face and virtual sessions, where two authors went to Trello’s headquarters and met the management


team face-to-face and two authors participated virtually via a videoconferencing session.

After developing our Virtual Work Stage Model, we went back to both companies to ensure that the model, and its related activities, were consistent with their ideas and viewpoints.

To ensure the validity of our results, we applied several validity criteria. Table 4 shows the tactics we used to test validity during the research design, data collection, and data analysis phases of our study. Because our primary goal was to identify solutions for the challenges identified in prior research, we used as many data sources as possible without jeopardizing the context criteria of the cases. In addition to expert interviews and prior literature, we referred to official documents provided by the case companies.

### About the Authors

**Andreas Eckhardt**

Andreas Eckhardt (andreas.eckhardt@ggs.de) is a professor at the German Graduate School of Management and Law (GGS) in Heilbronn, where he teaches and conducts research on the impact of digital transformation on organizations. His work has been published in two books and more than 80 articles in conference proceedings and journals, including *Journal of Information Technology, Journal of Strategic Information Systems, European Journal of Information Systems* and *MIS Quarterly Executive*. He is currently an associate editor for Information Systems Journal

**Anthony Giordano**

Anthony Giordano (anthony@monad.world) is Founder and Growth Marketing Consultant at Monad and Head of Growth at ParkYou!, which aims to reduce the billions of dollars of lost productivity caused by searching for street parking. He has a bachelor’s degree (marketing and cognitive science) from Villanova University, and an Executive MBA from IE Business School & Brown University (the "Key Reflection Project" of the EMBA led to this article). Previously, he led MEC’s (a media agency) business development across North America and launched its innovation practice in the Middle East and North Africa. His research has been presented at the International Conference on Information Systems, the Society for Information Management’s SIM Connect Live and the Forbes Under 30 Summit.

**Florian Endter**

Florian Endter (florian.endter@enmacc.de) is General Counsel at Enmacc, Europe’s fastest growing OTC energy trading platform. He also runs his own law firm with a focus on business law, mediation and arbitration. Florian has a Ph.D. from Ludwig Maximilian University of Munich, an M.Jur. from the University of Oxford and an Executive MBA from IE Business School & Brown University (the "Key Reflection Project" of the EMBA led to this article). Previously, he was a researcher at the Max Planck Institute for Innovation and Competition, a project manager at McKinsey & Company and legal counsel at two

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**Table 4: Criteria for Testing the Validity of Findings**

<table>
<thead>
<tr>
<th>Test</th>
<th>Tactic Applied</th>
<th>Phase of Research in Which Tactic Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct validity</td>
<td>Use of two data sources:</td>
<td>Data collection</td>
</tr>
<tr>
<td></td>
<td>● Expert interviews</td>
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<tr>
<td></td>
<td>● Secondary data</td>
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<tr>
<td>Internal validity</td>
<td>● Labeling based on literature of virtual work</td>
<td>Data analysis</td>
</tr>
<tr>
<td></td>
<td>● Independent cross-check by research team</td>
<td></td>
</tr>
<tr>
<td>External validity</td>
<td>Strong reference to related research</td>
<td>Research design</td>
</tr>
<tr>
<td>Reliability</td>
<td>Use of protocols</td>
<td>Data collection</td>
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</tbody>
</table>

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38 The authors are very grateful in particular to Hailley Griffis from Buffer as well as Michael Pryor and Brian Schmidt from Trello/Atlassian for sharing their insights.
Paul Somers

Paul Somers (paul@pecuniaresearch.com) is principal and founder of Pecunia Research, which seeks to transform Australia's pension fund market. He is a qualified accountant (ICAA) and has a finance degree from Sydney University and an Executive MBA from IE Business School & Brown University (the "Key Reflection Project" of the EMBA led to this article). Paul has extensive international experience in management consulting and digital technologies across the Asia-Pacific region and North America, having held leadership positions at PwC Consulting, Groupon, and most recently Google, where he spent more than five years. His qualifications and work experience have enabled him to advise more than 100 early stage businesses in multiple areas, including virtual workforces.