Virtual Workplaces: Technological Functions Can Address Common Challenges

Virtual work is becoming more prevalent and is changing the workplace; employees can work “anytime, anywhere, in real space or in cyberspace” on interdependent tasks (Cascio, 1998; Geller, 2014). In 1997, roughly 11 million U.S. workers telecommuted (Jackson, 1997), whereas in 2012 approximately 64 million workers telecommuted according to Global Workplace Analytics (2013).

Organizations can benefit from allowing employees to work virtually. These benefits include reduced travel expenses, staffing accessibility to experts in the field, time saving, and an expanded talent pipeline (Kirkman, Gibson, & Kim, 2012). However, there can be disadvantages such as lower levels of team cohesion, reduced commitment to team goals, lower satisfaction, and a reduction in cooperative behavior.

In order to support virtual work while maintaining productivity and satisfaction, organizations are investing in new collaborative technologies and online tools. These new technologies enable employees to interact with team members around the world in a variety of capacities that more closely mirror face-to-face interactions.

In this article, we will highlight a few of the major challenges that virtual work presents, provide examples of technological attributes and tools that can address these challenges, and provide suggestions for increasing productivity when working virtually.

Challenges of Virtual Work

There is an overall consensus that managing virtual teams can be more difficult than face-to-face teams (Bell & Kozlowski, 2002; Cascio, 1998; Hoch & Kozlowski, 2014). Below are some common challenges.

1. Recognizing patterns of cultural communication. Increases in virtual work can lead to increases in opportu-
nities for members to communicate cross-culturally (Gajendran & Joshi, 2012). However, cross-cultural communication can be difficult for many reasons such as language barriers, different workplace assumptions, and different communication norms.

2. Developing cohesion among teams. When employees have less time to interact and get to know each other, it can become more difficult to develop cohesion among team members (Hoch & Kozlowski, 2014). In addition, virtual work has shown to decrease team member satisfaction (Driskel, Radke, & Salas, 2003).

3. Motivating and managing employees. Managing the performance of an individual or group can become challenging in virtual work. Frequency of communication that is necessary for leaders to build relationships with employees is critical for virtual employees. Finally, the ability to monitor performance of each team member is also restricted (Bell & Kozlowski, 2002).

4. Maintaining productivity and effectiveness. Virtual work has been shown to negatively impact the productivity and effectiveness of teams (Cramton & Webber, 2003). The nonoverlapping work times and physical distance between employees can make it difficult to coordinate work efforts (Driskel et al., 2003).

Virtual work can impede the effectiveness and productivity of teams. However, the type of technologically mediated environment can moderate this relationship. Not all communication technologies are the same; some improve team efforts while some may hinder efforts.

**Technological Attributes as Moderators**

Technologies are being increasingly designed to support virtual teamwork by allowing interactions to be more cooperative and collaborative (Ishii, Kobayashi, & Arita, 1994). The attributes and quality of the technologies can enhance computer-mediated communication and combat some of the challenges of virtual work (Driskel et al., 2003). Below we have listed some attributes of technology that can improve the communication and collaboration between virtual team members:

- **Share one’s desktop and workspace** so everyone can see the same information at the same time! Product examples include [join.me](https://join.me) and [webex](https://webex.com). Other virtual telecommunication tools like [Google Hangouts](https://hangouts.google.com) are also enabled with the ability to share one’s screen.

- **Quickly manage schedules and tasks** with others virtually. Tools that are handy for this include [Doodle](https://doodle.com) and [Trello](https://trello.com). Not only do these tools allow you to assign tasks to team members, but they provide a great format for everyone to stay on the same page with regards to shared action items and working timelines! Most workplaces also have the ability to share calendars, which provides ease of scheduling meetings by sharing real-time information on one’s availability during the workday.
Collaboratively editing documents in real-time is now possible with tools like Google Docs and Microsoft Office Online. In the past, when writing manuscripts with coauthors, documents needed to be sent over email, and it was difficult and tedious to deal with version conflicts and coordinating changes. However, many programs are now creating features where several individuals can edit the same document simultaneously. The benefits of such are that live collaboration may increase cohesion among teams by allowing members to physically work together at the same time.

Converse synchronously from anywhere in the world. Whether employees are located in New York or Hong Kong, it is much easier for them to chat with anyone, anywhere. Skype and Google Chat are both free services that allow you to sign up and have online chat conversations with colleagues. In addition, other free text options like Tango continue to emerge making it easy to stay connected!

Access and exchange resources in jointly shared locations instead of emailing documents back and forth. Today, services like Google Drive and Dropbox are paving the way for people to share information in one place and access it from anywhere (even without Internet!).

Visual presence of others is becoming more and more common for today’s workforce as many organizations now have access to virtual telecommunication tools such as GoToMeeting, Skype and Google Hangouts.

Get creative and whiteboard in real-time by leveraging online virtual whiteboards with your team members or customers. Product examples include Boardthing and RealtimeBoard, which allows you to simulate the capability of whiteboarding ideas or thoughts on cards.

These attributes may account for some of the variation and conflicting findings we see across the virtuality research. By understanding the specific advancements in technology used in virtual work, we can improve measurement and advance literature.

Practical Solutions for Adapting to Virtual Work

Although technology is changing the way we work, it cannot replace the value of face-to-face time where group members share the same physical location, see and hear one-another, receive facial indicators, and engage in comradery in person. For those I-O psychologists who find themselves working within virtual teams, below are a few key recommendations:

Open information sharing is key. When working remotely or working within virtual teams, we encourage you to remain diligent and share your knowledge and weekly progress with others. Sharing and integrating information across teams allows everyone to gain from each other’s inputs and improves team processes. To do this, make sure content is in a shared location, like Dropbox, and all team members are aware of what others are doing by using a tool such as Trello.
Be open and clear with your manager. It’s important that you are open about your goals and expectations surrounding your role, current projects, and future growth areas. Also, suggest video-based conversations to foster a stronger personal connection. By ensuring you are open and clear and physically in sight, you remain present and visible to your manager. It’s worth the time and effort, we promise!

Be mindful when scheduling meetings. If you and your team are working across various time zones, ensure you are respectful by scheduling meetings within their work hours. Try tools like Doodle that can account for time-zone differences automatically. Also, do not assume they have the proper technology access wherever they are: Be sure to ask which medium they prefer. By being considerate to others, they will be thoughtful about your schedule and needs as well.

Consider the tasking that you assign to others. As organizations globalize, and team members work at different times of the day, organizations must take into account how to allocate the time of each member but also ensure they have effective work patterns (Cummings & Haas, 2012). Ensure that you remain thoughtful about the team work tasks you are assigned or that you assign to others so that no one serves as the bottleneck for the particular task within the project timeline. If someone is 10+ hours apart from another person, ensure that whatever assignment they are doing is one that doesn’t hold up others who are working at different hours. Use the time difference in your favor!

Eliminate distractions when working virtually. Given that we find distractions all around us at work and wherever we go, it is great to be mindful of how to get the most out of your work day! It’s so easy to pick up your cell phone while on a conference call, so try suggesting video-based meetings so you have more accountability for paying attention. Other technological tools such as SelfControl can block distracting nonwork related websites as well.

Develop a tolerance for ambiguity. It’s best for managers to ensure virtual team members have a high tolerance for ambiguity. Compared to face-to-face teams who have some frequent team contact, virtual teams tend to have the most uncertainty and least visibility to their teams. Instead of trying to describe a model or diagram, use visual whiteboards such as BoardThing or Realtime Board. The addition of technology to the communication process can help avoid misunderstandings or ambiguity.

As Cascio (1998) stated it so eloquently, we will restate the same testament to I-O psychologists:

*Always look ahead; learn from the past, but don’t live in it. By embracing these emerging changes in the world of work, we in I-O psychology can lead change, not just react to it. This will be the greatest challenge of all.*

Do you have other examples of virtual collaboration tools or tips that you recom-
mend to other I-O psychologists? Please let us know what you think! Also, we always encourage tips for future issue topics (pun intended), so let us know what you’d like to read about or what is cutting edge in your world of work! Feel free to tweet at us @themodernapp or email us at the-modernapp@gmail.com.

References


