

**WHAT WE HAVE LEARNED DURING THIS PANDEMIC**

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August 19, 2020

The Covid-19 pandemic has created the need for extensive change in how we live, work, parent, get involved in recreation activities, and affiliate with others in our society. Our research and observations over the last six months, combined with discussions with experts, friends, colleagues, and strangers have been enlightening with respect to how people are responding to the pandemic and what strategies for controlling human behavior as a way to control the virus are proving to be effective while others are not--and why. We summarized what we learned below, followed by insights we gained which give us hope that collectively we can live reasonably well with some adjustments.

We start with what we have learned about work and working under Covid-19.

### Working Remotely

- Working remotely is one remedy to the problem of spreading the virus at the workplace. Removing workers from the office means that the virus will not have new hosts. The strategy is to socially distance workers from each other so that they do not contaminate each other.
- It is possible to keep some people working during a pandemic by transferring the work to a person working virtually from home. This remedy applies to people who perform work primarily through electronic devices such as a computer and telephone. Studies have shown that generally worker productivity is at the same level or higher working remotely compared to working at the office. In some cases, remote workers are spending more time working at home than they did at the office. Improvements in productivity are attributed to factors such as the absence of a commute allowing more hours for work, fewer distractions, and greater concentration on work tasks.
- Not all living spaces are equally suited for remote working. Work-related resources such as a private place to work, up-to-date computer equipment, reliable WIFI, and office furniture are unequally distributed across workers, resulting in differences in workers' ability to do their jobs with the same ease and concentration. Factors responsible for these differences seem to fall along the lines of socio-economic status, household income, economic precarity, number of household occupants, and WIFI/computer access, among other things. Also, cleavages can align to a certain extent with the distinction between exempt and non-exempt work. Workers classified as "exempt" are salaried and perform non-manual jobs whereas those classified as "non-exempt" earn hourly wages and perform lower level, manual, or production-oriented jobs. Professionals, subject matter experts, and managers are typical examples of exempt workers, and clerks, administrative assistants, frontline supervisors, manual workers, and call center operators are typical examples of non-exempt workers. Generally, exempt workers perform "white collar" work in which they exercise discretion and independent judgment, and non-exempt workers perform "pink" and "blue collar" work in which performance is closely supervised and monitored; daily work hours, breaks, and productivity are tracked for compensation purposes; and little or no discretion is involved in tasks performed. For some workers, remote working is an improvement in their ability to perform their job whereas for others, it is particularly challenging. Generally, the more structured the job

and the less support a worker has to deal with performance expectations, the more challenging remote work can be.

- Remote working pushes responsibility for providing space for people to work (“housing”) to the workers themselves, to the employers’ economic benefit. By having workers supply their own “office space,” provide their own furnishings, and pay for the utilities required to perform their job, some employers can reduce their real estate footprint and thus eliminate costs associated with developing and maintaining that excess space. Some companies offer to pay for some of workers’ expenses such as augmented WIFI, computers, and office furniture, but this benefit is not universal. This shift of responsibility from companies to workers does not seem to be acknowledged by either companies or the workers themselves. Workers, on the other hand, save commuting cost and their time.
- People work remotely in order to physically distance themselves from their coworkers to deny the virus a new “host.” Physically separating workers from each other can have physical and psychological consequences, however. Being tied to a computer screen for a number of hours in a row and for many hours total in a day can cause musculoskeletal problems over time—just like it does for all sedentary work—but remote working could be a more severe form of the problem. Without ergonomic support, workers can be at risk of multiple repetitive motion disorders and lower back pain from sitting for long periods of time at the computer in ill-fitting furniture. Cognitive fatigue is much more likely working remotely when work tasks are primarily restricted to a computer screen. At the office, screen work is interrupted by in-person meetings, casual conversations with suite-mates, and runs to the coffee machine. Back-to-back “Zoom” meetings and the like have been associated with physical and cognitive exhaustion, depressed mood, emotional detachment, and increased anxiety. Without periodic cognitive and emotional refreshment throughout the workday, these effects can set in, reducing physical and psychological health and well-being. In essence, the cadence of and variation in work behaviors performed remotely do not mirror those typically experienced during a workday at the office. This reduction in the range and variation of work activities due to remote work is not fully recognized.

Perhaps equally fatiguing is the need for workers to perform multiple roles at home in addition to “worker”, including caregiver, teacher, cook, moonlighter, and housekeeper. The sheer amount of time a person spends “working” within multiple roles extends the work day and can more than offset the time earned back with the absence of commutes. The alarming amount of fatigue and emotional distress reported by remote workers acknowledges the presence of these changes in work style and demand, and signals a need for mitigation.

- Many activities that workers enjoyed at the office are absent when working remotely, and their absence also affects workers’ physical and psychological well-being. Workers typically move around the office on a regular basis: visiting with friends and colleagues, walking to meetings, walking some distance to a bathroom or to a cafeteria and food station, walking to places for a quiet one-on-one, hand-delivering documents to others,

and simply getting in and out of a chair to change activities. Physical movement is important for several vital body systems such as cardiovascular health, endocrine secretion, gastrointestinal functioning, and musculoskeletal problems. Psychologically, workers may suffer mood disorders and depression by physical inactivity as well. A significant reduction in physical movement for remote workers could cause harm without counterbalancing activities to substitute for the activities lost by not being in an office environment. Reports of rising mental health issues among remote workers signal that less physical activity may be taking its toll.

- Social isolation day after day can have the psychological effects of depression, anxiety, melancholy, and disengagement. The social aspects of remote work do not include in-person connection and as a result, remote workers miss all of the enjoyment that comes from interpersonal intimacy and non-harassing physical touching such as hand-shaking and hugging. It is well-established that these types of experiences are very important for psychological health. With the elimination of this form of social contact, remote workers derive their social satisfaction from telephone conversations and virtual interactions via computer or other devices. However, social interactions with coworkers through devices have characteristics that make psychological connections more difficult to establish, maintain, and grow over time. Lost or spotty internet make communications more disjointed, harder to understand, and frustrating. With multiple connections at the same time, communications are sequential—one person speaks at a time—slowing down interactions and even discouraging others to join in. More importantly, connections with others are work-oriented, scheduled, and focused on the task at hand. Spontaneity is scarce for a good reason—you can't "see" if someone is free to talk. When connections with others are scheduled and laddered throughout the workday, connecting with others socially may feel more exhausting than satisfying. Imagine a day full of back-to-back meetings.
- Random and spontaneous interactions with others who are not part of a worker's immediate network are all but impossible with remote work. There is no such thing as "bumping into someone" or "sitting next to a stranger at the lunch table and striking up a conversation." Some may think it is all right to give this up in favor of more concentrated work time, but it comes at a significant hidden cost. Interacting with people outside of our social networks and acquiring new information about different subjects or perspectives are the raw material from which creativity and innovation emerges. Decades of research points to the need to introduce "out of boundary" information and thinking into our work lives in order to expand the possibilities of new approaches or solutions that lead to significant breakthroughs. We are sacrificing those opportunities through remote working. Currently there are no avenues to "just hang out" somewhere for random people to strike up a conversation. But that is what we need. A Zoom or GoToMeeting platform is completely unsuitable for such experiences.
- A parallel activity that supports the emergence of creativity and innovation is also lost through remote working. That is, time and a place for reflection. A walk through the company garden, sitting next to floor-to-ceiling windows, lying on the grass adjacent to the building, or taking some time in a "restorative space" are all activities that support

inspiration and problem-solving. The literature is clear that insight bubbles up when the mind is busy thinking about or focused on something else. What is the activity remote workers are engaged in now that opens up these possibilities? A high concentration on work tasks continuously throughout the workday makes no room (or permission) for “downtime” to stimulate such outcomes. If not working, many remote workers are busy taking care of their other responsibilities like attending to sick family members, childcare, schooling, eldercare, household chores, and perhaps working another job.

### Essential Workers at the Workplace

- Essential workers come in many forms and perform a wide variety of jobs considered “essential” to keep society functioning by showing up to work and doing their job despite the pandemic. For some workers, because of the nature of their job, they have had to change the way they do their jobs in order to protect themselves from the virus by wearing extensive PPE (doctors, nurses, healthcare workers, industrial cleaners), working behind physical barriers like Plexiglas and masking (retail and restaurant workers, clerks), and undergoing health screening before work begins and masking (manufacturing, food processing plants, construction) or simply masking and handwashing/using gloves (office workers, police, janitors, movers, cleaners, drivers, grocery workers). Some workers go back to work without any protective equipment or guidelines because it is not made available to them or they choose not to use it (some prisons, long-term care facilities, and food processing plants). When workers are considered “essential,” they must make the decision of whether to go back to work where risk of contamination with the virus is significant or stay home. Some workers are being lured back to work through financial incentives such as in Idaho where full-time workers can earn a \$1,500 bonus and part-time workers can earn a \$750 bonus to come back to work.

Staying home is possible if the employer allows workers to use their paid sick leave (if provided), any other paid leaves under FMLA (if provided and the worker is eligible), or unpaid leave (if allowed). Reasons for staying home range from the worker having co-morbidities putting the worker at greater risk of dying from the virus, a family member with co-morbidities who is at greater risk, children at home who have no childcare, or being sick with the virus and/or testing positive for the virus. In all of these cases where the worker elects to stay home, economic security can be maintained while keeping an essential worker and relatives safe *if an economic safety net is provided by the employer*. When the safety net is not provided by the employer, the essential worker has to choose between safety and economic security. Reports indicate when paid sick leave is not provided to workers, some go to work sick with the virus—either at the work site or somewhere else where health checks aren’t conducted.

- Low-income essential workers often have to work under conditions that are not safe such as shoulder-to-shoulder work processes, lack of enforcement of health protection rules, presence of asymptomatic workers infected with the virus who pass the temperature checks, use of expired or overused PPE, absence of cleaning protocols, insufficient instruction on protective behaviors, and threat of being terminated if they don’t show up.

Statistics show that low-income essential workers comprise the majority of hospitalizations and deaths, many times the rate expected given their proportion of the total working population. Sadly, members of racial and ethnic minorities many of whom are immigrants have higher rates of Covid-19 infection as well a greater number of hospitalizations and deaths due to the virus.

- Low-income essential workers who lack sick leave benefits and health insurance and choose to go to work to earn a paycheck, often do not seek medical attention because they cannot afford the expense of healthcare. This risk is heightened among undocumented workers and even some with documentation who experience discrimination despite their documentation status.
- Protections under OSHA, ADA, FMLA, and anti-discrimination laws do not include provisions that stipulate that Covid-19 is covered under these laws. Hundreds of cases have been filed in federal and state courts testing whether workers who contract Covid-19 at work or have Covid-related disabilities are eligible for protections under these laws. Cases will also test whether hiring, firing, or lay-off decisions can be made based on the increased risk of a person getting sick because they are a minority or an older worker who typically has co-morbidities. Congress is considering legislation that, on the one hand, covers workers who get the virus from work, and on the other hand, exempts employers from lawsuits if workers contract the virus at work. It is unknown at this time if employers will be held accountable for poor virus-mitigation strategies and actions, and if protections under OSHA, ADA, FMLA, and anti-discrimination laws will include workers who are exposed to Covid risks or who have contracted the virus.
- Essential workers have lost their jobs because they were afraid to go to work and become sick, or the employer laid off workers for economic reasons. It is unclear what percentage of the unemployment rate today (greater than 10%) can be attributable to the fear of going back to work. The rate of unemployment may also include those essential workers who could not leave young children or elderly parents home alone while they were at work. The true percentage of US workers out of work including lay-offs, economically-motivated terminations and voluntary terminations due to fear of contracting the virus or the lack of resource support for taking care of children or elderly relatives is unknown. This is because voluntary terminations (“quits”) are not tracked by the government. In combination, these forms of unemployment are often not tracked by traditional measures of the phenomenon and is often called “hidden unemployment.” Thus, it is very likely that the national unemployment rate is significantly higher than the official unemployment rate of greater than 10% today. If so, this means that the excess, invisible unemployment among low-income essential workers could be entirely attributable to the presence of Covid-19 in the workplace, the lack of adequate protections against contracting the virus, and the lack of resources to support these working families.
- The fear essential workers have of bringing the virus home to their families is realistic. Statistics show that low-income essential workers come home to crowded living conditions, which lead to intra-family spreading of the virus. Density per square mile is not as much of a vector of virus spread as the number of people per room. The story of

NYC early in the pandemic was more one of Queens and the Bronx rather than Manhattan. When the risk of contracting the virus is considerable given the employer's Covid-related workplace practices, the fear of spreading the virus to one's family is palpable.

### Employer Responses to Covid-19 in the Workplace

- In an effort to “clean up the workplace” in preparation for workers return to work, real estate, workforce strategy, and facilities managers (among others) sought solutions for mitigating the presence of the virus in the work environment and preventing spread of the virus among workers. The lead corporate real estate firms in the US and abroad developed guidelines for safe return to the workplace and cleaning protocols. Many guidebooks and handbooks have been generated, and although there are some differences across companies in terms of the details, most follow the guidelines set by the CDC. The targets of change involve the following:
  - Health screening at entrances and workplace zones
  - Wearing a mask in the office
  - Reduced density of desks or workstations
  - Expanded outside air ventilation and air filters to remove viruses and bacteria from the air
  - Ventilation systems that maximize air exchanges
  - One-way walkways through the office space
  - Restricted food and beverage service and delivery
  - Elimination of amenities (cafeteria meals, gyms, restorative spaces, coffee bars, snack bars, breakrooms, on-site sports activities, on-site social and special interest group meetings, and casual meeting places
  - Implementing touchless controls for doors and equipment
  - Plastic-covered button controls
  - Physical barriers at points of worker interaction
  - Reduced occupancies in rooms, elevators, stairways, lobbies, vehicles
  - Reduced and staggered work hours
  - Anti-viral materials used in the workplace (ground, walls, and furnishings)
  - Use of apps for controlling room occupancies, densities, and reservations for future room/seat use
  - Spacing directions marked on the floors and through signage
  - Implementing rotating waves of workers' return to the workplace to control number of workers in the building at one time
  - Use of co-working spaces to create flexible in-person work areas, with some use of suburban locations to reduce commuting time and risk of infection
  - Expanded flexible work arrangements to alleviate problems with workers' concerns regarding returning to the workplace and to reduce the number of workers in the workplace at one time
  - Eliminated or greatly reduced non-essential travel and isolation after travel
  - Frequent cleaning of high-use spaces and equipment (elevators, bathrooms)
  - Increased security personnel to control worker activity

- Contamination of workers continues despite these efforts. The risk of getting this infection is real and is heightened by transmission among asymptomatic workers, a threat almost unique to this pandemic, supporting workers' concerns about the risk of returning to work.
- Going to work now is an exercise in social isolation *in the workplace*. Many of the things workers looked forward to by coming to the workplace such as meeting new people, feeling a part of a larger group, working with equipment that was up-to-date and reliable, enjoying workplace amenities, learning from others in spontaneous interactions and in structured meetings, and feeling the freedom of being able to move around the workplace at will to serve their interests and purpose, have been eliminated due to Covid-19.

### Insights about Covid-19

- Social distancing is necessary in order to rob the virus of a new host to infect. It is clear that social distancing is not a natural human behavior, with some exceptions. One of our basic human needs is belongingness—the social connection among human beings. By forcing physical distancing among people, we have created not only social distancing but also social isolation. By eliminating ways to satisfy this basic need, our employers have created a psychological condition that harms personal well-being. On their own, workers have found ways to satisfy this need by connecting virtually through video-based meeting apps (Zoom, GoToMeeting) and by meeting in person, following CDC guidelines with masking and social distancing or not. Workers find ways to fulfill this desire, one way or another. When they cannot, it can lead to sadness, depression, anxiety, disengagement, and psychological disorders.
- Separation from family members in an effort to keep at-risk members of the family “safe” from the virus is also taking a toll. The loss of familial connections often can be the hardest to bear if they continue for long periods of time. It clearly exacerbates isolation at work.
- Autonomy is another basic human need that has been threatened by Covid-19. Autonomy is lost because people cannot make the choices they felt free to make prior to the onset of this pandemic. For example, people cannot make choices with respect to many personal responsibilities. With schools closed, day care facilities closed, businesses closed, and caregivers not available because they don't want to become exposed, many families have no support options to assist them with their daily routines such as schooling for children, eldercare, buying food, or help with chores. People feel a loss of control because of the restrictions imposed to protect oneself and others from the virus. The social network that previously provided support has been broken.
- Psychological safety, another basic human need, is severely challenged during this pandemic because the threat is invisible—not detectable to the naked eye. Even worse, an infected person may be asymptomatic but a threat nonetheless, so anyone could be infected and undetectable. The fear of other people is palpable and completely rational.

Fear of the unknown enemy can be very harmful psychologically.

- Physical safety goes together with psychological safety, and both are part of the same basic need. Risk of infection from contact with others is also difficult to assess for the same reason as above—the threat is invisible. Therefore, any direct or indirect contact can contaminate a person. Physical safety is severely challenged because the infection rate is greater than zero, and moreover, members of our society are defying the guidelines for safety and making contamination more likely. By connecting protective equipment and actions to political preferences, wearing masks to protect others is being turned into an opportunity for shaming, denigrating, and being aggressive toward mask wearers (and vice versa).
- For some, separation from work and the workplace has created a deficit in one’s sense of meaningfulness, with the uncertainty of the future being a major contributor to a feeling of weariness and helplessness. To break from these feelings, there is an urge to start down a slippery slope of activities that tempt fate by increasing exposure to the virus when spending time with friends and family outside the carefully established “safe germ pool” and venturing out to public social gatherings at bars and restaurants, for example. The tension between maintaining the “safe germ pool” and socializing outside the “pool” causes stress and can lead to guilt should any bad consequences result from venturing out.
- Experiencing positive emotions like awe, joy, pride, love, inspiration, optimism, and the like, is another basic human need. Diminishing opportunities for experiencing positive emotions can affect both well-being and physical health. Physically, negative emotions and low frequency positive emotions can lower the body’s immune response, thus increasing a person’s chance of contracting the virus in the first place and then decreasing that individual’s chances of fighting off the virus if infected by it.
- In sum, social distancing is a major source of unhappiness and decreased health and well-being for human beings during this pandemic. Social distancing is a major problem to solve. The reason for social distancing is to prevent a person from becoming a new host for the virus. There is no threat of being a host if one is surrounded by people who are not infected and will not be infected in the future. The Covid-19 vaccine is the hoped-for answer to this problem. However, scientists now speculate that the vaccine will be less than fully effective and, even if it were, it will take months to produce enough to vaccinate a significant fraction of the population. Without an effective vaccine coming in the near future, we have to look to other possible solutions—ones that work directly with human behavior and people’s desire to fulfill their basic human needs.

#### The Way Forward—Suggested Paths

- Real estate professionals and facilities managers are creating solutions in the workplace that make assumptions about human behavior that are not realistic. CDC guidelines provide physical answers to social distancing and lowering the probability of contaminating others and oneself. The physical solutions do not take into account psychological aspects of the workplace—for example, people’s habits. For example,

density reductions assume people will stay in place, but they don't. They will mix and interact with each other within the 6 ft. requirement, they will bend over the Plexiglas to talk to their co-workers and friends, they will date each other without masks and other PPE or social distancing, they will ignore one-way walkways, and they will forget to put their masks on after eating. Policing and penalties are impossible responses to maintain, especially if violations are numerous and if they cause repercussions. Most important, real estate professionals and facilities managers are making the workplace the most uninteresting and unsatisfying place one can be because all of the reasons for coming back to work have been removed: interactions with friends, eating good food, gossiping, hugging, being able to go within the workplace at one's discretion wherever it is best for their work, working out at the gym, socializing anywhere. We need to better understand how humans behave and use that as a starting point for designing new workplaces.

- “Freeze-frame” pictures of how things are supposed to work rather than how they actually work aren't useful. Even if they are populated at one point in time, this picture does not predict what will happen next or at any time in the future. This latter criterion is the point, not the freeze-frame moment in time. We need to know how people USE the space—where they go, how they go there, what they do when people approach or they approach others, how they navigate the walkways, etc.! Not only is this true in office spaces and other workspaces, it will be especially true in school settings—in classrooms, in buses, in corridors, in the playgrounds. Really? Social distance maintained?
- Some vital parts of organizational functioning just don't work through full or partial remote working. They include co-creation (no white board with markers and erasers), behavior modeling (can't observe others work and interact with others), rapid prototyping and iterating (takes hours and responding to ideas of the minute), building or changing organizational culture (observation of many people working and interacting, and watching leaders lead in person), building a team (don't work together in any normal sense of the word), socializing (no close physical proximity), building relationships to enhance the social network (no natural or even scheduled interactions with people you don't have to talk to for work), onboarding and mentoring of new employees (there is no 'there, there'), or performance measurement and management (no periodic monitoring or observing on the job or in interaction with others—only results). Bottom line: remote working removes observation and interaction components of vital business functions. The missing pieces in remote working can also be present in hybrid or back to work scenarios if social distancing is strictly enforced, removing the “chemistry” that emerges when working in close proximity.
- We are asking the wrong question. The question being asked today is, how can we keep people apart and isolated from others? It should be, *how can people work in close physical proximity safely?* Some suggested answers to this question follow.
- Suggestion #1: Create “Safety Bubbles”

There is no threat of being a host if one is surrounded by people who are not infected and will not be infected. How can we create safety bubbles where the virus is not present and

people can move freely within the bubble without worry of being infected and thus, without restrictions?

Safety bubbles can be created on a grass roots basis. A group of persons make a pact to be tested and then to sign a *loyalty oath* to stay away from people and places where the virus could exist, and that they *follow all the practices necessary for staying safe*. Members of the group can interact freely as a consequence, but if the loyalty is violated, then everyone gets sick because of the trust to interact without restrictions. Safety bubbles can grow in size as bubbles join, as long as the pact and oath are maintained within each bubble. Gradually the bubble can grow to encompass large numbers of people (even if unrelated to each other) as long as the pact and oath are maintained. Children could go back to school, workers could go back to work, and people could shop at businesses without fear of being infected.

Safety bubbles could be created within work groups. Teams could create their own safety bubbles, and then join with other coworkers' safety bubbles to create larger bubbles. If done carefully, the whole organization may become one giant safety bubble because of the commitment each person has made with their original safety bubble-mates.

For what kinds of jobs would a safety bubble be of great advantage? Any grouping of jobs would be eligible, but the people who would most benefit from close physical proximity are those who work interdependently: teams working on difficult problems, teams of "creatives," scientists working on a specific solution, technical design teams, and integrated service teams, for example. A safety bubble would succeed to the extent members of the bubble believe that they cannot succeed unless they work closely together and spontaneously which requires their physical collaborative presence. This belief that they cannot be successful without this assurance of their safety in close proximity is what motivates their behavior to comply with the demands of their oaths. It also motivates them to protect themselves from contamination from any outside-of-bubble source. Consequently, two qualities seem to be required to establish a secure safety bubble: *trust* that the other members of the bubble will keep each member safe, and the *shared value* that it is worth the sacrifice in personal freedoms outside the bubble in order to maintain its security.

Ideally, this is what we are trying to do as a nation by requiring mask wearing, washing hands, and watching our distance from each other. But this strategy is failing because of the lack of personal reasons for doing so that overcomes the personal reasons for not doing so. In short, the commitment people make within a safety bubble ensures the safety of the bubble—the commitment overcomes all other reasons. Both the NBA and the NHL have enacted such a solution, and so far, everyone within their bubbles is virus-free, and more important, they play the game like there is no pandemic. Other professional sports associations have not been as successful, and one contributing factor could be the lack of clear leadership in establishing the unequivocal requirements for creating a safety bubble and ensuring that these requirements are met. Trust among the baseball players and between the players and the owners does not appear to have been

established and clearly the rules required to keep the bubble safe were not followed by all. The weakest link in this solution is how bubble members behave when they step outside the bubble—do they keep themselves safe by wearing protective PPE (masks), washing hands, and keeping a distance of six feet? The sanctity of any bubble may be challenged as families are allowed to enter the bubbles without ensuring that they make the same pact, making maintenance of the bubble more complex but still manageable.

- Suggestion #2: Use Co-Working Spaces to “Host” Safety Bubbles

The bubbles can exist in co-working spaces where safety bubbles are small but self-contained as an intact group. Co-working spaces can be located in suburbs where workers live, so they can minimize their exposure to the virus. Neighborhood co-working offices or co-working satellite offices enable small groups of bubbles to work together free from the virus. For example, cross-functional teams that need to work together can occupy a co-working space and interact in-person to have conversations, meetings, discussions, and presentations that require physical proximity and significant periods of time. There could be rotating groups coming through the co-working space across days of the week or across parts of the month in order to accommodate team needs. The only requirement is periodic cleaning to ensure no traces of the virus have been brought in. However, if all of the “team bubbles” maintain their safety pledges, then theoretically no virus would be introduced.

An entirely different version of the co-working option is to create *mobile* co-working spaces by introducing co-working spaces on wheels. Persons familiar with the mobile lounges at the Dulles Airport in Washington DC know what large, mobile spaces like these look like. Mobile lounge-type vehicles could be retrofitted (with bathrooms) into meeting and working spaces for team bubbles, and because these co-working spaces are on wheels, they can go to where the teams are located. They can pick up team members or park in a central location for team members to use. The advantage of a mobile unit is the flexibility of location and timing of use. This being an entirely different solution would need to be penciled out in terms of costs, range of mobility, desirability as a venue for work, and so on. However, another advantage of this option is an organization’s ability to change the interior of the meeting space following recommendations for interior design elements that help create a healthy workplace. Different mobile units could be outfitted to test a variety of health- and well-being-promoting elements to determine which ones generate the best health, well-being and productivity outcomes.

- Suggestion #3: Designer PPE

For cases where safety bubbles are not possible, there needs to be *incentives* for people to follow safety measures. Mask wearing is a large issue, and recent scientific reports suggest that mask wearing is very effective in lowering the risk of communicating the virus to others with certain kinds of masks. N95s are quite effective if worn correctly and fit tested, and other masks are also effective but not as effective as N95’s. Mask wearing is most effective when everyone is wearing a mask. Personal reasons for not wearing masks have to be overcome as indicated above. A potential motivator for wearing a mask

may be *designer PPE*. In the early 1960's, no one had heard of writing letters or putting pictures on clothing. One of us met the woman who created the first T-shirt of this kind. She put "Snoopy" on a sweatshirt. It sold like hotcakes. A brand new idea in clothing began. It is so commonplace now that we don't even think about clothing without logos, slogans, pictures, or single words. Personal Protective Equipment (PPE) may be the next Snoopy. Versions of this idea are already popping up, and people who wear custom-statement masks like wearing them. How can this trend motivate the non-wearers? We need to ask them. Maybe they know, and we can make it happen to increase the frequency of use among this group.

What if organizations provided logo or mission statement masks? What if there was a contest for the most attractive mask design? We don't even need to conform to the current profile of the mask—we just need to cover the nose and mouth. A new clothing line is waiting to grow. We just need to know more about our potential market to convert the non-wearers.

In India, the air in some cities (e.g., Pune) is so bad that people out and about in the streets and riding vehicles wear face coverings to minimize inhaling bad air. Without being required to wear face coverings for health reasons, city dwellers began wearing scarves with elaborate designs. A subtle competition among young adult scarf wearers emerged—who had the best-looking scarf? Sensing this trend, clothing stores within the city started carrying designer and brightly-colored scarves and marketing them to city dwellers *for the purpose of covering one's nose and mouth*. Scarves had always been available. They were worn around the shoulders, and they were worn by women. Now, both men and women wear the scarves, and wear them around their faces. The incentive (or reason) was to be healthier. Making PPE attractive or a fashion statement or even a personal statement might overcome current reasons for not wearing a mask.

- Suggestion #4: Use Technology to Create Virtual Restorative Spaces

The suggestions offered here may not be enough to ease people's fatigue and mental issues associated with being in the middle of a pandemic and experiencing the illness and deaths around them. For those who work remotely and have little relief from continuous hours looking into a computer screen and talking with others on a video communication platform, they also need to escape this environment to restore and replenish their well-being. Even before the pandemic, workers who experienced work overload and significant stress on the job needed restorative experiences to bring them back to health. How can we find this kind of relief under the constraints of a pandemic?

Virtual reality is one avenue that technology developers are exploring for this purpose. Virtual reality can be animated in cartoon-like form, or it can capture a real space that users can immerse themselves in so that they can have an experience as if they were there. Biophilia, or elements of nature that are integrated into a built environment, has a well-established restorative effect on the brain and the body. Biophilia has been introduced into office spaces and adjacent to office buildings with great results. How can we capture biophilia benefits virtually? One idea is to generate a restorative experience

through an internet or cable “channel” that workers can tune into and be in the scene somehow. Not being technology geeks, we can only imagine what this would look like, but this is the start of an idea. If an immersive experience can be paired with social interaction with others in the scene, workers could experience spontaneous connections with others who may or may not be like them. Workers could also meet up with their friends from work in the space and have casual conversations. The benefit of something like this (that would be employer sponsored or employer provided) would be to counter the negatives of remote working mentioned above—namely the lack of spontaneous conversations and a place to restore oneself during the work day.

An added benefit of having a place to talk with different kinds of people outside of their work groups is to stimulate connections between people that may be useful for all sorts of organizational advantages such as career development, mentoring, problem-solving, and relationship-building across the organization. Perhaps more important, it also increases the chances of the emergence of creativity and innovation by offering the opportunity to meet people outside of a worker’s social network and thus, building new knowledge and perspectives for later use, and by creating the restorative space to allow new ideas to bubble-up when the brain is free from tasks. The possibilities for multiple benefits to workers and their organizations are potentially endless. We just need to build it.

In conclusion, do we have the will to see the reality in front of us, and if we do, do we have the imagination to change the way we do things to make our lives and the lives of others healthier, more productive, and with a greater sense of well-being?