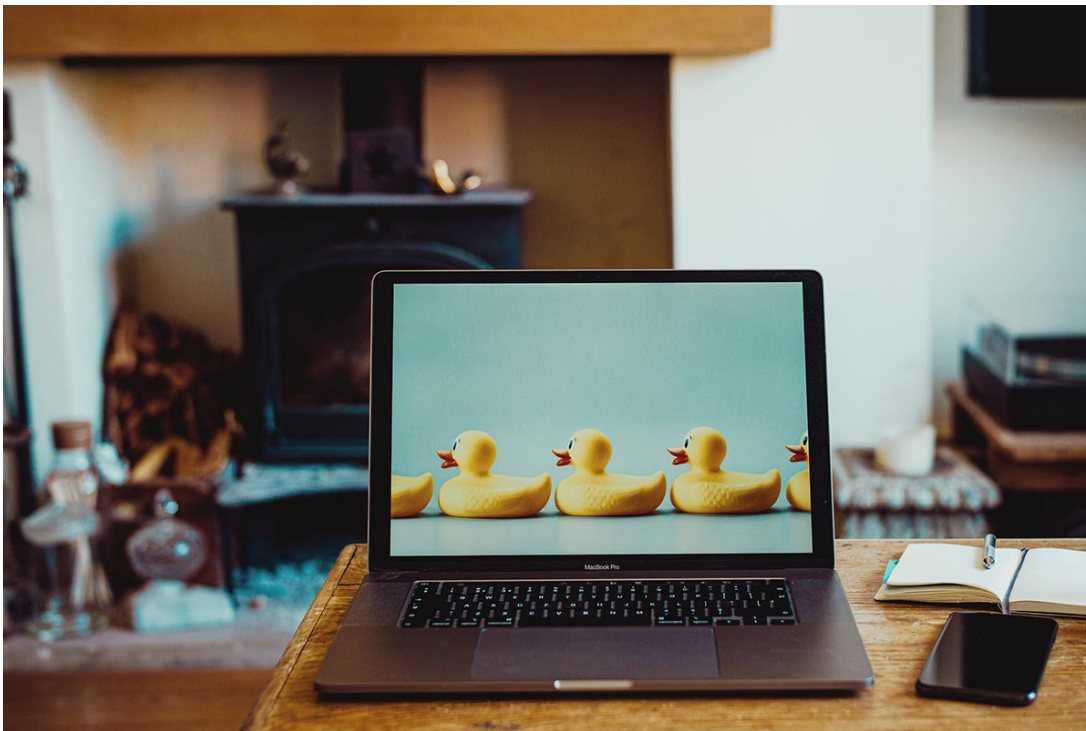**STRATEGY**

Safeguarding Serendipitous Creativity During the COVID-19 Pandemic

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How does a firm ensure creative interactions among people within and outside of the organization in pandemic conditions?

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While countries around the world were cautiously making moves to reopen their economies, a new round of lock-down measures to contain the Covid-19 Pandemic is unfolding rapidly. In the light of great uncertainty concerning both the effects of the lock-

down and the risks of a second wave of infections, many organizations face difficult questions about what a "return to normal" should look like.

One important question that managers should consider these days is how to ensure creative interactions among people within and outside of the organization. It is well-known, by now, that the best ideas and solutions don't necessarily emerge during planned formal meetings. Indeed, water-cooler or coffee-corner interactions are textbook examples of settings offering opportunities for serendipitous yet valuable face-to-face interactions among employees.

Serendipity plays an important role in the cross-fertilization of ideas and is thus the base of many innovations. Numerous successful products resulted from serendipitous findings. Arthur Fry, the developer of 3M's famous Post-It Notes, got his inspiration for the product after learning about his colleague's "failed" attempt to create a super strong adhesive. Other well-known examples include Viagra, penicillin, and X-rays.

Over the past decades, workplace designers have become increasingly knowledgeable about how to socially engineer workplaces to stimulate close encounters that spark innovation. Famous examples being the homey offices of Google, which invite employees to wander and linger.

Such socially engineered workplaces draw on the science of social network theory, which stipulates that dense networks such as those found in permanent teams are good for solving particular types of problems yet lack the benefit from outside stimuli to spark creativity. Managers and organizational members that bridge dense networks with outsiders have been shown to be more creative and advance their careers faster (Structural holes - Burt, 2004 etc.)

As the sudden lock-down measures in the face of the Covid-19 pandemic and the ensuing surge in home-office measures took hold, opportunities for serendipitous interactions among colleagues (and strangers) have come to a dramatic halt. Whether organizations will have to work around measures specifically designed to limit random physical interactions for much longer or will indeed be able to soon resume normal operations remains an open question for now. In the best-case scenario, the return to normal will take

time. Many organizations opt for a gradual transition using schedules to rotate between physical office and home-office and the stepwise return of workers in order of necessity for physical presence. At any rate, it is clear that the recent experience will leave a lasting mark on the way we work. Indeed, while many companies—including Twitter and Google have already announced to accept home-office as the new normal for the foreseeable future, Netflix founder Reed Hastings recently expressed he sees no positives from staff working from home.

In the light of these far-reaching changes, it is worth asking how managers can ensure that those important serendipitous interactions continue to take place in a post-Pandemic world. Building on our own research of drug-discovery projects—where we found serendipitous interactions to be critically important for creativity—and an inventory of best-practices from the Covid-19 pandemic, we present five recommendations for leaders aiming to safeguard creativity in their organizations.

The anatomy of serendipitous interactions

Imagine the following situation. While doing groceries, you run into an old friend who shares that she is temporarily moving across states for a work engagement. Thinking of your friend's lovely apartment becoming vacant, you are reminded of your recently divorced colleague who has been looking for a new residence. As it turns out, your friend has not yet found a subtenant and would be happy to be introduced to your colleague—a match is born.

The example contains the main ingredients of a serendipitous discovery: A person engaged in a (latent or explicit) search for a solution finds themselves in a setting that enables a surprising association between previously unconnected pieces of information, jointly leading to an unexpected solution. Situations like these are not only common in daily life, but indeed all-important sources of creative problem-solving and innovation in organizations.

In our own research on early-stage pharmaceutical drug discovery projects, we found that serendipitous interactions among employees were a crucial engine of progress and knowledge creation. Particularly revealing was the finding that serendipitous interactions of team members with outsiders—employees with no formal responsibilities for a particular assignment—often helped teams to gain valuable insights that proved pivotal for solving thorny scientific problems and ending deadlocks. While the prevalence and importance of this mechanism was surprising in this highly complex and already interdisciplinary scientific setting, our finding confirms a well-known adage from the management literature that creativity benefits from out of the box thinking, new inspiration, a combination of different ideas, and the availability of some ostensibly superfluous yet practically valuable information.

Research into workplace design and its sociological and psycho-spatial foundations provides important insights in the preconditions of serendipitous interactions and their role in creative processes. Not surprisingly, studies generally support that physical co-presence sparks random interactions, knowledge sharing, and unrequested help (Appel-Meulenbroek, 2010). Fayard and Weeks (2007), in their study of the "water-cooler effect," propose that spaces need to offer accessibility, proximity, privacy, legitimacy, and functionality to draw in people together for informal interactions.

Physical co-presence can be substituted by co-presence in virtual spaces such as social media platforms. Such platforms, however, in their effort to stimulate users to expand their social networks, tend to promote items that are popular and similar to the user's own preferences and characteristics. In so doing, social recommender systems typically suppress more distant connections that may be more relevant, novel, and unexpected—though interest in novel serendipity-oriented algorithms is on the rise (e.g., Kotkov, Veijalainen, & Wang, 2020). Indeed, as our work on drug-discovery teams illustrated, knowledge shared among people with diverse backgrounds and disciplines, in particular, promotes creativity and innovation.

While physical or virtual co-location is an important condition, for collective creativity to flourish, individuals also need to engage in help seeking, help giving, and reflective reframing (i.e., making sense of the available knowledge and reimagining the question),

and experience that such behaviors are positively reinforcing and rewarded (Hargadon & Bechky, 2006).

Safeguarding serendipitous creativity during the Corona crisis

As the Corona pandemic unfolded and many were confined to working from home, organizations desperately turned to emails, online newsletters, virtual meetings, and instant messaging to keep their business running. Despite the initial disruption, many perceived the switch to video conferencing as a means for synchronous information sharing to be more efficient and productive than in-person meetings. Yet with the exit of "aimless" small talk, out went the baby with the bathwater. Moreover, with the sudden flood of information from asynchronous channels such as e-mails, newsletters, and the often-hectic reality of working from home, the capacity for absorbing any information beyond the mere essential was drastically reduced. Indeed, large scale **surveys show** that the sudden paucity of spontaneous, unplanned interactions and the benefits they afford, combined with a surge of information were major concerns of home office workers. How can managers enable employees to have serendipitous interactions that trigger access to superfluous information? Below we identify three challenges concerning the opportunities for serendipitous creativity and suggest solutions for managers aspiring to overcome them.

Challenge 1: Fewer opportunities for informal interactions

While stay-at-home restrictions are gradually rolled back, many employees still work from home. Major companies have already announced they will allow employees to continue to work from home once the pandemic passes. As a result, ordinary informal physical encounters will be lost and replaced by more formal and informationally stripped-down virtual interactions. As one senior manager at Google noted, "A problem with the virtual meeting is that everybody is equally close or far. In a physical meeting, instead, some people meet by chance for a coffee and chit chat in smaller groups of 2-3 people, who can

get very excited about something. It's ok for others to walk away after the coffee. In a virtual meeting you cannot have parallel chats, and "walking away" is socially awkward. While before you could just walk over to someone or turn around to ask a question, now every virtual interaction becomes like a full meeting."

While opportunities for informal interactions abound at the watercooler or on the way to the bathroom, in online interactions, people are less eager to initiate seemingly aimless interactions or side chats. Some organizations even go so far as to discourage such interactions by disabling the chat function during online meetings to avoid distraction. Indeed, unless specifically designed to facilitate random encounters, online channels tend to deter informal interactions.

Solution:

While many organizations have struggled to promote informal communication among employees during the pandemic, some have raised to the occasion. Consider Belgium based Vlerick Business School—a private institute with campuses in Ghent, Leuven, and Brussels, which planned "informal interaction time" during formal online staff meetings. After meetings, the School's 200 employees were randomly assigned to breakout rooms of 4-5 people for informal chats. Institutionalizing informal interactions in this way helped employees to create new connections across functional and hierarchical boundaries and discuss random topics with colleagues with whom they would otherwise not interact. By meeting colleagues in this way, employees gained new insights about topics which were not on their agenda and discovered opportunities for further collaboration after the breakout meetings. In addition to these meetings, Vlerick's HR department invited employees for open coffee breaks and yoga sessions, which further stimulated colleagues to chat and move together. Receiving regular calendar invitations for informal Zoom meetings not only reminded people of the importance of informal meetings but enabled the staff to have a feeling of connectedness.

Challenge 2: Lack of attention to peripheral knowledge in online interactions

Online interactions do not only decrease the *frequency* of informal interactions, but also decrease the *effectiveness* whereby employees share "peripheral knowledge" –i.e., knowledge that is critical to a small audience but seemingly parenthetical to other receivers. As our research shows, large-scale plenary meetings where project members from different knowledge domains share information with each other are an important medium for sharing peripheral knowledge among project team members.

During the Covid-19 pandemic, companies were forced to convert big-scale project meetings to virtual meetings. Yet large-scale virtual meetings turned out to be poorly equipped for effectively exchanging peripheral knowledge. Indeed, a grand challenge in online meetings lies in keeping the attention of all employees high, especially when people have to sit through long discussions with seemingly irrelevant information. Not only is staying focused in virtual meetings physically more draining, social pressure for being "present" and paying attention is also lower. Therefore "free-riders" have an easier way out than in face-to-face meetings. By now, many seasoned Zoomers have honed their skills of checking e-mails, surfing, or worse, walking out of meetings while enjoying the privacy of muted video and audio.

Moreover, online interactions are typically less interactive therefore enabling less control over the effectiveness of knowledge transfer to the audience. For one-way channels such as emails and newsletters, receivers are unlikely to absorb and process information that is not directly related to their current activities. This was especially problematic in the light of the explosion of newsletters and emails that transpired as organizations scrambled to inform their employees about COVID policies, and many people struggled to adapt to a new reality at home and at work.

Aside from the lack of attention to peripheral knowledge received through one-way channels, online means of interactive communication such as Zoom meetings tend to strip away peripheral knowledge too. A non-obvious yet serious problem concerns people's reduced inclination to share seemingly non-essential knowledge online. Whereas interjecting, small- talk, and joking are complex social interactions that are common in offline interactions, tiny delays and the limited availability of non-verbal cues greatly complicate turn-taking in live online interactions and mean that people are less likely to use strategies for peripheral knowledge sharing in online settings.

Solution:

While drawing employees' attention to peripheral knowledge is challenging—and sometimes even undesirable, several tactics can help. The primary principle is that the most effective way to engage people is by appealing to their deep need for human connecting and meaning. When designing opportunities for online interactions, ensuring that employees have an interesting human experience that fulfil the need for human connection is the surest way to get people in a state of mind where attention to peripheral knowledge—and peripheral problems—is high.

To achieve this, managers should attempt to make online interactions playful and enjoyable. As one of our respondents commented, introducing short playful sessions during meetings is an effective way to help attendees reconnect, be motivated to contribute to group activities, and get inspired to create. *The Global Play Brigade* is one initiative that has emerged in response to the global pandemic. In March 2020, when it became evident that Covid-19 was turning into a pandemic, a collective of 40 performers, improvisers, educators, musicians, clowns, therapists, and coaches across the world began to offer free Play and Conversation workshops via Zoom and WhatsApp, in different languages and time zones around the world. One of the Global Play Brigade's aims is to make online meetings more enjoyable and human and thus become a more effective way of connecting and inspiring creativity. They employ play and improvisation tools to make online meetings more enjoyable and human. Such tools could readily be applied in project meetings to create an inspiring and motivated interactions between the employees.

Another way to direct employees' attention toward distant knowledge domains is by introducing engaging and interactive modalities such as polls and quizzes. Given that the attention span of participants in virtual meetings tends to radically drop after about ten minutes, such activities help to change the rhythm of the meetings and keep participation high.

Challenge 3: Reduced psychological safety in online meetings

In 2014, Google launched Project Aristotle to identify the key drivers of high-performing teams. In line with decades of scientific research, they found that the one common characteristic of high-performing teams was a group culture (the combination of norms, customs, and social behaviors) that fostered psychological safety. In team with high psychological safety team members feel comfortable with taking risks and are confident that no one will embarrass or punish them for admitting a mistake, asking a question, or offering a new idea. Our own research on drug discovery teams similarly shows that episodes in which scientists from distant knowledge domains ask their colleagues seemingly naïve questions are crucial for progress and project success. Yet to ask naïve questions, people need to feel comfortable with challenging the assumptions of other experts on topics they have little knowledge about.

Fostering psychological safety in online settings is challenging for several reasons. First, trust is best built through personal, face-to-face interactions. Being online induces a stronger feeling of being "on the record" and increases one's self-awareness. Seeing ourselves on screen increases our self-control and makes us less inclined to interrupt and ask questions.

Second, the larger the group of online participants, the more complicated it becomes to contribute proactively and speak up to share ideas.

Solution:

It is important that people feel safe and encouraged to speak their mind during online meetings. Meeting leaders can enhance psychological safety in online settings by setting the ground rules in the beginning of a meeting and making sure that everybody feels invited to speak and encouraged to share their frustrations and failures without being judged. Our research on drug discovery teams shows that inviting people to ask questions and explicitly welcoming "naïve questions" helps people overcome their inertia and start sharing ideas. Organizations can also foster psychological safety by organizing "online failure sessions", where everybody is invited to share their failures. By organizing

additional interactions in smaller group sessions or breakout rooms, introverted people can feel more comfortable and encouraged to share their thoughts and stimulate the discovery of new and surprising ideas.

Outlook

What would happen if discovery became more planned? Innovation calls for cross-fertilization of ideas across different knowledge domains, disciplines, and methods. If all discovery were to be planned, companies would undoubtably see less high-quality ideas and innovative products. Radical innovation would become rarer, and organizations would be less agile and less capable of capturing emerging needs. Not the best prospect for our future. Managers should be prepared to avoid such a future in a time where home-office is the new normal.

Given the uncertainty about the return of informal face-to-face interactions, managers should aim to foster random encounters, psychological safety, and the sharing of peripheral knowledge online within and across their teams. Software developers recognizing this unmet need will continue to see a growing market for innovative solutions, as the examples of 'virtual break room' apps such as Hallway (aimed at Slack users), Donut, miro, and Microsoft Teams' Together mode demonstrate. Yet as with all tools designed to stimulate creativity and innovation, successful application ultimately depends on business leaders' continuous efforts to champion such solutions and showcase their value.

▶ References
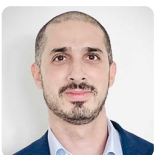
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