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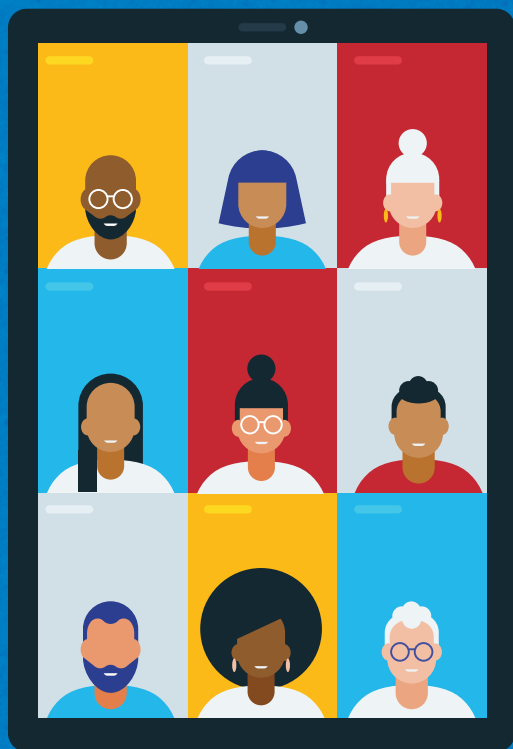## Management Review

SPECIAL
COLLECTION

WORKPLACE, TEAMS & CULTURE

Building Better Teams

A special report on why teams work well, why they don't, and how to tackle problems in order to ensure that collaboration delivers the best results.

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WINTER 2021

AS ORGANIZATIONAL HIERARCHIES have flattened and decision-making has grown more decentralized, teams have become central to how work gets done. But new modes of working are also upending our idea of the team as a stable cohort of employees: Individuals may be assigned to multiple teams on an as-needed basis, and teams themselves may be assembled and disbanded along with the projects they support. These new and evolving structures pose challenges to leaders, who must not only attend to individual performance and development but also vigilantly manage team dynamics to ensure optimal functioning. With work groups now often composed of individuals who are physically remote from one another, the complexity has only increased. The articles in this special report can help managers better understand why teams work well, why they don't, and how to tackle problems in order to ensure that collaboration delivers the best results.

In our lead article, Rob Cross and Inga Carboni delve into the root causes of team dysfunction — and find that many leaders fail to create the conditions in which healthy collaboration can thrive and subsequently don't choose effective interventions to fix broken teams. They describe six types of collaborative dysfunction, illuminating the underlying issues and suggesting tactics that can get a team back on track toward achieving its goals.

While many of us might assume that being part of a high-functioning team automatically confers some esprit de corps and a sense of connection among the individual members, research by Constance N. Hadley and Mark Mortensen finds that, surprisingly, the opposite is often true. They suggest that current trends in team design are leading to an increase in social isolation.

Finally, managing effective teamwork during this year of a pandemic and widespread remote working requires us to consider how virtual interactions change the nature of collaboration, especially among teams charged with creativity and innovation. We may wish we were all together at a whiteboard, charged with the energy generated by rapid-fire brainstorming, but Leigh Thompson argues that creativity won't suffer — and in fact may thrive when teams collaborate virtually.

— Elizabeth Heichler
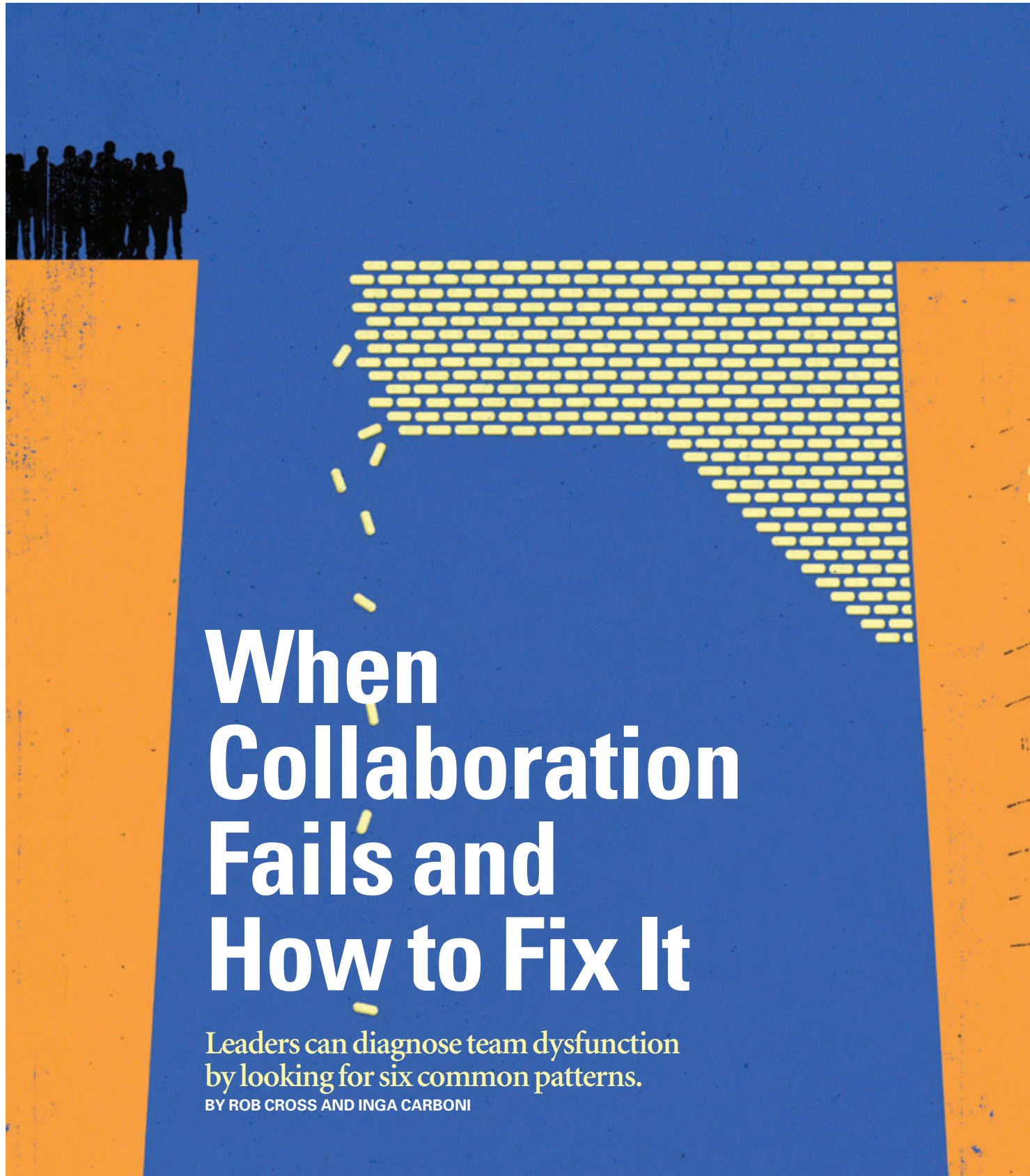
When Collaboration Fails and How to Fix It

Leaders can diagnose team dysfunction by looking for six common patterns.

BY ROB CROSS AND INGA CARBONI

Beth was excited when her CEO asked if she would take over a high-profile commercialization project — one expected to double the audiovisual technology company's revenues in the coming decade and diversify its offerings. She would be replacing a valued leader who was leaving the organization. The project had been struggling, but it was still early days, and the potential upside was amazing. Beth accepted the assignment on the spot.

In her first week, Beth dug in. She found the project fully funded and staffed by 64 carefully selected people from departments across the company, including engineering, marketing, finance, and quality assurance. Three concurrent work streams — focusing on research, product development, and marketing and sales — had been established and a well-respected leader appointed for each.

Yet, 10 months later, the project was badly behind schedule and bogged down. Everyone with whom Beth spoke was frustrated with the slow pace of progress. They were all pointing fingers, but in different directions. The CEO believed the problem was a failure of leadership in the three work streams. The departing project leader blamed team members for not devoting enough time to the project. One team member said the problem was poor meeting management; another said key decisions weren't being made in a timely manner.

What should Beth do? Appoint new work stream leaders? Relaunch the project? Restructure the group or the work? Add more people to the project team? Schedule more meetings or provide an online work platform?

It's too soon to say. At this juncture, all Beth really knows is that the project is a collaborative effort critical to the success of the organization and that the effort is failing.

Collaborative failures can stem from a variety of conditions. Sometimes they are woven into the fabric of groups when they are formed, perhaps because team members' incentives are misaligned or decision rights haven't been defined. Sometimes they develop as groups evolve and their members interact, as when a group expands beyond the limits of its structure or gets bombarded with too many priorities.

Such problems are pernicious and prevalent. Work, after all, is increasingly collaborative. Research conducted by the Institute for Corporate Productivity found that 40% of high-performance organizations (that is, those that excel in revenue growth, profitability, and market share compared with their competition over a five-year time horizon) are shifting to a "high or very high degree" from traditional functions to more cross-functional project- and team-based work.[1] In addition, trends that support and drive more collaboration are gaining momentum, including the rising use of Agile methodologies, the de-layering of hierarchies, the adoption of digital tools and technologies, and the dramatic transition to remote work in response to COVID-19.

Meanwhile, more and more leaders are facing challenges like Beth's without a thorough understanding of the underlying causes or a tool kit for addressing them. In Deloitte's 2019 Global Human Capital Trends survey, 65% of the nearly 10,000 respondents identified the shift from functional hierarchies to team-centric and network-based organizational models as "important" or "very important." Yet only 7% of the respondents believed that their organizations were "very ready" to execute the shift to network-based models, and only 6% rated themselves "very effective" at managing cross-functional teams.[2]

Our research sheds light on why groups are struggling. By and large, leaders are unleashing their teams without establishing the conditions needed to support collaboration. Moreover, when collaborative efforts break down, leaders are relying on conventional interventions that may not address the true nature of their problems.

The consequences are wide ranging. Collaborative failure hinders organizational and employee performance and productivity.[3] It creates obstacles to

innovation, impeding both idea generation and implementation.[4] It erodes employee engagement — contributing to stress, overload, and burnout.[5]

But before leaders like Beth can mitigate the consequences, they must pinpoint the causes. Until then, any solution will be hit or miss — or, worse, it could exacerbate the problem.

Using organizational network analysis (ONA) to study groups across industries and geographies, we've identified the patterns of network connectivity and collaborative practices associated with high-performing teams and units.[6] This research also revealed six patterns of collaborative dysfunction that have a negative impact on performance.

The six dysfunctional archetypes undermined performance in 88% of the 66 organizations we studied in both phases of this research. To better understand the patterns, we interviewed 100 leaders of collaborative efforts in 20 major companies.[7] In this article, we share what we've learned about the types of dysfunction, a number of the drivers that create them, and a select set of remedies for addressing them.

DYSFUNCTION #1: Hub-and-Spoke Networks
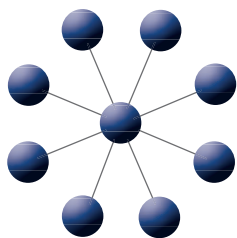
Groups need formal and informal leaders, but sometimes they become the primary cause of collaborative breakdowns. ONA maps that show a preponderance of connections flowing through a group's leaders or experts reveal a dysfunctional pattern that we call *hub-and-spoke networks*.

In this pattern, hubs tend to throttle down a group's performance. They may hinder innovation by constraining the flow of information and resources through the spokes or by creating echo chambers in which ideas that penetrate the hub get an unwarranted degree of positive consideration. Overloaded leader-hubs can also become bottlenecks, slowing the pace of work because they can't make timely decisions and eventually shift from proactive to reactive management.

Hub-and-spoke patterns often emerge when new groups are formed to address strategic initiatives or in times of change, such as mergers and reorganizations. One of our interviewees, a vice president in an insurance company, found herself in this situation when she became the leader of a new 80-member group in the finance department. The group was pulled together quickly by combining several preexisting, geographically disparate teams. It was immediately under pressure to deliver services at scale across the organization. But no time was taken to integrate the teams, nor were their structures and processes altered to accommodate their new combined scale. The VP became the central hub in the new group's network by default.

"Everybody was operating in siloed work teams, and every team was operating in different ways — some successfully, some not. There was no 'we' and no interest in changing the various ways the teams were working, because each team believed that it was already operating in a perfect manner," she recalls. "Meanwhile, everyone was relying on me for all of the coordination and decision-making. So my days were filled with one-on-one meetings. It was tough."

The hub-and-spoke archetype can also stem from hard-to-break habits and behaviors. Ego and a strict command-and-control mindset can prompt leaders to create this pattern by micromanaging, interjecting when they do not have true expertise, or hoarding information and making too many decisions themselves. Team members can be overly dependent on leaders, too. We frequently see this when employees have been conditioned not to take risks, or to ask for approval on the smallest of decisions. Paradoxically, it can also happen when servant-minded leaders "save the day" too often and team members fall into the habit of not delivering on commitments. These behaviors are especially damaging if they become embedded in the organizational culture. Cultural mores that exaggerate the power differential between leaders and group members can heighten fears of failure, drive people to continually seek out validation from leaders, and stymie collaboration as a result.

The knee-jerk response to repairing hub-and-spoke networks is often restructuring the group or adopting a new technology to facilitate

communication. But if behaviors are driving the dysfunction, behavioral change is required. When an incoming leader took over a new product development group in a life sciences company, she bumped into a fear-driven culture created by her predecessor and soon noticed that a hub-and-spoke pattern had emerged: Small teams within the group ran everything by her — they were afraid to make any sort of move without her input. So she conducted a series of workshops for the entire group and held targeted one-on-one discussions with influential employees within the various subteams. These sessions and conversations examined fear-producing behaviors such as criticizing ideas in ways that demoralized teammates ("That is a bad idea") and the unproductive patterns these behaviors had created (for instance, not reaching out to teammates proactively to solve problems). The one-on-ones encouraged individuals to take risks and assured them that the new leader operated differently and "had their backs." The whole group discussed ways to hold one another accountable for constructive problem-solving norms and assuming positive intent, and the leader encouraged even the most junior employee to hold *her* accountable every step of the way. Further, the group focused on a specific set of behaviors that generate energy in teams and agreed to collectively engage in these positive interactions.[8]

The structural elements of teams and organizations — the ways in which roles, decision rights, and work processes are defined — frequently create or aggravate the behavioral and cultural problems described above, resulting in hubs that obstruct collaboration. Supporting systems, especially rating systems and compensation plans, can further encourage excessive reliance on leader-hubs.

Often, the leaders of new groups are given strong decision rights and rely on strategic mandates and performance management processes to motivate followers to align with their objectives. These mechanisms help ensure that the group becomes properly established. But once group members get their footing, and particularly when groups begin to grow larger, such measures can unnecessarily slow networks down. To promote collaboration, leaders should scale back their involvement as soon as they see evidence that team members are capable of solving problems more independently. One partner in a financial advisory firm, which reorganized more than 50 offices into 11 territories, started off personally reviewing and approving all new business and hiring decisions in his territory. But as soon as the offices began consistently making business development and hiring decisions that reflected the needs of the entire organization, not just of their territory, he altered the decision rights — giving them to office managers — and stepped out of the process wherever his direct input wasn't adding value.

DYSFUNCTION #2: Disenfranchised Nodes
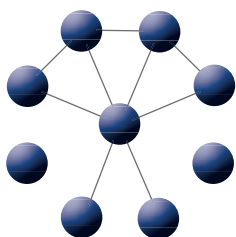
Often, we see ONA maps in which some of the connections between nodes are stunted or missing altogether. The people who occupy the poorly connected nodes are isolated from the group: They may not receive the resources they need to do their work or the same opportunities to contribute to the group as their better-connected colleagues. As a result, work is not completed as efficiently as it should be, and the expertise of isolated team members is not fully utilized. We've named this archetype of collaborative dysfunction *disenfranchised nodes.*

Group members can become disenfranchised for various reasons. Sometimes their leaders or their colleagues cast them as outsiders because they are new to the group or because they are unlike other group members. Sometimes, as we have often seen with remote workers and contract employees, they are disconnected by virtue of their status within the group or their physical location.

A senior manager in the financial practice of a global strategic and operational effectiveness consulting company experienced this dysfunction firsthand when he joined a team that had recently expanded from a single group of 40 colocated team members to 140 members spread over four locations. Initially, the leaders of the group made a concerted effort to create connections among the team members
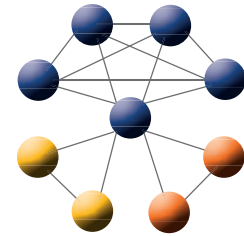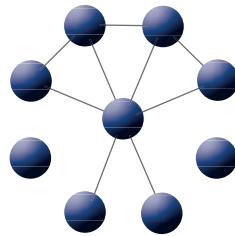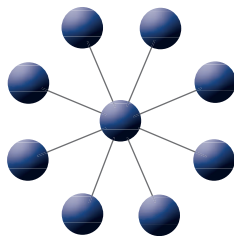
and involve them in decisions by bringing everyone together for bimonthly meetings and social gatherings. Eventually, however, the cost and the time needed to meet regularly in person proved onerous, and the meetings were replaced with conference calls. And then the calls dwindled down to a half-hour before being eliminated altogether. "Quite a lot of the team, because we were working for individual clients

and on client sites, began to feel more like individual contractors than part of the practice," recalls the manager. "I put myself in the 'disenfranchised' camp."

In this case, physical and temporal distance were the primary drivers of the dysfunction. The leaders of the financial practice addressed it by first reaching out to team members to understand why they were feeling disenfranchised. Then they

WHY IS YOUR ORGANIZATION STRUGGLING TO COLLABORATE?

Understanding the six types of collaborative dysfunction is critical to effective problem resolution.

DYSFUNCTION		
HUB-AND-SPOKE NETWORKS	**DISENFRANCHISED NODES**	**MISALIGNED NODES**
ISSUE		
Excessive reliance on formal and informal leaders slows decision-making, blocks innovation, alienates team members, and overloads leaders.	Marginalized team members lack access to resources and struggle to contribute, negatively affecting group performance and the disenfranchised members' engagement and retention.	Factions that don't relate to one another slow down work, erode cohesion, and undermine project success.
DRIVERS		
• Hierarchical or overly controlling leadership behaviors. • Dominance of experts. • Flaws in roles, decision rights, or incentives. • A fear-driven culture that promotes approval-seeking and validation.	• Leaders who elevate some group members above others. • Onerous processes that cause some members to become disillusioned and withdraw. • A lack of trust in peers outside the function and/or an overreliance on familiar faces. • Disconnection by virtue of status or physical location.	• Agreeing on integrated objectives but then pursuing work in a way that optimizes functional or business unit goals. • Problems and solutions viewed only from one discipline's perspective. • Clusters of like-minded teammates. • Distrust or competition among the team members.
SOLUTIONS		
• Boost engagement in work by coaching people to assume an appropriate level of authority, and focus on what, not how. • Distribute knowledge through methodology, tools, databases, and training. • Integrate expertise through joint work. • Revise decision rights, roles, and/or incentives. • Shift work away from hubs.	• Create a process or role for recognizing and reintegrating the disenfranchised. • Embed inclusion as a group value. • Add process touch points to give individuals a greater voice or more opportunities to participate. • Use technology to overcome geographic disconnection.	• Cocreate shared goals and priorities, and reinforce them with metrics and accountability. • Seek forums that build competence and interpersonal trust and that establish the value of group goals. • Create processes to identify and address misalignments. • Conduct exercises that enable members to connect outside the group and reset relationships.

began devoting more time to interacting with individual team members — checking in by phone more regularly and soliciting their opinions — and resumed a regular, albeit less frequent, schedule of in-person team meetings. "It wasn't like people needed a fundamental change in their day-to-day work," explains the manager. "Thinking back, it's surprising how much of a difference this made, because they were relatively small changes."

Leader behaviors, as well as other conditions, such as onerous demands and value conflicts, can compel team members to opt out of collaboration — a sort of voluntary disenfranchisement. In such cases, interventions should be aimed at team members. For instance, to ensure that everyone is regularly heard, leaders can hold daily scrums, where all team
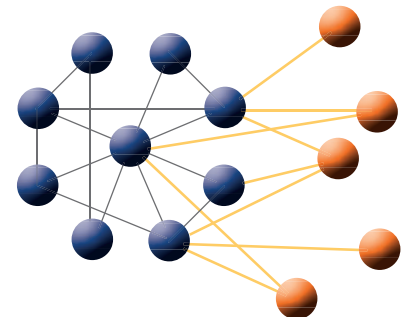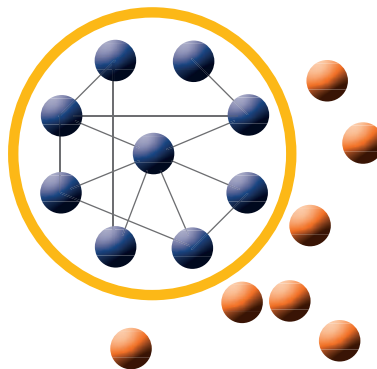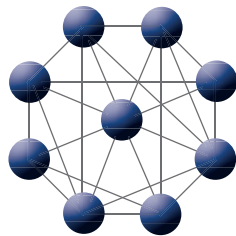
| OVERWHELMED NODES	ISOLATED NETWORKS	PRIORITY OVERLOAD
Team members cannot keep up with the collaborative demands placed upon them, leading to insufficient time for work, inefficient decision-making, excessive compromise, lower engagement, and ultimately burnout.	Impermeable group borders block stakeholder input and external resources/expertise, resulting in flawed decisions, innovation failures, and a lack of integration with the organization.	External stakeholder demands cause group members to lose sight of their mission and highest priorities, resulting in work overload that hurts the quality of execution, delays delivery, and creates employee burnout.
• Group growth that surpasses the limits of team and work design. • Ineffective meeting and communication norms. • Lack of effective collaborative workload metrics. • Fear of making independent decisions or of being left out. • A culture of overinclusion — both within the team and within the larger organization.	• Mandated separation of the group (à la Skunk Works or Agile initiatives). • Hyperfocus on optimizing the outcome based on the group's expertise or values rather than the end need. • Echo chamber created by amplified input from a select few stakeholders.	• Overemphasis on agility. • Lack of North Star clarity/agreement among project leaders with competing demands. • Personal and cultural values that lead to overcommitment.
• Redesign the group's structure and work. • Define and respect roles and responsibilities. • Determine the impact-to-effort ratio of new activities, and empower team members to say no. • Adopt and practice meeting and communication discipline.	• Systematically engage relevant stakeholders/influencers, including both positive and negative opinion leaders. • Build in time for iteration with stakeholders. • Focus on outcomes from the stakeholder perspective. • Provide the group with greater visibility into broader organizational goals and initiatives.	• Map activities with external stakeholders. • Review demands based on the task and collaborative footprint. • Force decision makers to make trade-offs in the content and timing of demands. • Adopt a priority definition process and mechanism/coordinator to screen incoming requests. • Be transparent about workload and competing demands, and reset group priorities collectively.

members briefly say how their work is going, whether they are blocked on anything, and where they need help. One leader in a manufacturing company told us that he took this approach to give disenfranchised people more of a voice. "People connect both on and off work topics in ways that help them trust each other and also see ways that they should be working together. The structure really helped pull people that were drifting back in," he says.

In addition to building participation into processes and roles, leaders should give team members multiple opportunities to provide feedback. The head of a development group in a biopharmaceutical company uses a variety of venues to obtain feedback, including semiannual meetings, one-on-one lunches with emerging leaders, and biweekly meetings with small groups of team members. "I get all kinds of feedback," she explains, "and I always look for an idea or a fix that I can implement within 24 hours. This makes a huge difference."

DYSFUNCTION #3: Misaligned Nodes
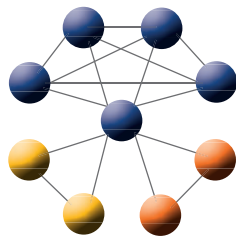
When individuals and factions within a network don't cohere, it's often because team members struggle to create value at the intersection of different technical skills or functional interests. Worse, they may seem to agree on goals and targets when they are together (either sitting in silent disagreement or unknowingly viewing objectives from conflicting perspectives) and then go off to work in disparate ways.

ONA maps of networks that are experiencing these kinds of problems can resemble a high school in which the student body is broken up into cliques that don't relate to one another. Often, they show nodes within cliques that are well connected to one another but are poorly connected to or entirely disconnected from other cliques.

We call this archetype *misaligned nodes*. A vice president in a software company told us that he "struggled mightily" with misaligned technical teams within the engineering function. "We would have different teams in different countries working on almost the exact same problems with the same missions, but they would be reporting to different organizations in the company," he explains. "We were automatically — and unintentionally — setting them up as competitors."

Unsurprisingly, competitive tensions emerged, creating a structural misalignment that undermined collaboration. The VP tried to solve the problem by inserting a manager between the teams, but that only added to the tension; it created a hub-and-spoke dysfunction, and team members chafed at having to submit every decision to a parental authority figure. The VP also tried reorganizing the teams, but ownership issues across business and geographic units stymied this solution — it was a premature fix.

In this case, the misalignment was caused by structural drivers, such as role design, decision-rights allocation, and incentives. Fortunately, the VP didn't give up. He shepherded his group through a collective process of mission, mandate, and goal definition, with help from an external consultant. "We decided what we were all about, what we should care about — and why — and what our group should look like," he says. "After we'd gotten the basic engineering done, we turned to mapping people into roles and teams. This was pretty simple conceptually, but it was transformational because it allowed us to break through the obstacles that were keeping us apart."

Misalignment can also be driven by a lack of awareness of the capabilities that other people provide and the value that can be produced by working together. The head of HR in a global food products business promotes that awareness in his functional teams in several ways. For example, at the start of each week, he and his direct reports pass around a "win jar" that contains sticky notes recording the past week's successes without assigning individual credit. Each team member takes a turn reading one of the notes. This weekly exercise underscores how the team's collaborative efforts benefit the organization, shines a light on the collective expertise the group is delivering, and provides positive reinforcement for collaboration through acknowledgment of shared successes. This executive also periodically convenes whole-team "away days" that mix educational and team-building activities with fun activities aimed at building connections.

DYSFUNCTION #4: Overwhelmed Nodes
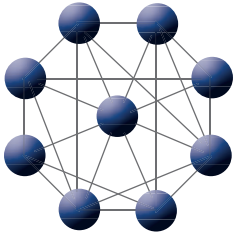
The default belief among many leaders is "the more collaboration, the better," but too much collaboration can gridlock projects just as surely as too little. Excessive demands on team members can lead to an inability to complete work, inefficient decision-making, and high levels of compromise. Obviously, all of this creates a drag on productivity. But it also produces disengagement and burnout, with ensuing harm to employee well-being and health. Excessive collaboration was revealed as a significant predictor of voluntary turnover in a number of the organizations we studied in other research.[9] This archetype of collaborative dysfunction is called *overwhelmed nodes*.

A channel management executive in a global aerospace company confronted this issue when meeting overload began to bog down her team. "Everybody got pulled into a lot of things, and we got to a point where there were excessive numbers of people in multiple meetings," she recalls. Eventually, a workshop conducted to analyze the team's meeting load revealed that 30% to 40% of the time that team members were spending in meetings was unnecessary.

In this case, the problem was driven by poorly defined role and accountability parameters. The manufacturing executive reduced the collaborative demands on her team members by streamlining meeting attendance. "We identified the meetings that our team members needed to attend to move toward our goals. We decided who needed to be in which meetings and why they needed to be there," she says.

Another common cause of overwhelmed nodes is growth. When groups are successful, they often expand. Eventually, however, they outgrow their structures and processes. Our interviews suggest that this begins to happen when group membership exceeds the single digits and becomes truly problematic when groups reach 20 people or more.

"In the past, I've had some special project teams that started with four or five people. When a team is that small, you tend to act in a very collaborative decision-making mode," explains the engineering general manager of a manufacturing equipment company. "But when you try to scale that group to 120 people in 18 months, you discover that it's impossible to get a unanimous opinion from them on virtually any topic. You find that collaborative decision-making gets very inefficient, and you start to see people disconnect. You can try to switch to a priority-based model in which leaders are setting priorities, communicating deliverables, and measuring key performance indicators, but then you get a lot of hurt feelings because people are left out." To make the transitions necessary to manage growth more palatable, the general manager now includes team members in reorganization initiatives. He selects a representative group of team members and works with them to determine what is going wrong with the team and how its problems should be addressed.

The overwhelmed-nodes pattern can also stem from leaders overestimating the capacity of team members or underestimating the time required for collaborative work — even as 85% or more of most people's time is spent in collaborative activities.[10] Team members, too, may contribute to this dysfunction by trying to take on more than they can handle for reasons of their own — such as a deep desire to help or a need for accomplishment, status, or control. A fear of saying no to leaders and can-do workplace mores are common drivers as well.

In many cases, effective workload analytics and metrics can remedy the dysfunction by giving leaders a clearer view of everyone's capacity. Without them, the demands of tasks are often invisible to leaders. Task A and task B may appear to be similar in heft on a sticky note or a project plan. But task A may require coordination across four functions, three time zones, and two leaders who have different priorities, while task B involves only a few people who are colocated and have a strong working relationship.

One leader in a Silicon Valley tech company developed a four-point taxonomy to describe the level of collaborative effort that a task takes. "To define the level, we ask, 'What's the level of effort to build the content? What's the level of effort then to share it, socialize it, get decisions?'" she explains. She uses the taxonomy to ensure that everyone on her team can quickly understand what their peers are doing and has an accurate view of workload.

DYSFUNCTION #5: Isolated Networks
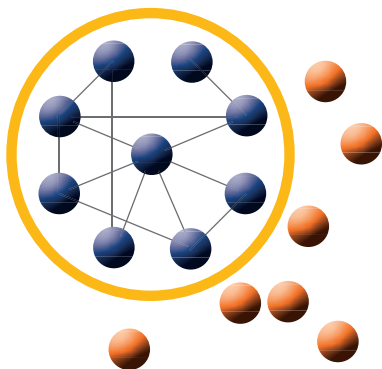
Networks don't exist in a vacuum, but too often we find teams operating without full awareness and consideration of their larger context. They may be poorly connected to their key stakeholders or customers or disconnected altogether, lacking the insight, resources, and external expertise needed to properly define and deliver needed results.[11] Accordingly, we've named this archetype *isolated networks*.

The well-known silo effect is a major consequence of this collaborative dysfunction and one with which many large companies struggle.[12] Several executives at a major carmaker told us that isolated groups within the company were creating obstacles to innovation acceptance and slowing decision-making in new product development programs.

In this case, sequestering teams in spaces designed for ideation and putting them on short sprint deadlines resulted in members not reaching out to the broader organization for information and expertise critical to ensuring that innovation efforts succeed globally. In addition, excessively formal (and ultimately costly) stage-gate approval processes slowed decisions about new product development efforts, which left teams toiling without input for extended periods.

To address the collaborative dysfunction, the carmaker's executives redesigned processes to ensure that relevant external expertise was sought in a timely fashion. Rather than overstaffing these teams with experts — a solution that would have led to other problems — senior leaders brought capabilities into and out of teams as needed. One group even used a "human library," where experts were quite literally checked out on loan. In addition, high-level decision makers stepped in earlier, engaging with prototypes rather than with traditional voluminous engineering and market studies that would delay decisions for months on end. And they staffed teams with an array of network influencers — not just the same experts called upon over and over again — to include truly passionate employees who "knew deeply what the product line stood for."[13]

Isolation is sometimes deliberate and not problematic per se. For instance, Skunk Works and Agile initiatives may be purposely cut off from their parent organizations and the outside world to protect them from external interference or to enhance their focus. But unless this isolation is carefully designed, it can backfire by producing outputs and insights that deliver localized utility while missing more valuable, global impacts. In essence, the strategic mandate of the group cuts it off from broader relevance and outside assistance.
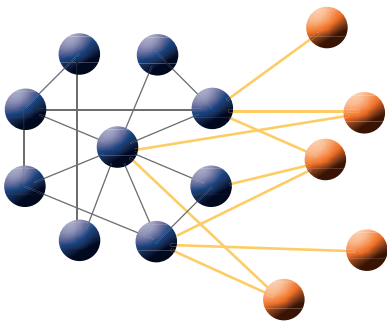
Catering to leaders' whims can lead to isolated network dysfunction as well. "Sometimes we see this … when ideas first surface," explains the talent acquisition director at a major health insurer. "[Leaders] get an idea that they are excited about and think will work — a shiny, bright object, like a new technology. And we end up going after it without really talking to the right people to know if it works for our organization or our customers."

The company's executives remedied this problem with a more rigorous approach to idea development — one that incorporates some of the principles of design thinking. "Before we take off on an effort to improve our customer experience, we spend time talking about it with our customers," she says. "We don't undertake ideas until we've ensured that they will work across the different segments of our business."

Another driver of isolated network dysfunction is an excessive focus on internal expertise or values. The head of a center of excellence at a different health insurer identified this problem in his organization: "We have one process-improvement team that is a model of one-team culture, but the strong value doesn't extend to communication or collaboration with other areas of the organization. They think they're doing a great job, but it's very contained inside their own little group." To remedy the situation, he has involved the team, and particularly its leader, in other process-improvement initiatives. "We are providing more visibility into what's going on outside the team, so there is a better understanding of the external connection points with things that are happening within it," he explains.

DYSFUNCTION #6: Priority Overload

In optimized networks, the boundaries between the group and the external world are permeable. Priorities are determined in consultation with external stakeholders and adopted according to the capacity of the network. This ensures not only that the group is properly aligned with the rest of the organization, but also that it can efficiently and effectively deliver on its goals.

There is a problem associated with permeable borders, however: The more open a group is to its stakeholders, the greater its vulnerability to excessive stakeholder demands. When groups attempt to be responsive to too many stakeholders with competing needs and time frames, they risk falling into a form of collaborative dysfunction we call *priority overload*. Once a group becomes overloaded in this way, team members lose sight of their mission and highest priorities — and as a result, their most important deliverables can be forgotten or ignored. As they find it increasingly difficult to juggle competing demands, their execution and performance falls off, and their engagement and well-being suffer.

The CIO of the food products company mentioned above told us that priority pressures are a constant reality in his functional arena. "We've got a very demanding set of stakeholders. They all think they're more important than the next person," he said. "Unfortunately, we can't just say, 'OK, we'll throw all your demands up onto a project schedule and deliver against it.' The fact is that all the money and time in the world can't overcome the complexity involved in delivering on some of these requests."

Priority overload often arises from a combination of issues: a lack of coordination among disparate stakeholders; an inability to understand the workload of requests (both the tasks and collaborative footprint); overwhelmed stakeholders who make ill-thought-out requests; and, of course, first-level leaders who agree to all requests, because being responsive has been critical to their success to date. "At the moment," the CIO said when we first spoke, "it's not actually the stakeholders that are my problem; it's team leaders who don't understand how to respond to the demand in a logical way."

To help team leaders prioritize, the CIO started using one-on-one coaching sessions. "We identify their key stakeholders, discuss how to analyze demands, and consider the budget and resources needed to meet them," he says. "Then we discuss how to explain it to stakeholders when they can't meet a demand."

To avoid priority overload in the first place, leaders should ask stakeholders to prioritize their requests before sharing them with the team; they should also explain both the level of demand involved in those requests and the capacity of the team to meet them. Some leaders do this by bringing stakeholders into a room and having them collectively shift tasks on sticky notes above and below a line that demarcates the team's capacity. This process tends to rightsize the requests placed on the team. Even more important, it helps stakeholders see how they can combine "asks" to accomplish greater outcomes. Similar alignment can be rapidly attained through short virtual forums using polling software.

The challenge of avoiding priority overload is often compounded by personal aspirations and cultural values. Servant-based mindsets and the

desire to "just say yes" can aggravate the problem. Putting all demand requests through a prioritization process creates a psychological distance and enables clear-eyed appraisals.

Simple heuristics can help team members understand demand parameters and thus better assess requests. One example is a two-by-two matrix that plots requests by impact and effort. Another example comes from a software development company that established a common agreement on speed and functionality for each new release. "The idea is you can turn the volume knob up to 11 on one of these … but not both … when making requests," one manager told us. "Just this language has totally changed what often was a combative issue with some stakeholders."

INCREASINGLY, WORK IS TEAMWORK. But the structures, cultures, and practices in many companies make collaboration within and across teams difficult. The various drivers of collaborative dysfunction reveal the shortcomings of standard solutions such as formal redesigns (think "spans" and "layers"), collaborative tool deployments, and the current craze for Agile methodologies that often underperform because they assume a one-size-fits-all solution. By understanding how the six dysfunctions described above play out and identifying which ones exist at your company, you'll be on your way to creating a truly collaborative workplace.

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REFERENCES

1. "The Three A's of Organizational Agility: Reinvention Through Disruption," Institute for Corporate Productivity, April 2018, https://www.i4cp.com.

2. E. Volini, I. Roy, J. Schwartz, et al., "Organizational Performance: It's a Team Sport," Deloitte, April 11, 2019, www2.deloitte.com.

3. R. Cross, R. Rebele, and A. Grant, "Collaborative Overload," Harvard Business Review 94, no. 1 (January-February 2016): 74-79.

4. R. Cross and R.J. Thomas, "Driving Results Through Social Networks: How Top Organizations Leverage Networks for Performance and Growth" (San Francisco: Jossey-Bass, 2008).

5. R. Cross, A. Edmondson, and W. Murphy, "A Noble Purpose Alone Won't Transform Your Company," MIT Sloan Management Review 61, no. 2 (winter 2020): 37-43; R. Cross, S. Taylor, and D. Zehner, "Collaboration Without Burnout," Harvard Business Review 96, no. 4 (July-August 2018): 134-137; and G. Ballinger, R. Cross, and B. Holtom, "The Right Friends in the Right Places: Understanding Network Structure as a Predictor of Voluntary Turnover," Journal of Applied Psychology 101, no. 4 (April 2016): 535-548.

6. A. Crocker, R. Cross, and H. Gardner, "How to Make Sure Agile Teams Can Work Together," Harvard Business Review, May 15, 2018, https://hbr.org; and R. Cross,

T. Davenport, and P. Gray, "Collaborate Smarter, Not Harder," MIT Sloan Management Review 61, no. 1 (fall 2019): 20-28.

7. The interviewees work in the consulting, consumer products, financial services, health care, hospitality, insurance, life sciences, manufacturing, and software industries.

8. R. Cross, W. Baker, and A. Parker, "What Creates Energy in Organizations?" MIT Sloan Management Review 44 no. 4 (summer 2003): 51-57.

9. Cross, Davenport, and Gray, "Collaborate Smarter, Not Harder"; R. Cross, T. Opie, G. Pryor, et al., "Connect and Adapt: How Network Development and Transformation Improve Retention and Engagement in Employees' First Five Years," Organization Dynamics 47, no. 2 (July-September 2018): 115-123; and Ballinger, Cross, and Holtom, "The Right Friends."

10. Cross, Rebele, and Grant, "Collaborative Overload."

11. M. Arena, J. Sims, R. Cross, et al., "Groundswell: Tapping the Power of Employee Networks to Fuel Emergent Innovation," Connected Commons, April 2017, https://connectedcommons.com.

12. G. Tett, "The Silo Effect: The Peril of Expertise and the Promise of Breaking Down Barriers" (New York: Simon & Schuster, 2015).

13. R. Cross, H. Gardner, and A. Crocker, "Networks for Agility: Collaborative Practices Critical to Agile Transformation," Connected Commons, March 2019, https://connectedcommons.com.

Are Your Team Members Lonely?

Despite the prevalence of team-based collaboration in the workplace, many employees feel isolated on the job.

BY CONSTANCE N. HADLEY AND MARK MORTENSEN

While loneliness is often thought of as a personal issue, it is an organizational issue as well. A lack of social connection — whether with friends, family members, or coworkers — can have serious consequences. It is associated not only with health problems,[1] including heart disease, dementia, and cancer, but also with poor work performance, reduced creativity, and flawed decision-making.[2] Quite simply, people who feel lonely cannot do their best work, which means that teams with lonely members are not operating at their peak levels either.

You might think that working on a team would stave off loneliness by fostering a sense of community and camaraderie. But in our research, we have found that the composition, duration, and staffing of teams can trigger or exacerbate feelings of social disconnection in the workplace. Therefore, we caution managers to view loneliness as a systemic and structural problem that may require a new approach to teamwork.

Team Members Are Feeling Isolated

To explore the relationship between the way teams are designed and loneliness, we have undertaken two research studies involving nearly 500 global executives and informal interviews with many other managers through our executive education and consulting work. In our first survey study of 223 executives,
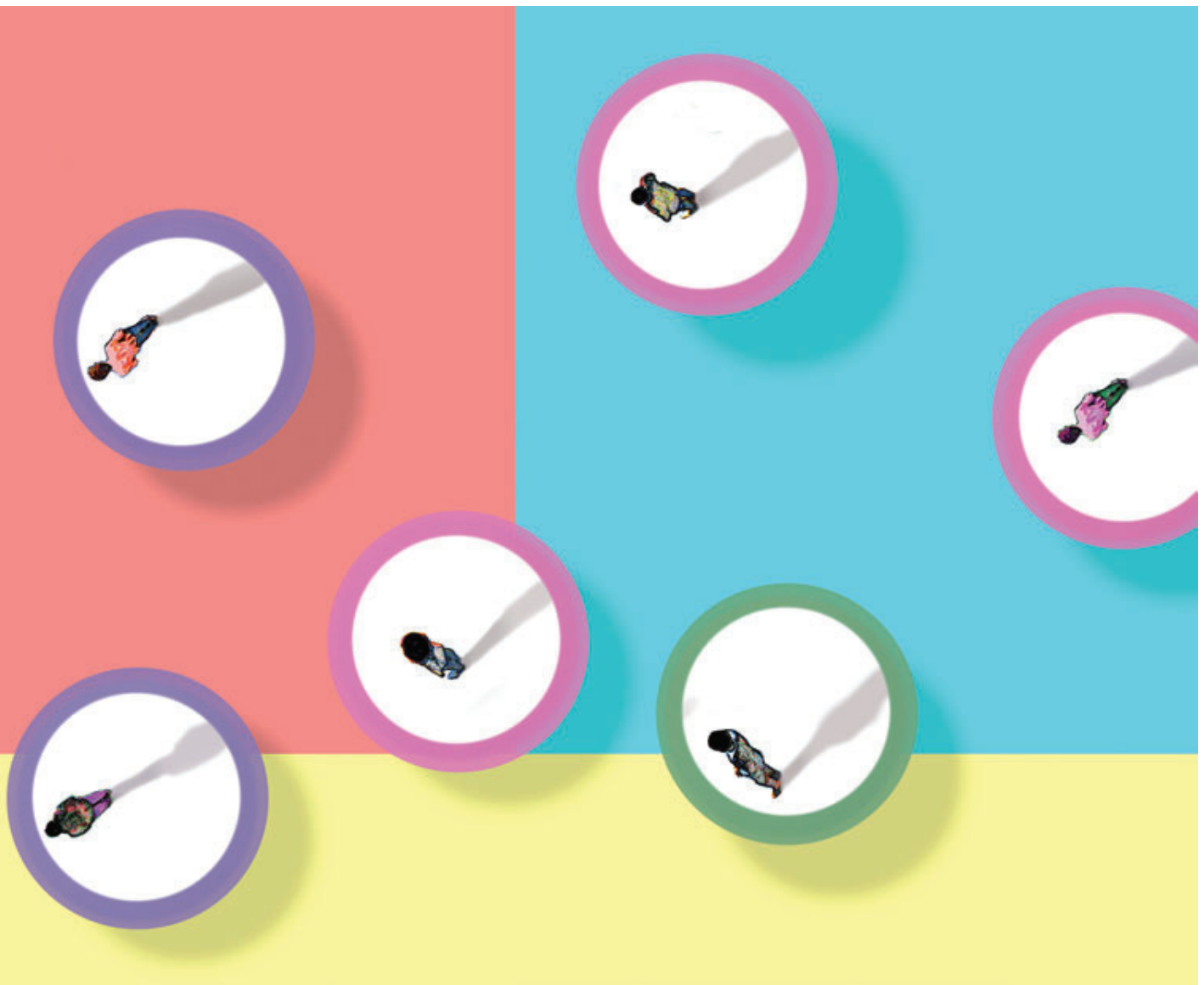
conducted in December 2019 and January 2020, we found that, even prior to the major shift to working from home and social distancing brought on by the COVID-19 pandemic, people were struggling with feelings of social isolation at work. For example, 76% reported that they had difficulty making connections with their work teammates, and 58% agreed with the statement "My social relationships are superficial at work." Yet these executives were serving on an average of three teams at the time. In examining the features of those teams, we saw that aspects such as low membership stability and lack of role clarity were significantly correlated with greater expressions of loneliness among respondents.

The problem of loneliness has been further fueled by the pandemic. When we sampled a different group of almost 275 global executives in April 2020, we again found strong prevalence of teamwork: 72% were working on two or more teams at the time, with nearly 20% working on five teams or more.[3] Respondents also conveyed feeling lonely and isolated. Most were continuing to work with their teammates remotely. One noted that the biggest challenge was in trying to "connect on a personal level with coworkers." Certainly, working remotely instead of face-to-face can by itself undermine social connections.[4] But that is not the whole story, so resuming in-person work won't fix the loneliness problem. Modern team design is an underlying factor that must be addressed. Let's look at how it has changed in recent years and what the downsides are.

The Costs of Modern Team Design

High-performing teams achieve three distinct types of success: excellent work products, member growth and development, and positive intrateam dynamics. This model of team effectiveness, developed by Harvard psychologist Richard Hackman and others more than 30 years ago, is still considered the gold standard.[5] However, it was built on studies of teams back when they were typically defined by stable (usually full-time) membership, robust roles, a common mission, interdependent work, sustained activity, and a manageable size.

Since then, the ecology of teams has changed.[6] As corporate work has become more global, dispersed, and round-the-clock in nature, teams have been asked to grow in scope, to be more dynamic and flexible, and to work more cost-effectively.

Consequently, four features of contemporary teams have emerged:

Fluid composition. As teams have sought to minimize overhead and increase flexibility, many have been designed to include a fluid set of members who roll on and off the team as the project needs demand. A telltale sign of a fluid team is when each member gives a different answer as to who is on the team[7] or when answers change over the course of a team's life, something we have seen in our own research when we try to nail down who is going to participate.

Modularized roles. As teams have sought to become more efficient and scalable, roles are sometimes modularized into discrete components or skills needed ("someone savvy with the new billing system," for instance, or "a representative from sales"). This allows for job sharing, as well as the possibility of continuous, 24-hour work if individuals in different time zones can perform the same role on a rotating basis.

Part-time commitment. In an attempt to get more out of each employee, many organizations stock their teams with part-time members who simultaneously serve on more than one team. This means that, on any given team, the members are only partially committed in terms of their time and effort. It also means that members are constantly juggling competing demands and timetables from other teams.

Short duration. To quickly respond to changes in the marketplace, many teams are expected to form and disband within short intervals, such as a few weeks. This is particularly true in agile teams, but other teams may also last for only a brief period, such as those attached to business development or market strategy projects.[8]

These team features often do, as intended, make organizations faster, more flexible, and more efficient. So organizations are finding it easier to increase and improve output, the first criterion for team effectiveness. Moreover, employees may experience greater autonomy, more flexibility, and increased exposure to a diverse set of projects and colleagues because of their team arrangement. Those who do may benefit through growth and development, the second criterion of team effectiveness.

But what about the third criterion, positive intrateam dynamics? Such dynamics can aid team survival, despite the demands that collaborative work tasks and high-pressure environments can bring.[9] People who feel positively connected to each other are more likely to stick together through adversity and provide the type of support that reduces burnout and turnover.[10] Furthermore, creativity and knowledge transfer can improve when teams have a chance to bond and build trust together.[11]

Unfortunately, the four features of modern teamwork are unlikely to generate these positive dynamics. They tend to foster shallow, narrow, and ephemeral relationships rather than true human connections. Creating positive intrateam dynamics takes time and effort — resources that are in short supply when teams rapidly form and disband, and members dip in and out. (See "Four Ways That Teams Foster Loneliness.")

One issue that can exacerbate loneliness is a discrepancy between what people think they should feel (camaraderie and connection), especially if they are serving on many teams, and what they *actually* feel. Often, lonely individuals think it is "just them" — that their experience is due to their character traits rather than their situation.[12] But it isn't just them; their experience is common. In the workplace, therefore, the answer to loneliness is not to place people on *more* teams, which would make it even harder to move beyond shallow connections, but to change how teams are formed.

What Managers Can Do About Loneliness

Not every team or organization is structured in a way that undermines social connections. Furthermore,

not every employee working on teams, even ones with each of the four design features prevalent today, will experience what psychologists call a "relational deficiency."[13] Individuals' specific needs for personal connection at work vary based on factors such as personality, cultural background, and stage of life. But given how widespread the problem of employee loneliness has become, it is incumbent on managers to recognize and address structural drivers of isolation where they exist.

Here, we provide some suggestions for tackling these issues.

Start measuring the problem. Due to the salience of quantifiable team-performance markers such as speed, productivity, and cost efficiency, it is easy to overlook harder-to-assess indicators like whether team members are well integrated and supportive. We all know the business adage "If you can't measure it, you can't manage it." So one way for managers to combat loneliness in their organizations is to start benchmarking and tracking its presence more systematically.

Research studies offer some simple survey tools that can help,[14] but managers should also talk to their employees to develop their own "sensors" for the quality of connections and degree of loneliness among their teams. This kind of proactive effort is especially important in remote teamwork contexts because, as one manager we spoke with commented, "The level of empathy and care has a certain ceiling when all you have are faces on the screen." Once managers start assessing the base rates of loneliness in their organizations, they can address any worrisome results they find.

Identify and nurture core teams. One potential intervention involves creating core teams (or "home base teams"), particularly for those employees who crave deeper connections to their colleagues. A core team could be defined by structural factors, such as where people spend the majority of their time, or by social factors, such as shared affinities and interests. In earlier research, we found that participants associated core teams with important psychological and social benefits. One participant described his core team as one in which members shared comfortable similarities in background and work ethic. Others called their team their "authentic community" and a collection of "my favorite colleagues."[15]

For a core team to trigger such positive connotations, it should include pro-relationship design

FOUR WAYS THAT TEAMS FOSTER LONELINESS

In our studies, participants explained why the following features of modern team design made them feel disconnected from their groups.

TEAM FEATURES	IMPACT ON TEAM MEMBERS
Fluid composition	"I do not know who is on my team. Every Monday, somebody comes and tells me that he was assigned to something and the other guy who worked on that before just left for something else. Without long-term commitment, it is very hard to get connected."
Modularized roles	"I am interchangeable. They have made it so anyone can do my job on the team. Maybe they would miss me, but I am not so sure."
Part-time commitment	"For the underprioritized teams, it was difficult to have enough time to share and connect deeper."
Short duration	"All teams are temporarily established based on project allocation, and projects are short (four weeks on average), leaving limited time for team members to develop social connections."

elements such as a shared identity, a longer duration, and a common mission. In this type of environment, more enriching relationships are likely to grow. To protect and nurture core teams, the organization must align the human resources systems and workflows accordingly. For example, job descriptions could be written to enable employees to dedicate 50% or some other substantial percentage of their time to one core team. When appropriate, projects could also be designed to support the creation of a stable team roster with well-defined roles and a time horizon lasting months or years instead of weeks.

Engage team leaders in combating loneliness. Given the nature of loneliness and the complexity of organizational life, we cannot expect individual employees to "cure" their loneliness on their own — even if a monitoring process is in place and core teams are available. To solve a systemic issue such as workplace loneliness, a systemic response is required. That means leaders and managers who control team designs and placement must be asked to take more responsibility for employee well-being and social interconnection. This need not be onerous or heavy-handed — it can be as simple as a periodic check-in with the team on how members are feeling. But team leaders must be sincere and patient in their efforts to get people to open up, since loneliness is not something that people usually want to discuss. A good way to remove any perceived stigma is to make such check-ins a normal part of the team's processes.

It is also important to recognize that team leaders' authority and access to information enable them to tackle some of the issues that arise between teams. Take, for example, the common situation where firefighting on one team constantly pulls shared members off other teams' projects, impeding their ability to form necessary connections. Team managers need not be responsible for teams other than their own, but they should take shared responsibility for employees' social welfare. That includes being open to discussions about spillover effects and being willing to take action, perhaps by changing team membership or working with leaders of members' core teams to better align project schedules. Organizations can reinforce this shared responsibility by evaluating and compensating team leaders not just on team output but also on the degree to which they foster positive interpersonal dynamics both internally and across the organization.

SEEMINGLY BENEFICIAL organizational structures can incur hidden costs, as our research shows, degrading the psychological well-being of employees and the social fabric of the workplace. Leaders should consider carefully if it is necessary or even desirable to incorporate elements such as fluid composition, modularized roles, part-time commitment, and short duration in their team designs. For the sake of all those lonely workers — and ineffective teams — out there, we encourage leaders to proactively monitor and foster satisfying connections among employees. The promise of high-performing teams still exists, but it takes a sensitive, deliberate approach to designing teams to realize that potential.

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REFERENCES

1. E. Carson, "How Loneliness Could Be Changing Your Brain and Body," CNET, June 15, 2020, www.cnet.com; J. Holt-Lunstad, T.B. Smith, and J.B. Layton, "Social Relationships and Mortality Risk: A Meta-analytic Review," PLoS Medicine 7, no. 7; V. Murthy, "Work and the Loneliness Epidemic," Harvard Business Review, The Big Idea (September 2017): 3-7; and S. Cacioppo, A.J. Grippo, S. London, et al., "Loneliness: Clinical Import and Interventions," Perspectives on Psychological Science 10, no. 2 (March 2015): 238-249.

2. H. Ozcelik and S.G. Barsade, "No Employee an Island: Workplace Loneliness and Job Performance," Academy of Management Journal 61, no. 6 (December 2018): 2343-2366.

3. M. Mortensen and C.N. Hadley, "Life Under COVID-19 Survey Results Report," May 12, 2020, www.covidcoping.org.

4. K. Vasel, "The Dark Side of Working From Home: Loneliness," CNN Business, April 30, 2020, www.cnn.com. See also J. Mulki, F. Bardhi, F. Lassk, et al., "Set Up Remote Workers to Thrive," MIT Sloan Management Review 51, no. 1 (fall 2009): 63-69.

5. J.R. Hackman, "Leading Teams: Setting the Stage for Great Performances" (Boston: Harvard Business Press, 2002).

6. R. Wageman, H. Gardner, and M. Mortensen, "The Changing Ecology of Teams: New Directions for Teams Research," Journal of Organizational Behavior 33, no. 3 (April 2012): 301-315.

7. M. Mortensen, "Constructing the Team: The Antecedents and Effects of Membership Model Divergence," Organization Science 25, no. 3 (May-June 2014): 909-931.

8. N. Scheiber, "The Pop-Up Employer: Build a Team, Do the Job, Say Goodbye," The New York Times, July 12, 2017.

9. M. Haas and M. Mortensen, "The Secrets of Great Teamwork," Harvard Business Review 94, no. 6 (June 2016): 70-76.

10. C.N. Hadley, "Emotional Roulette? Symmetrical and Asymmetrical Emotion Regulation Outcomes From Co-worker Interactions About Positive and Negative Work Events," Human Relations 67, no. 9 (September 2014): 1073-1094.

11. A.C. Edmondson, "The Fearless Organization: Creating Psychological Safety in the Workplace for Learning, Innovation, and Growth" (Hoboken, New Jersey: John Wiley & Sons, 2018).

12. Vasel, "The Dark Side." This tendency is also seen in social media, where depression and self-blame can occur when connections to others are high but fulfilling relationships are not. A. Walton, "6 Ways Social Media Affects Our Mental Health," Forbes, June 30, 2017, www.forbes.com.

13. S. Wright and A. Silard, "Unravelling the Antecedents of Loneliness in the Workplace," Human Relations OnlineFirst, Feb. 21, 2020, https://journals.sagepub.com.

14. See, for example, G.W. Marshall, C.E. Michaels, and J.P. Mulki, "Workplace Isolation: Exploring the Construct and Its Measurement," Psychology & Marketing 24, no. 3 (March 2007): 195-223; and D.W. Russell, "UCLA Loneliness Scale (Version 3): Reliability, Validity, and Factor Structure," Journal of Personality Assessment 66, no. 1 (1996): 20-40.

15. J. Wimmer, J. Backmann, M. Hoegl, et al., "Spread Thin? The Cognitive Demands of Multiple Team Membership in Daily Work Life," LMU-ILO working paper, Munich, Germany, 2017.

Virtual Collaboration Won't Be the Death of Creativity

Shifting to remote work can help groups generate better ideas — and more of them.

BY LEIGH THOMPSON

The COVID-19 pandemic put professionals in a box — a virtual one. Overnight, managers and their teams shifted from in-person brainstorming and ideation sessions to those taking place electronically via Zoom, WebEx, and other tools.

You might assume that major changes in how we work are taking a large toll on business creativity, in light of the loss of more spontaneous face-to-face connections and interactions. One of my most outspoken executive students — a young, data-driven manager at a technology consulting company — seemed to be making that assumption when he asked how I thought virtual work "thwarted" creative processes like those his teams engage in with their clients, such as defining problem scope, exploring solutions, prototyping, and testing. My answer surprised him: Based on research I and others have conducted over the past couple of decades, I believe that the shift to remote work actually has the potential to *improve* group creativity and ideation, despite diminished in-person communication.[1]
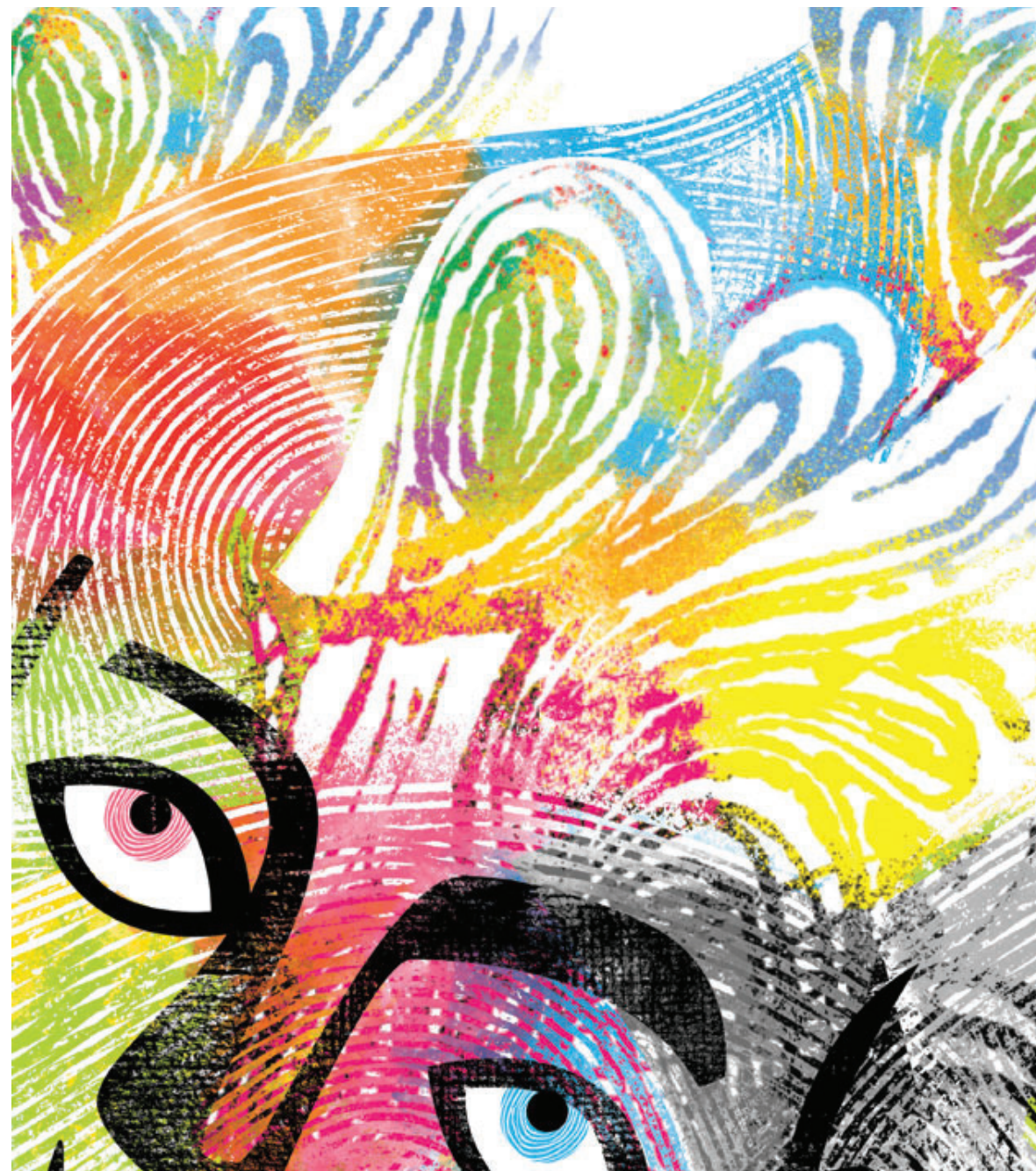
Remembering What Really Drives Creativity

Scholars define *creativity* as the production of novel and useful ideas.[2] *Novel*, in this context, means statistically rare and unique; *useful* means that some stakeholders see practical value in the ideas. In business, innovation is the realization of creative ideas as products and services. Think of the creative process like a river, starting with the upstream generation of ideas, often seemingly outlandish ones; proceeding to the testing and refinement of certain ideas midstream; and eventually moving downstream to the full development of chosen ideas.[3]

Virtual collaboration needn't hinder any of that, nor is it at odds with the following well-established ideas about what drives creativity.

Creative ability isn't fixed or inborn. Creativity is influenced by factors under one's control. In one study, for example, some participants were told that raw talent and ability determine creative outcomes, while others heard that factors such as motivation and persistence drive creativity.[4] Both groups then completed a creativity task scored by judges who didn't know what participants had been told. The group that believed creativity was under their control significantly outperformed the other. The conclusion from many such studies is that mindset

matters. And you don't need to collaborate in person to embrace a proactive mindset about creativity — you can do that independently, from anywhere.

Individuals are more creative than groups. When I ask business leaders in executive workshops who is more creative, groups or individuals, almost no one chooses individuals. It's widely believed that synergy among group members generates more creativity than individuals can. But virtually no research supports this. In fact, most studies have found that "per capita" creativity declines precipitously as group size increases.[5] Group dynamics can actually *diminish* overall creativity by stifling certain voices while amplifying others. In contrast to in-person meetings, where people tend to engage in simultaneous cross talk, virtual meetings make it nearly impossible for more than one person to speak at once. We're forced to focus on individual input, so it's easier for less vocal participants to be heard than in the physical world, where they're often drowned out. That addresses at least part of the challenge of having all voices represented and heard in creative meetings.

Constraints spark creative thinking. Working within limits pushes us to solve problems in ways we wouldn't if given free rein. For example, financial restrictions activate a tendency to think "big picture" and then trim down rather than follow a more organic idea-generation process that can result in a larger price tag.[6] And time pressure often prods more-efficient idea generation.[7] Moreover, imposing communication rules, such as "do not explain ideas," increases creative-idea generation — and groups that are interrupted with brief breaks produce more ideas, as do those that engage in electronic brainstorming (considered more constrained than in-person free-for-alls).[8]

Overall, virtual meeting platforms impose more constraints on communication and collaboration than face-to-face settings. For instance, with the press of a button, virtual meeting facilitators can control the size of breakout groups and enforce time constraints; only one person can speak intelligibly at a time; nonverbal signals, particularly those below the shoulders, are diminished; "seating arrangements" are assigned by the platform, not by individuals; and visual access to others may be limited by the size of each participant's screen. Such environmental restrictions are likely to stretch participants beyond their usual ways of thinking, boosting creativity.

How to Enhance Virtual-Group Creativity

If virtual collaboration doesn't kill creativity — and can actually boost it — how can teams maximize that upside? Here are some practical suggestions, drawn from the broad body of research on creativity and innovation. These ideas are useful for in-person collaborations, too, but given that virtual business meetings are now ubiquitous and in many organizations have replaced face-to-face conversations, we'll focus on the benefits of these tactics for remote creativity.

1. Prevent production blocking. As noted earlier, social scientists have long known that individuals are better than groups at creative-idea generation. Classic meta-analyses suggest that's true regarding the quantity and quality of ideas, as do recent empirical works. Studies have carefully compared the performance of people working independently with that of interactive groups, measuring per-person productivity (typically as *creative production percent*, based on the volume of ideas per person) and quality of ideas (assessed by independent experts blind to participant identities and experimental hypotheses) over a fixed period. Inevitably, individuals outperform groups.

Several social-psychological factors drive this consistent result.[9] A primary one is *production blocking*, or anything that interferes with a person's focus on creative-idea generation, including subtle factors.[10] One is conversation itself, which involves having to listen to others politely. Working remotely requires less of this. With less pressure for constant conversational engagement in virtual communication, people can more easily focus on generating ideas. Even so, there's still a performance aspect to virtual collaboration, with everyone's face on display; people may expend energy managing how they come across. Take steps to minimize that source of production blocking, such as by reserving large blocks of time for individual work, away from the shared screen.

2. Crush conformity. Excessive like-mindedness destroys creativity. Such conformity occurs when people believe that they must aim behavior at winning their group's acceptance. Fortunately, virtual collaboration involves less pressure to conform. That's partly because the group is less

> Excessive like-mindedness destroys creativity. Such conformity occurs when people believe that they must aim behavior at winning their group's acceptance. Fortunately, virtual collaboration involves less pressure to conform.

immediately present than in-person groups (yielding fewer cues about acceptance, such as eye contact only among certain members), and partly because of the *online disinhibition effect,* or the idea that people are more likely to express themselves and not worry about getting others to like them when interacting digitally.[11] It's true that virtual collaborators are often fully visible to one another and can't "hide" behind text-only forms of communication like email. However, the disinhibition effect still exerts influence, since many of the politeness rituals of in-person communication, such as vocalizing agreement and engaging in small talk, are no longer present.

3. Facilitate idea expression through *brainwriting*. Brainwriting is the more sophisticated cousin of brainstorming. In brainstorming, people throw out ideas in a free-for-all manner, ideally refraining from criticism; the belief is that off-the-cuff ideas might spark truly innovative ones. One problem with brainstorming is that people often self-censor out of concern about the group's response, as I noted above regarding conformity. And even when individuals are willing to speak up, they may not get the floor, given the chaotic flurry of ideas being shared.

Brainwriting resolves these issues through the simultaneous generation of ideas by individual group members. The group sets aside time for individuals to write down ideas; afterward, they come together to discuss them. But when it's time to share, in-person settings still induce self-censorship and the impulse to be "too nice" in assessing others' ideas. Virtual communication is ideal for brainwriting, because participants can anonymously contribute to a common virtual whiteboard or shared document without significant group influence. And when they meet to discuss ideas, doing so virtually helps them express their opinions more honestly (again, because of fewer group-acceptance cues).

4. Preempt insider-outsider bias. Research suggests that people evaluate ideas from colleagues more harshly than those from outsiders, particularly competitors.[12] They may feel compelled to devalue colleagues' ideas partly because they fear that the advancement of ideas by group members will lead to their own loss of status within the organization. One solution is to anonymize ideas so that each one can be evaluated independently of its source. In a face-to-face meeting, however, this can be very difficult, especially when ideas are shared on the spot. But the same virtual-communication principle that applies to brainwriting applies here: Digital tools enable people to contribute ideas from a safer distance, without revealing authorship, thus mitigating insider-outsider bias.

5. Promote high-construal thinking. Research indicates that low-construal thinking results in less creativity than the high-construal variety.[13] Think of low- and high-construal as degrees of focus of a camera lens: Low-construal thinking, like a telephoto lens, emphasizes details; high-construal thinking, the wide-angle lens, captures the bigger picture.

One study found that people think of more creative ideas when they believe they are interacting with someone at a greater physical distance, because this activates higher-construal thought processes (big-picture focus and abstract thinking).[14] Virtual communication inherently involves the perception of greater distance than in-person interactions. You can enhance this by asking each virtual meeting participant to announce their location: "Hello, this is Juliana from Panama," and so on.

6. Foster diverse interactions. My research with psychology professor Hoon-Seok Choi at Sungkyunkwan University suggests that the presence of a single newcomer can stimulate group creativity, yielding a larger number and variety of ideas.[15] In general, diversity enhances the creative

process. Yet in a typical face-to-face meeting, people sit by their friends and colleagues, often engaging in sidebars or shared nonverbal interactions, which have the unintended consequence of promoting conformity and narrowing creative focus. In a virtual meeting, you can't choose your seat, and having sidebar conversations is not nearly as tempting, given the shared screen and risk of accidentally messaging a private thought to everyone. Moreover, the group-breakout function defaults to sorting people randomly. These factors make it more likely that people in virtual settings will interact with participants they don't know well, boosting creativity.

7. Keep idea vaults and boneyards. Pre-COVID-19, many in-person brainstorming meetings were not recorded, erasing any trace of discarded ideas. That fails to maximize group output, because returning to ideas that were previously suggested increases group performance.[16] Why? Silence is the biggest killer of creative-idea generation; giving voice to ideas (even old ones) spurs new insights. Luckily, chat windows, electronic whiteboards, and other virtual-collaboration tools serve as vaults and "boneyards," memorializing sessions and making it easier to revisit previously overlooked ideas.

NONE OF THIS is to suggest that virtual communication is a cure-all for addressing creative-collaboration issues, or that managers and their teams should aim to work in their own "lighthouses" whenever possible, shunning face-to-face contact. However, virtual collaboration does provide benefits that many of us didn't realize or pursue in pre-COVID-19 times. Our creative output may be all the better for it.

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REFERENCES

1. For a review, see L. Thompson, "Creative Conspiracy: The New Rules of Breakthrough Collaboration" (Boston: Harvard Business Review Press, 2013).

2. T.M. Amabile, "The Social Psychology of Creativity: A Componential Conceptualization," Journal of Personality and Social Psychology 45, no. 2 (August 1983): 357-376.

3. L. Thompson and D. Schonthal, "Setting the Stage for Creativity: Upstream, Mid-Stream, and Downstream," chap. 2 in "Strategy and Communication for Innovation: Integrative Perspectives on Innovation in the Digital Economy," 3rd ed., eds. N. Pfeffermann and J. Gould (New York: Springer, 2017).

4. A.J. O'Connor, C.J. Nemeth, and S. Akutsu, "Consequences of Beliefs About the Malleability of Creativity," Creativity Research Journal 25, no. 2 (April-June 2013): 155-162.

5. W. Stroebe and M. Diehl, "Why Groups Are Less Effective Than Their Members: On Productivity Losses in Idea-Generating Groups," European Review of Social Psychology 5, no. 1 (1994): 271-303.

6. I. Scopelliti, P. Cillo, B. Busacca, et al., "How Do Financial Constraints Affect Creativity," The Journal of Product Innovation Management 31, no. 5 (December 2013), 880-893.

7. P.B. Paulus, T. Nakui, V.L. Putman, et al., "Effects of Task Instructions and Brief Breaks on Brainstorming," Group Dynamics: Theory, Research, and Practice 10, no. 3 (September 2006): 206-219.

8. Paulus et al., "Effects of Task Instructions," 206-219; and K.L. Siau, "Group Creativity and Technology," Journal of Creative Behavior 29, no. 3 (September 1995): 201-216.

9. For a review, see Thompson, "Creative Conspiracy"; and L. Thompson and D. Schonthal, "The Social Psychology of Design Thinking," California Management Review 62, no. 4 (summer 2020): 84-99.

10. P.B. Paulus and H. Yang, "Idea Generation in Groups: A Basis for Creativity in Organizations," Organizational Behavior and Human Decision Processes 82, no. 1 (May 2000): 76-87.

11. J. Suler, "The Online Disinhibition Effect," CyberPsychology and Behavior 7, no. 3 (July 2004): 321-326.

12. T. Menon, L. Thompson, and H. Choi, "Tainted Knowledge vs. Tempting Knowledge: People Avoid Knowledge From Internal Rivals and Seek Knowledge From External Rivals," Management Research 52, no. 8 (August 2006): 1129-1144.

13. J.S. Mueller, C.J. Wakslak, and V. Krishnan, "Construing Creativity: The How and Why of Recognizing Creative Ideas," Journal of Experimental Social Psychology 51, no. 2 (March 2014): 81-87.

14. L. Jia, E.R. Hirt, and S.C. Karpen, "Lessons From a Faraway Land: The Effect of Spatial Distance on Creative Cognition," Journal of Experimental Social Psychology 45, no. 5 (September 2009): 1127-1131.

15. H. Choi and L. Thompson, "Old Wine in a New Bottle: Impact of Membership Change on Group Creativity," Organizational Behavior and Human Decision Processes 98, no. 2 (November 2005): 121-132.

16. P.B. Paulus, T. Nakui, and V.L. Putman, "Group Brainstorming and Teamwork: Some Rules for the Road to Innovation," chap. 4 in "Creativity and Innovation in Organizational Teams," 1st ed., eds. L. Thompson and H. Choi (Hove, England: Psychology Press, 2005).

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Team Alchemy: The Art and Science of Effective Collaboration

In this Viewpoint, two Deloitte leaders discuss a new approach designed to dramatically improve how teams work together.

What makes a team successful? Many things — or maybe just one big thing, depending on who you listen to.

Some argue that agility is the key. Others say it's psychological safety. Or maybe it's the quality of team interactions outside of work, or having a diversity of perspectives and cognitive styles, or establishing a clear set of objectives and key metrics to make sure everyone is headed in the right direction.

There's no shortage of popular theories on teaming out there — including many overly simplistic ones. Meanwhile, one academic-literature review of more than 100 studies conducted over the past decade has tried to parse out the statistical significance of 68 distinct factors that drive team performance. Good luck with that!

In reality, teams succeed or fail for a variety of reasons, and which factors matter most depends largely on a particular team's context and objectives.

For example, consider trust. How much does it matter? A great deal, if you're a Navy SEAL and your life could depend on the person next to you. Not as much, though, if you're a sales rep on a widely dispersed field team that gathers just a few times a year.

How important is active support from your executive sponsors? At times, it can make or break a team. At other times, all you need from them is to leave you alone so you can get stuff done.

What about agile collaboration? If you're a basketball player, it's critical because court conditions are constantly shifting. If you're a baseball player, you're more focused on playing your position.

You get the idea: Context matters. Yet the literature on teams — both academic and popular — tends to gloss over this reality, offering instead either silver-bullet solutions or daunting laundry lists of factors.

At Deloitte, we've been working hard to find a better way to provide teams with the guidance they need. We call our approach *Team Alchemy*, recognizing that our current understanding of team effectiveness remains in the domain of protoscience. In other words, we start by acknowledging that although many aspects of team effectiveness are well known today, other aspects remain mysterious and need to be explored systematically, with humility and an open mind.

Our approach has been to define a framework that's broad enough to encompass all of the most critical factors for team effectiveness while also being simple enough for managers to understand and apply in the wild. Over the past couple years, we've tested and refined this framework — and the survey questions that illuminate it — with a few thousand people in surveys and then with a few dozen teams in deeper engagements.

> **"In reality, you can be the most collaborative team on the planet — a model of 'Kumbaya' togetherness — but if you don't have the proper resources or organizational support, it won't matter."**

This framework has three broad categories, each of which draws on a familiar phrase and contains a few subcategories:

• **Is the team ready?** Do members have the clarity they need to succeed in terms of goals and objectives? Governance and decision rights? Roles, responsibilities, and core work processes? These are foundational elements that should be in place before any team gets started — but all too often aren't.

• **Is the team able?** Do members have the diverse capabilities they need to achieve their mission, including supporting resources and the ability to adapt on the fly as things change?

• **Is the team willing?** Do members have the required commitment to succeed? This includes motivation, purpose, and a sense of trust and camaraderie — the reasons that we bother to show up for work in the first place.

Note that not all factors are internal to the team. That's important, given that many theories seem to assume that the responsibility for team success lies solely with the team. In reality, you can be the most collaborative team on the planet — a model of "Kumbaya" togetherness — but if you don't have the proper resources or organizational support, it won't matter.

The Team Alchemy process is straightforward. We conduct an anonymous survey consisting of about 60 questions with all team members, analyze the results, benchmark them against those of other teams in our database, and lead a facilitated conversation lasting anywhere from an hour to a full day.

Our preliminary findings are intriguing. In the few dozen sessions we've run to date, clear patterns have already emerged:

• **Most teams felt that they were doing "OK."** Very few teams believed they were either strong or weak across all major contributing factors. Instead, most teams reported medium-high levels of strength on most factors.

• **All teams found significant areas for improvement.** To date, not one team has reviewed its results and decided that no changes are needed to boost its performance.

• **All teams quickly identified action items.** Once issues were pinpointed in hard survey results, teams felt greater permission to identify and commit to corrective actions.

• **Certain factors were more frequently identified as pain points.** Specifically, many team members seemed disappointed with the clarity of their goals and access to resources (factors that are less likely to be within their control) while being generally pleased with their team's motivation and purpose (factors that are more likely to be within their control).

• **No team had ever undergone as thorough a review of their success factors before experiencing Team Alchemy.** That's not surprising, given the lack of comprehensive tools for team effectiveness. As the cybersecurity director for a leading technology company put it: "Being able to see all the feedback and discuss it was awesome. The framework allows you to quickly lead a team to think big and generate ideas on how to drive change, which is table stakes for strategic planning."

Our initial results have been so encouraging that we've embarked on a larger journey. Over time, our goal is to deploy this approach with enough teams that we can begin to identify the larger patterns of obstacles to team effectiveness — and actions to take

to address them — depending on specific aspects of each team: size, composition, and nature of work, among other factors.

As our Team Alchemy database grows from dozens to hundreds of teams (and, we hope, far beyond), we expect to spot patterns in what makes specific different kinds of teams successful — including, among others, the following types:

- **Leadership teams.**
- **Virtual teams.**
- **Large-scale transformation teams.**
- **Ongoing execution teams.**
- **Innovation teams.**

Addressing these issues has never been more important to the success of all types of organizations than during this time of dramatic workplace change due to the global COVID-19 pandemic.

We don't believe for a minute that we have all the answers to the age-old question of what makes teams succeed, or that we ever will. But we are confident that we're heading in an interesting direction that will continue to deliver results.

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The authors would like to acknowledge the contributions of their fellow Deloitte colleagues:

Kira Gerbron, Deloitte Human Capital – Leadership and Learning
Tom Reynolds, Deloitte Human Capital – Leadership and Learning
Suzanne Vickberg, Deloitte Greenhouse
Sonya Pillay, Deloitte Greenhouse

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