Where Has the Time Gone?

ADDRESSING COLLABORATION OVERLOAD IN A NETWORKED ECONOMY

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As a result of the spread of social media and collaboration technologies in the workplace, the adoption of matrix-based structures, and the proliferation of initiatives to create a “one firm” culture, many organizations are experiencing collaboration overload. Too often, excessive collaboration harms organizational performance, overworking employees for only marginal gains. High-performing employees are especially vulnerable because they already shoulder a disproportionate collaboration burden. This article shows how traditional approaches to improving collaboration often invisibly slow decision making and hurt performance, and describes how companies can identify and address points of collaboration overload and use structural and behavioral interventions to streamline information-sharing and decision-making interactions. (Keywords: Networks, Communication in Organizations, Organizational Design, General Management)

“There is one kind of robber whom the law does not strike at, and who steals what is most precious to men: time.”—Napoleon I, Maxims, 1815

In a typical workweek, what percentage of your time do you spend on the phone, on e-mail, or in meetings (virtual and face-to-face)? Our research shows that for white-collar employees this figure is now between 70% and 85%; for some experts and leaders it can be as high as 95%.

Over the past two decades, organizations have become much more collaboratively intense, often through the implementation of matrix-based organizational structures, the diffusion of collaboration and social media tools, and efforts to create “one firm” cultures. Such investments are often intended to better integrate the efforts of highly specialized employees in order to improve innovation. Yet one unintended outcome has been collaboration overload. Some employees are spending

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so much time interacting with one another that they must do the rest of their jobs when they get home at night.  

Collaboration overload can erode performance and stall innovation. For instance, firms that pursue inclusive cultures and develop matrix- or team-based structures find that highly fragmented decision rights and excessive approval seeking can result in missed market opportunities and inflated cost structures. Similarly, policies and procedures designed to correct mistakes made years ago can institutionalize interactions that needlessly consume employees’ time, thereby sometimes doing more harm than the problems they were meant to solve.

Excessive collaboration demands can also damage employees’ productivity and even their health, as a large body of literature over the past two decades has documented. Suicide is the most shocking outcome, but subtle effects of stress and strain also lead to medical conditions that shorten the lives of millions of workers each year. The globalization of workforces and markets, greater specialization of skills and expertise, and the need for rapid innovation in product and service offerings are all thrusting greater collaboration demands onto knowledge workers. These pressures increase employees’ stress, and they strain organizational structures, processes, and even cultures.

Unfortunately, traditional managerial tools such as process maps, responsibility matrices, formal organizational structures, or internal financial reports do not reveal the causes of collaboration overload. As they implement new structures and adopt new collaboration tools, leaders often shoot bluntly, unaware of the consequences. Instead, they should first be assessing where collaboration is necessary and where it is not. Our research over the past seven years has employed Organizational Network Analysis (ONA) to develop strategies for reducing the negative impacts of collaboration overload (see Appendix: About the Research). Historically, ONA has been applied to enhance collaboration where it is most urgently needed and to improve employees’ effectiveness. Our research, in contrast, uses ONA to assess collaboration overload and reduce unnecessary, productivity-draining interactions. In its focus on the negative instead of the positive effects of interpersonal ties, our approach is a novel contribution to the literature on social capital and social networks. It also addresses a conundrum for leaders: While most push for more collaboration among their employees, few want more phone calls, e-mails, or meetings themselves.

In this article, we use case examples from several of our research sites to show how traditional approaches to improving collaboration—structural changes and the use of new technologies—can cause unintended inefficiencies due to collaboration overload. We also describe two strategies for reducing excessive collaboration—delayering network overload points and streamlining decision and information networks—that can help organizations realize time savings equivalent to 12% to 16% of the total hours put in by their workforce. Leaders who follow these strategies can improve the lives of their employees, enhance productivity, and free up resources that can be applied elsewhere.
The Pitfalls of Improving Collaboration

In their efforts to bring employees’ diverse expertise and knowledge to bear on strategic and operational priorities, leaders often take one of two broad approaches. Some implement structural changes, delayering traditional hierarchies and adopting matrix- or team-based structures. While such changes have some positive effects, they often overload key people and roles, thereby creating inefficiencies in decision making and execution. Other leaders turn to social media and related technologies to help employees connect. Our research shows that these tools often overwhelm highly visible experts, while many others with relevant skills and knowledge remain underutilized. In what follows, we describe how to reap the benefits of structural and technological approaches to collaboration while minimizing their unintended negative consequences.

Over-Relying on Formal Structure

Consider the plight of the leader of a late-stage product development group in a global biotech firm. This organization needed to trim cycle time in new-product development, as every day’s delay in getting a new product to market was estimated to cost close to $1 million in lost revenue. The leader used ONA to assess information flow networks and thereby identify ways to bridge silos and engage relevant experts at appropriate points in the commercialization process. Being able to visualize decision-making networks also helped identify bottlenecks, streamline approval processes, and reduce time spent in routine interactions.

The ONA data helped this leader identify where relational overload was limiting employees’ productivity and ultimately damaging organizational effectiveness. One person, for example, was sought out by more than twice as many individuals from other groups than were the next five experts in her group combined. This person was often inundated with requests from other groups and struggled to prioritize these interactions. However, her boss did not realize how much of her time was consumed by these external requests and so continued to demand more of her.

Many areas of the product development group experienced this kind of structural imbalance in expertise seeking. Despite the availability of sometimes dozens of individuals with expertise in a given area, employees throughout the organization tended to seek out the most- or second-most-overloaded expert. As a result, these experts could not respond to requests in a timely fashion and had difficulty getting their own work done. Over time, many had burned out and were at risk of leaving.

Unfortunately, the leader believed that network overload was mostly a quality-of-life issue. She passed the findings on to an HR representative with instructions to see if certain employees were feeling stressed. The HR rep did nothing with the data for several months and then left the organization for other reasons. By the time a new HR rep was in place, the damage had been done: 26% of the individuals who were most overloaded had quit the company in the six months after having been identified as being at risk. (The turnover rate for the organization as a whole was in the low single digits.)

These departures resulted in a significant loss of important network interactions. Within some technical expertise domains, connectivity dropped by up to
62% as established relationships disappeared and remaining employees struggled to build new ties. Across 18 subunits, five that had been well integrated with units outside the development group became organizational silos, their outward connectivity reduced to one fifth of what it had previously been. Over time, the loss of connectivity added weeks to the development process on several key projects as employees spent time searching for information that had in the past been easily available, building trust with employees in other units, and revisiting decisions after discovering critical information had changed.

At this point, the leader of the product development group came to understand the organizational implications of these network dynamics. She quickly established a plan to retain the remaining highly connected individuals identified in the ONA data, addressing overload by changing roles and processes so that inquiries were routed to experts who were carrying less of a relational load. “As a leader, you get used to seeing challenges arise because your people aren’t collaborating with others inside and outside [their units],” she told us. “The ONA made it clear that we had just as many problems as a product of too much collaboration. This was just as damaging to our goal of reducing cycle time. We spend our days in meetings and on e-mail, but it is hard to see the negative effects of these interactions in comparison to hearing people in other units yell about not being consulted or advised. So we have more meetings or set up RACI accountability matrices that solve that specific problem, but that also saddles a lot of my people with these never-ending collaboration demands.”

Now that the network data had the leader’s full attention, she sought to use it in proactive and predictive ways. In a firm-wide strategic assessment, a major consultancy had recommended delayering the hierarchy so that each manager or supervisor would have eight direct reports—a move intended to increase the speed of decision making and improve efficiency. Because the consultancy was considering only the organization’s formal structure, this recommendation made perfect sense. Who could argue with fewer layers of bureaucracy and a tighter, more evenly balanced hierarchy? Armed with the network data, the leader was able to predict that such changes would instead produce new collaboration demands that would be untenable to some in her organization, including many on her management team.

To model the effect on the management team of transitioning to the proposed organizational structure, we suggested two metrics: the total number of incoming ties each manager supported and the percentage of contacts who indicated that they needed greater access to each manager in order to meet their own performance goals (see Figure 1). Our experience with a number of organizations suggests that overload becomes a serious issue once more than 25% of a person’s network can’t get enough of that individual’s time. Two of the nine managers had far more than eight direct reports but were not overloaded at all: They were well connected, and relatively few colleagues needed more access to them. Reducing their number of direct reports to eight would solve a problem that did not exist.

However, two of the managers were truly overloaded even though they had only nine or ten direct reports: They had 30% to 40% more ties than average, and more than 30% of their colleagues needed more access to them. Reducing the number of direct reports for these managers to eight would not have made much of a difference because the main source of overload lay with the collaboration demands
that came from outside their direct reporting relationships. There were also several
managers lower in the hierarchy (not shown in Figure 1) who had few direct reports
but effectively maintained very large networks (50% larger than average, with the
percentage of their network needing greater access to them in the high single digits).
Their true value to the organization was not in supervising people but in working
across crucial junctures as senior subject matter experts. Seen in this light, it was clear
that saddling these people with more direct reports would sap their ability to add
value to the network.

The formal restructuring recommended by the consultancy had become a
mandate from the CEO; no unit had been able to deviate from it. Yet armed with net-
work data, the leader of the product development group was able to propose—and
gain senior-level support for—a formal structure customized to meet her group’s col-
laboration requirements, with the biggest changes in reporting structure for those
who truly were overloaded.

**Over-Relying on Technology**

Social media and other collaboration technologies let employees link to and
follow colleagues, discussions, and content through features such as social search,
content authoring tools, user profiling, groupware, and social bookmarking.\(^{15}\) Propo-
nents claim two fundamental value propositions for these technologies: First, they
enable new kinds of people-to-people collaborations and people-to-content connec-
tions; second, they increase the efficiency of individuals’ content consumption and
collaboration activities. Both value propositions are compelling to senior manage-
ment, leading to widespread organizational adoption of social media.\(^ {16}\)

However, our research shows that only some individuals improve their pro-
ductivity when using social media, while others experience significant negative
effects. By reducing the effort necessary to tap colleagues’ expertise, enterprise social media decreases the opportunity cost of advice-seeking behaviors. In some cases, more consultation does produce better decisions and more-innovative solutions. However, making it easier for employees to ask others for input also has another outcome: Some people who once were relatively self-reliant in their decisions come to believe that they must always consult others before acting. As a result, they may well reap the benefits of collaboration, but they externalize its costs onto individuals who might already be operating at or near their limits. Our research shows that for a given area of expertise, only 5% to 15% of available experts—high-profile individuals who are thought to be most knowledgeable—are heavily sought out by others. Because of the voting and linking algorithms embedded in many social media, such experts often appear at the top of search results, directing disproportionate attention to them and exacerbating their overload problem.

One mid-level leader in a consumer packaged goods company we studied was reluctant to endorse a major social media rollout in his unit because of personal experience with technology-driven overload. Key executives strongly supported the new platform, so the leader knew it would only be a matter of time before his unit had to adopt it. Rather than be cast as a Luddite or as resistant to change, he used the results of an ONA to identify overloaded experts in his unit and then coached them on how to turn the technology to their advantage.

One example was using expertise-focused discussion groups to engage underutilized experts. To begin with, each overloaded expert started a discussion group. Then, instead of responding directly to inquiries that reached them through traditional channels, each expert redirected inquiries to the group and responded to them in this public venue. Though this approach was initially more time-consuming for the experts, it gradually trained information seekers to post their questions to the group and to search group archives for useful information. Through the ONA results, each expert found out who their underutilized counterparts were and invited them to participate. The overloaded experts then gradually began to delay a bit in responding to questions, leaving space for others to display competence and develop reputations for expertise. Over time, the once-overloaded experts ended up answering only the most-difficult questions and weighing in on the most-important debates.

Four months into the social media rollout, 81% of overloaded experts who had taken this approach reported significant reductions in e-mails and telephone calls, with time savings far outweighing their time spent on the platform. Their discussion groups had shifted many interactions to underutilized talent, generating timely, efficient, and high-value conversations. Such simple but effective efforts, which build off of ONA results, can counteract the tendency of social media to concentrate attention on a small subset of highly visible experts.

**Reducing Network Overload by Rebalancing Collaboration Demands**

When employees are asked to identify the people they need more contact with in order to reach key business goals, they often identify those who are already
heavily consumed by collaboration—not the underutilized employees on the fringes of the network. Indeed, 3% to 5% of the people in an organization commonly account for 20% to 35% of the value-added collaborations. Organizations can benefit from shifting collaboration demands from these individuals onto underutilized employees, who may include as many as 20% of an organization’s high performers and most newcomers who are on the periphery of the network. Leaders often underestimate, by as much as 50%, just how many people in their organizations are overloaded. When they are aware that employees are carrying too great a load, leaders often encourage them to delegate more and thereby build bench strength in their teams. Unfortunately, the natural tendency of these overloaded people is to turn to others with strong reputations, who often also occupy central positions in the network. In other words, the most-overloaded employees delegate to the next most-busy people and so simply shift the burden.

ONA gives leaders the ability to see the overload points in a network—the people who would welcome being relieved of some decision rights, portions of roles, or key tasks—and, just as important, the employees who could best take on some of these responsibilities. One analysis that can be used to help rebalance collaboration demands is shown in Figure 2. On one axis are the number of times each employee in a financial services organization was sought out for information; on the other axis are the number of times survey respondents said they needed more of that person’s time in order to succeed. Here we were interested in the people in the upper right corner—about 5% of the total sample.

**FIGURE 2.** Rebalancing Collaboration

*Example: This person has 70 people who consider him an effective source of information and another 26 who desire greater access to be more effective in their job.*
We interviewed these overloaded employees to understand the nature of the interactions that were consuming so much of their time. Many described being sought out for information or expertise related to a role they had transitioned out of as many as five years earlier. Others spoke of being bogged down with routine decisions like travel approvals that required many sign-offs and simple capital expenditures that consumed more in the approval process than the actual purchase amount. In each case, there were many seemingly small things, sometimes driven by personal relationships, that in aggregate sapped substantial amounts of time. Overloaded employees did not need to be involved in these interactions, but they often couldn’t figure out how to shift them to others, or they underestimated the amount of time they consumed.

Once overloaded employees came to appreciate the cumulative impact of simple informational requests, routine decisions, and role demands, they could identify appropriate “go to” people—well-regarded employees, mostly from the bottom left corner of Figure 2—who could own some of these areas. Designating such employees as formal go-to people helps balance the workload, reducing demands on the overloaded while getting more out of the underutilized. However, once work is shifted in this way, the previously overloaded employees must avoid jumping back in by, for instance, second-guessing decisions or overreacting to missteps. If people do not fully take ownership of these new responsibilities but instead keep asking for permission and guidance, leaders (especially those in risk-averse cultures) will be driven back into an overload position.

Consider Scott, the head of a roughly 2,500-person unit in a leading technology development organization who had for the most part enjoyed a very successful career. His open-door policies and commitment to nonhierarchical structures and leadership had time and again inspired his employees to great accomplishments. After several years working his way up through the organization, he had been put in charge of a new-product launch that ultimately became a blockbuster. Because of its success, Scott had enjoyed rapid promotions. When he was put in charge of his current group, most people thought it was simply another developmental assignment as he continued his ascent.

Yet when we conducted a network analysis in this organization, Scott’s boss—the CEO—pulled us aside and asked us for suggestions to help Scott. After a year and a half in his current role, Scott was becoming a detriment to his own unit and to himself. As we looked at Scott’s position in the network, the problem became clear: In his group, more than 150 people sought him out frequently for information, and another 77 said they needed even more of his time to meet their business goals. Clearly, Scott was working to his limit, but he was still slowing down far too many people and projects in his organization. Even worse was the devastating personal toll: With the new role, he suffered from weight gain, high cholesterol, and an unhappy family because he brought so much work home every night.

Scott was not intentionally making himself overly central in the network by hoarding information or trying to be a power broker. To the contrary, he was humble, thoughtful, and inspiring. However, some of the very qualities that had made him successful over time were causing his downfall now as his network overwhelmed him. Part of the problem was the many routine interactions that had
accumulated around him over the years. These included meetings he attended to protect his group or to be in the know, routine decisions he was approving, and requests for information or help on matters that were no longer part of his job. All of these in isolation seemed to be small demands on Scott’s time, but in aggregate they took their toll. By altering decision processes, reallocating some work to others, and involving junior people in meetings, Scott reduced his collaboration demands by 18%.

However, he didn’t stop there. He also looked at himself and his own behavioral tendencies. Again, some simple adjustments yielded large improvements. Scott sent employees to some of the meetings he had been attending; he asked more questions (and answered fewer) while connecting people around him; he became more selective when deciding which problems to help others solve; he adopted the rule of thumb that if he could not improve his employees’ efforts by more than 25% he would keep his mouth shut; and he began using a blog to communicate his thoughts about strategic and competitive priorities more consistently.

As with most leaders, such changes did not come easily for Scott. Only with the help of a thoughtful coach was he able to identify the kinds of interactions that had needlessly stuck to him over the years and shift those interactions by engaging others. However, all his changes were worth the effort. Scott moved from being the most-overloaded person in the network to number 17 within the first year and slightly lower by the second year.

To develop ideas for how overloaded individuals like Scott can ease their burdens, we interviewed efficient collaborators in a range of companies and documented some best practices (see Table 1).19 We have found that using these practices as a guide and reviewing roughly three months of a person’s calendar never fail to reveal opportunities for efficiency gains.

**Streamlining Information and Decision-Making Networks**

Rebalancing collaboration demands for overloaded individuals can be accomplished by redefining their roles, modifying their behaviors, and developing alternative sources of information. However, identifying behaviors and routine decision processes that are consuming too much of everyone’s time is also crucial. Two steps are effective on this front: identifying and replicating the behaviors of efficient collaborators (those who provide the greatest value to others in the network while consuming the least amount of time); and identifying and removing (or rerouting) routine decisions that involve too many people for too long.

**Improving Collaboration Efficiency Within Roles**

Interactions with some people are simply more efficient than interactions with others. It may take five minutes to get through a conversation with one individual and half an hour with another. Then there are the people to whom we’ll lose an hour of our lives if we don’t escape when we see them coming. Beyond just interaction time, some people are simply more efficient in what
they ask of their colleagues and yet still accomplish their joint goals. Replicating the efficiency of these people throughout a unit or organization can save time and money—and improve morale. We found that helping the least-efficient collaborators in a unit rise to average levels can produce time savings equivalent to 8% to 14% of the total person-hours worked in that unit. Of course, these are soft savings that are derived not from firing people but from freeing up time for other work to get done.

Network analysis enables us to see the variation in efficiency among employees. Figure 3(a) shows a sample of managers and executives in a large multinational sales and marketing organization. A senior leader within the firm sponsored the research to discover means of improving efficiency among managers he felt were drowning in meetings, e-mails, and phone calls. We used ONA to identify the informational exchanges that were valuable to employees and the time employees spent preparing for and interacting with each person. Figure 3(a) shows the average amount of time each person consumed from each employee in his or her network. The managers and executives toward the lower right corner were the most efficient—for any number of collaborators, they consumed the least amount of those

<table>
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<th>TABLE 1. Reducing Collaboration Overload</th>
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<tr>
<td><strong>Structural:</strong></td>
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<tr>
<td>1. Reallocation of routine decisions (such as travel approvals, hiring and promotion decisions, and small capital expenditures) to less-overloaded people or embed them in a policy.</td>
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<td>2. Make information that you are routinely asked for available through other people or on websites.</td>
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<td>3. Shift portions of your role to people on the fringe of the network as a developmental opportunity.</td>
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<td>4. Ask the people around you to focus their inquiries to ensure that issues reaching you are targeted to your current expertise and position.</td>
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<td>5. Acquire buffers (such as administrative assistants or calendaring rules) that encourage collaborators to be focused and efficient when they meet with you.</td>
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<td>6. Hold periodic meetings instead of many fragmented interactions to build vision and coordination.</td>
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<td>7. Be clear about what will be decided and who must be present at meetings you run (thus relieving people of the need to attend “just in case”).</td>
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<td><strong>Behavioral:</strong></td>
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<td>1. Avoid sending signals that you need to be in the loop. Instead, create connections with people who can take on some decisions.</td>
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<td>2. Do not be too responsive or quick to help out with issues that do not require your involvement.</td>
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<td>3. Try not to be responsible for expertise that is less central to your success than it perhaps used to be. Remove yourself from certain meetings and interactions or use them as a way to develop key talent.</td>
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<td>4. Hold people accountable for lack of execution (in as positive a way as possible).</td>
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<td>5. Correct collaboration problems quickly, before they escalate.</td>
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<td>6. Make decisions when you should—even in the face of ambiguity or less than perfect information—so that you are not asking others to devote unnecessary time to studying an issue.</td>
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<td>7. When you make suggestions on employee’s work, focus on changes that will yield significant (&gt;25%) improvements.</td>
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<td>8. Co-create solutions with employees so that they take ownership and need fewer interactions with you over time.</td>
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<td>9. Go face-to-face for high-stakes interactions, thereby reducing the need for follow-up meetings.</td>
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<td>10. Switch from e-mail to direct contact early when you see signs of misunderstanding.</td>
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people’s time. Those towards the top left corner were the least efficient, consuming more time per interaction than others.

We analyzed a range of roles in the organization and found significant variation, even among individuals performing the same job. As shown in Figure 3(b), even when discarding the top 20% and the bottom 20%, the less-efficient individuals consumed two to five times as much of others’ time per interaction than those who were more efficient. The Figure also shows the importance of finding improvement opportunities by comparing individuals who perform the same role.

Through interviews, we elicited the practices of both the least-efficient and the most-efficient collaborators (those of the former were more difficult to identify). For instance, a manager of a large project described his approach to running weekly meetings: “I run very effective meetings. We don’t need to publish an agenda. Everyone knows that we get things done in my meetings, and I regularly get 100% attendance. We can hit any topic that might come up and know for sure that the right people are in the room, ready to make a decision.” This might sound sensible, but his network data confirmed that he consumed far more of others’ time than average for his peers, in part because people feared missing something important in his meetings and so wasted time sitting through discussions that ultimately did not affect them. In contrast, listen to this manager: “I like to establish a culture right up front that says if there is no reason for you to come to a weekly meeting, please don’t.
You have far too much to do to be sitting here just in case we need you. I help them make good choices by locking down my agendas the day before and sticking to them 100%; if something new comes up and you are not there, we can handle it in other ways, depending on how urgent it is." This philosophy of collective efficiency found its way into many of this manager’s interactions, and as a result he consumed less than half the amount of coworkers’ time that the first manager consumed.

Because employees often do not consider the collaboration efficiency of their actions, workshops can be an effective approach for eliciting and transferring role-specific practices for improving collaboration. For example, leaders of a research and development group that we studied saw significant variation in collaboration efficiency among frontline scientific team leaders—even those who had long tenures. All team leaders were invited to a morning workshop, where each more-efficient leader was paired with a less-efficient one on the basis of network data (the leaders did not know which category they were in). Each pair was asked to brainstorm for 45 minutes about how they interacted with individuals in their networks and to identify two or three practices that were effective in accomplishing goals while respecting others’ time. The pairs then reported out to the full room, and a facilitator spent an hour compiling a master list and reducing it to the ten most-effective practices. By the end of the morning, even the very efficient participants had learned some new things, but the less-efficient ones had gained the most. In the words of one such participant: “I have been so focused on the science, I never knew this stuff mattered so much.”

While collaboration efficiency is improved one individual at a time, its impacts are distributed broadly throughout a network. Organizations that understand the need for efficient collaboration and expect it among their employees benefit in a variety of ways: Employees are engaged in a broader range of efficient interactions,
rather than having their time consumed in a smaller set of inefficient ones. Staffing levels are lower, cycle times improve, and employee engagement is stronger.

**Taking Routine Decisions Out of the Network**

Many activities and decisions in an organization are driven by routine. Best practices and business processes become entrenched over time, providing predictable paths to value creation. However, some routinized decisions generate unnecessary work. In all the organizations we studied, some habitual decision-making processes and structures had been established to deal with issues that once were crucial but had become less so. In a risk-averse culture, decision-making processes often mimic what worked in the past, thus introducing rigidity and a push for 100% certainty (the last 5% often consumes far more effort than the first 95%). In addition, managers are sometimes unwilling to let processes drive themselves; perhaps with all the best intentions, they want to keep themselves in the loop. As a result, decisions that could be delegated or embedded in a process instead remain to be made at a manager’s discretion. As such decisions pile up, the extra meetings, reports, and discussions leave less time for the important non-routine decisions that inevitably emerge. In these and many other situations, the cumulative cost of working through such decisions far outweighs the potential loss if a decision goes wrong after being made at lower levels of the organization.

Network analysis is a powerful tool for discovering decisions that impose high collaborative costs. ONA can also help managers find solutions—for instance, shifting a decision to an employee who is less consumed with existing collaborations or embedding a decision in a policy or procedure after seeing who is typically consulted or involved in the decision (and their areas of expertise).

Our research in a life sciences company exemplified this kind of data-driven approach to routine decisions. Here we used the ONA to ascertain the proportion of time spent in routine and nonroutine decision-making interactions. As one senior leader had expected, units that dealt with core scientific subjects were engaged in many nonroutine interactions as well as a sizable component of routine work. Yet several units—whose primary mission was to provide standardized services (such as medical imaging) to other units—were engaged in many non-routine interactions. The leader soon realized that he had to forgo stereotypical assumptions about whose work was routine and whose wasn’t, and let the network analysis results identify opportunities for improvement.

Exploring the data in greater detail, he saw many instances of people with identical job descriptions who were engaged in vastly different amounts of routine work. In follow-up interviews, we found that some employees had figured out ways to reduce the impact of the repetitive aspects of their jobs on themselves and their networks, freeing as much as 12% of their time by systematizing routine obligations. Importantly, we found that these employees were not shirkers; their work products were as good as those of their less-efficient peers.

The fact that individuals could on their own achieve these kinds of time savings led the leader to explore which routine interactions could be improved even more when considered across all employees. An analysis of the decisions that employees identified as highly routine yet very time-consuming pointed to a few
important intervention points. For instance, procurement and vendor contracting consumed a huge amount of time among senior project personnel, who had to wade through a byzantine approval process that required legal, scientific, and administrative input for even the smallest contract. The leader presented these results to senior procurement colleagues, who were able to reclassify projects in a way that permitted many smaller contracts to follow a completely different, streamlined process. By eliminating many needless interactions, this shift freed up an average of 2.5 hours per person per week among project managers and staff—a seemingly small number that when aggregated across many projects and many weeks had a substantial impact on productivity.

A related finding was the significant amount of time mid-level managers spent on hiring decisions, often stumbling through HR policies, practices, and processes that they did not fully understand. Finding the right new hire was clearly something that needed their deep involvement, but the myriad follow-on steps required, especially for international hires, were the real time wasters. Managers and their administrative staff ended up spinning their wheels, interacting needlessly as they worked through the unique issues that inevitably arose around each new hire. After the sheer number of hours invested in such efforts became clear, the leader was able to make the case for extra support from the organization’s central HR unit, which created new positions to take on these routine decisions and actions.

**Conclusion**

In the face of myriad new collaboration technologies and the constant pressure for more interaction, it can be hard for senior leaders to keep employees focused on the tasks and activities that are most crucial to value creation. Asking employees to both increase collaboration and attend to crucial tasks leads to overload, burnout, and decreased productivity. We have found that leaders who actively seek to remove unnecessary and inefficient collaboration from their units help employees become more effective in their jobs. As a result, employees find that they don’t need to choose between conflicting yet equally important goals, reducing stress and overwork. As the culture of an organization shifts, efficient collaborators are celebrated and their practices held up as models for others to emulate. Perhaps most important, senior leaders are seen as the enablers of productivity; clearing the path for employees to succeed generates respect and gratitude and, over time, loyalty and commitment. With a range of how-to advice available to help leaders conduct their own network analyses, improving collaboration efficiency is precisely the sort of goal that should be at the top of their agendas.

**APPENDIX**

**About the Research**

Over the past seven years, we have collected data on collaboration efficiency by employing Organizational Network Analysis (ONA) in 14 large companies in a range of industries, including pharmaceuticals, consumer products,
high technology, electronics, finance, and professional services. In each case, we worked under a senior executive sponsor in a major organizational unit ranging in size from roughly 300 to over 6,000 employees. We used ONA to conduct quantitative analyses of collaborations, and we supplemented this data with qualitative data in the form of interviews with senior leaders and employees, observations of key meetings and events, and written documents such as internal reports, communications, and analyses. Across the companies, we sought to extract common themes from our data that reflected effective (and in some cases less effective) approaches taken by senior leaders in using network data to improve collaboration in their organizations. Our goal was to discover novel implications for practice.

Also known as Social Network Analysis, ONA is a method for analyzing patterns of interpersonal interactions to understand the structure of collaboration within a group or organization. In each case, we collected data using surveys in which respondents were asked questions such as, “Please indicate the degree to which you typically turn to each person below for information to get your work done,” “Please indicate the amount of time you spend in a typical week preparing for and interacting with each person listed below,” “Please indicate the degree to which greater access to each person listed below would improve your ability to meet your business goals,” and “Please estimate the percent of the total time that you spend with each person listed below that is focused on routine decisions during a typical week.” We used the survey results to produce a series of graphical and quantitative analyses that centered on collaboration efficiency, network overload, and employee performance.

For example, we employed the information network to identify people who were managing a disproportionately large number of collaborations. We found that typically 3% to 5% of the people accounted for 20% to 35% of the value-added collaborations. Problematically, many of these highly connected people were the same ones whom others in the network said they needed more time from to meet their business goals. While some of these overloaded people were known by leaders ahead of time, many were not; they represented important opportunities to help reduce network demands on their time and thereby improve their effectiveness and that of the organization.

In addition, we employed the time measure in many ways to see where inefficient interactions were consuming too much time. For example, an individual-level measure of collaboration efficiency (the typical amount of others’ time an individual consumes in each collaboration) could be calculated by dividing the total amount of time other people invest in collaboration with an individual by the number of such interactions. The degree of variation—even among people performing the exact same job—is often surprising. Even when discarding the top 20% and the bottom 20%, the less-efficient people generally consume two to eight times as much of others’ time per interaction than those who are more efficient. Subsequent interviews with the more-efficient people revealed that they had discovered ways of working that allowed them to perform well while requiring less of others. Through improved training, new mentoring relationships, and discussion forums that spread their best practices, the less-efficient collaborators learned over time how to boost their collaboration efficiency.
Notes


4. Ibid.


14. To assess overload, we used the in-degree network measure, which is the total number of individuals in the organization who indicated that a focal person was an important source of information or expertise. We also assessed the extent to which individuals believed that greater access to each individual in their network was important to enhancing their own performance. Scatterplots of these two networks then helped reveal the overloaded employees—typically we focused on employees in the upper right corner as well as potentially less-connected employees who had 25% or more of their network claiming they needed great access to them to hit their business goals. These same analytics helped us to identify underutilized employees.


18. Ibid.

19. To determine what actions can help, we used the ONA metrics to identify the ten most-efficient collaborators in each of our research sites—that is, individuals who were able to maintain a large number of ties with proportionately very few contacts clamoring for more access, and those who were able to accomplish their own goals without driving high levels of extra work toward those around them. Our interview protocol sought to identify the specific, concrete actions they took on a daily or weekly basis that differentiated them from other, less-efficient collaborators. Over time, we triangulated across descriptions provided by managers in different research sites to identify a core set of best practices. We validated these practices shown in Table 1 by interviewing ten collaborators at each site whose network statistics showed that they were of average in collaboration efficiency, and found that most rarely used the practices shown in Table 1, if at all.