Talent no longer has to be local, and the virtual workforce is becoming increasingly valuable. With it, however, comes a need for alternative strategies for employee engagement and productivity.
Making Virtual Collaboration Work

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INTRODUCTION

Letting employees work from home or at drop-in work centers can be beneficial to both employees and companies. But managing communication can be a challenge from both directions. This collection of articles from MIT Sloan Management Review looks at how organizations are navigating the challenges of a dispersed workforce.

From “The Four Ways to Manage Digital Talent and Why Two of Them Don’t Work”: 

- Digital leaders are experiencing new challenges as they compete for digital talent that is in high demand. They are dealing with three key shifts: (1) a shortage of people with the requisite digital and social skills, (2) the need for flexibility that enables them to scale their resources according to project requirements, and (3) the fact that skilled digital workers may choose to work as freelancers.
- Noting that the number of freelance workers is growing quickly, Forbes reports that freelancers now make up 35% of the U.S. workforce and that freelancing is particularly prevalent among millennials.
- There are four distinct approaches to managing talent in this environment: aligning, orchestrating, architecting, and curating. These approaches differ based on the mix of full-time employees and freelancers, and on the abilities of the organization’s leaders to manage relationships with digital talent.
- Aligning and orchestrating approaches are pervasive today but may not be viable for the future.

From “Four Habits of Highly Effective Virtual Teams”: 

- Employees are hungry for flexible scheduling arrangements and work-from-home opportunities and see them as major factors in decisions to take or leave jobs. Millennials, especially, expect options in their working arrangements, seeing flexibility not as a perk but as a standard aspect of any job.
- But prominent companies that once embraced virtual teams have pulled back. Yahoo, Aetna, Bank of America, IBM, and Reddit have all ended or cut back on remote-work options.
- Managers considering remote working arrangements should revisit the 2009 MIT Sloan Management Review article “How to Manage Virtual Teams,” which was the 2010 winner of MIT SMR’s Richard Beckhard Memorial Prize. For instance, the authors write, members of virtual teams “generally need to be aware of the difficulties of dispersed collaboration and find effective ways to overcome those obstacles on their own.”
- Periodically getting people together for in-person meetings and social events initiates and maintains “key social processes that will encourage informal communication, team identification, and cohesion,” according to the 2009 article.

From “Managing the Human Cloud”: 

- The “human cloud” — a new model for sourcing talent on demand — is reshaping established business processes, redrawing organizational boundaries, and profoundly changing global labor markets.
Companies have increasing opportunities to tap into this virtual, on-demand workforce. But the organizational challenges of this latest wave of outsourcing require new management models and skills.

For “buyers” of talent, project failure (noncompletion) and intellectual property leakage are the two main risks that go along with any initiative in which freelance workers are recruited via the human cloud.

The human cloud should dramatically benefit small buyers. They usually do not have the resources or expertise to outsource globally, but human cloud platforms extend their reach and should put them on more equal footing vis-à-vis larger competitors.

**From “Why Showing Your Face Matters”:**

- Employees who work remotely may end up getting lower performance evaluations, smaller raises, and fewer promotions than their colleagues in the office — even if they work just as hard and just as long.
- Recognizing that that is the case, employees who work outside of the office employ a variety of tactics to make sure that their contributions are noticed and that their colleagues have favorable impressions of them.
- “Passive face time” — simply being observed at work — has great power. Especially in white-collar settings, the presence or absence of passive face time may influence evaluations used to determine the fitness of employees for specific tasks, such as team leadership. Remote workers make up for not having passive face time by offering regular phone or email status reports, making an effort to be extra visible when they are in the office, and ensuring that they are immediately available when they are at home.
- To avoid the possibility of remote employees being assessed unfairly, managers should use objective output measures and take working arrangements into consideration when using peer feedback in performance evaluations.

**From “Five Ways to Improve Communication in Virtual Teams”:**

- Five best practices help ensure that virtual communication works: matching the technology to the task, making intentions clear, staying in sync, being responsive and supportive, and being open and inclusive.
- There is a linear relationship between how well virtual teams communicate and how successful they are: For every 10% margin by which a team outscores other teams on the effectiveness of its approach to virtual communication, that team also outscores the other teams by 13% on ratings of overall performance.
- Although the authors’ research focused on dispersed teams, the five virtual communication best practices can also help teams of people who work in the same office, because colocated teams now often rely heavily on virtual collaboration tools.
- The paradox in dispersed teamwork is that, compared with more traditional teams, trust is more critical to effective functioning for virtual teams but it is also more difficult to build when people aren’t working side by side. Teammates in the same workspace build trust as they get to know and like one another, but in dispersed teams, people must signal their trustworthiness by how they work with others on tasks.
The Four Ways to Manage Digital Talent and Why Two of Them Don’t Work

KRISTINE DERY AND INA SEBASTIAN

With digital skills in short supply, companies must rethink the ways they engage with key talent

Digital has not only forced us to reimagine where and when work is done, but also who is going to do it. Digital leaders are experiencing new challenges as they compete for digital talent that is in high demand. They are dealing with three key shifts: (1) a shortage of talent with the requisite digital and social skills, (2) the need for flexibility to scale according to project requirements, and (3) skilled digital workers often choosing to work as freelancers. Digital marketplaces for freelance IT talent, such as Topcoder, Upwork, Kaggle, are rapidly growing as more people are choosing alternatives to full-time employment. Forbes estimates that 35% of people are choosing freelance work and this is rapidly growing, particularly among millennials. Companies that design workplaces for flexible approaches to both work and workers are more likely to succeed in the world of digital.

We have been studying what it takes to design and manage workplaces that enable our people to be the best they can possibly be in the digital era (see our recent piece in the *MIS Quarterly Executive*). This study found that two design levers really matter in the implementation and management of digital workplaces: (1) enabling employee connectivity and (2) facilitating a responsive, evidence-based leadership. High-performing companies focus on the digital capabilities to connect people with each other, with ideas, and with the broader world. At the same time, these companies are deploying very different leadership capabilities — actively building test-and-learn environments.

Actively deploying digital workplaces is challenging for more traditional companies built on command-and-control principles. It is even more challenging when the key digital talent demands to work in new ways. We
wanted to know more about how this shift in talent needs and demands was affecting the way companies design their workplaces to attract and retain the best people. We conducted interviews with 40 senior executives from IT, HR, and talent management in 28 companies across a range of industries at the end of 2016. While all interviewees faced significant challenges, they were approaching digital talent management in very different ways.

We have been able to identify four distinct approaches to managing talent in this challenging environment (see Figure 1): Aligning, Orchestrating, Architecting, and Curating. These approaches differ based on both the mix of full-time employees (FTEs) and freelancers, and the capabilities in the organization to manage the relationship with digital talent. More relational talent management capabilities focus on flexible, individualized approaches to building mutual value, while more transactional approaches rely on business rules and standardized processes.

**Four Talent Management Models**

<table>
<thead>
<tr>
<th>Approach</th>
<th>Model Description</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aligning</td>
<td>Companies in this quadrant typically defined jobs and talent according to measurements of fit with the skills required for a specific role. Compliance and risk minimization dominated both the IT systems and management capabilities supporting talent management in these companies. The dominant approach to talent favored investments in people employed full time and likely to have a long-term career commitment to the organization.</td>
<td></td>
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<tr>
<td>Orchestrating</td>
<td>Some companies in the Aligning quadrant had started to feel the effects of talent shortages, and they were moving, often not by choice, into more hybrid approaches to attract the talent they needed to meet increasingly urgent and less predictable delivery schedules for digital offerings. HR approaches and workplaces designed for the full-time workforce were being challenged. To avoid using slow recruitment and selection processes (designed for Aligning approaches), digital leaders were finding their own solutions with practices such as shadow HR and IT-dedicated HR teams.</td>
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<tr>
<td>Architecting</td>
<td>These are companies focused on creating interesting work environments to meet the needs of digital talent to have a variety of work experiences, build broad networks, and learn new skills in personalized ways. Architecting companies had developed talent management capabilities around creating flexible internal talent pools to enable people to move around projects and business units, self-directed skill development programs, and personalized, multifaceted career paths. Digital capabilities (such as talent platforms, social networks, and good systems for search) and responsive leadership capabilities (such as talent analytics, empowering self-directed learning, and flexible approaches to staffing) were critical in this workplace design to continuously...</td>
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</table>
build mutual value. Companies with Architecting models were either digitally born or advanced in their digital transformation, making them naturally very attractive places for digital talent.

**Curating**: Very few companies had transitioned to a Curating model, although many aspired to develop it at least for top talent who they were struggling to retain. In our study, companies with Curating models tended to operate in business environments where the skills of their core talent were in high demand, and many were freelancers already. It was critical for these companies to maintain working relationships with these highly valued people, so they were designing new ways to engage people — via embedded startup labs where employees could work on their own projects while maintaining their employment with the primary employer, sabbatical terms, or co-working spaces, for example. Distinct from Orchestrators, these companies had developed outstanding digital capabilities and highly connected workplaces (for example, systems, social networks, physical space) to enable people across multiple working arrangements to add value to teams as seamlessly as possible.

Sixty-four percent of the companies we studied were in the lower quadrants of our framework, and often straining to manage a hybrid workforce with IT systems and HR capabilities designed around a more traditional full-time employment approach. In the upper quadrants of our model, we found companies that were either digitally born or well along their digital transformation journey. These companies were experimenting with new talent management approaches, and introducing digital and leadership capabilities to engage in a wide range of employment models.

We question whether the two approaches to talent management in the lower quadrants, which are still pervasive today, are viable for the future. Adapting to the expectations of the digital marketplace is critical to attracting and building a relationship with the value-adding talent.

Digital capabilities that enable new practices, connect people, ideas, and projects more readily, and build collaboration across a wide range of employees are critical. But just as important are the leadership practices that are responsive to the changing demands of work, enabling new and differing working relationships with key people, and delivering the agility needed for work demands that are less predictable. Test-and-learn environments are not just about new ways to approach how work is done, but also who is doing the work.

**About the Authors**

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Four Habits of Highly Effective Virtual Teams

LESLIE BROKAW

Many employees expect work-from-home to be an option. A handful of practices can help an organization succeed at its remote policy.

“‘This is a group of professionals who see flexible work as a standard way of working, rather than a perk,’” Sara Sutton Fell, CEO and founder of Flexjobs Corp. of Boulder, Colorado, told U.S. News & World Report. Virtual employees in the United States report being more connected to their work: Those who were able to spend 60% to 80% of their time away from the office had the highest rates of engagement, according to a New York Times article about the Gallup survey.

But prominent companies that once embraced virtual teams have pulled back. Marissa Mayer, who banned telecommuting at Yahoo shortly after she took over as CEO in 2013, was one of the most visible managers to move away from the practice. She argued that “communication and collaboration” require people to be “working side-by-side” and available for impromptu meetings. The Wall Street Journal reported last month that Aetna, Bank of America, IBM, and Reddit have all ended or cut back on remote-work options. Ken Matos, vice president of research at Life Meets Work, a workplace consultancy based in Park Ridge, Illinois, told the Journal that companies often retreat from offering the work-from-home option during periods of turmoil and reinvention.

Maybe those companies would have had better luck with virtual teams if they’d done things differently. Managers
considering the option or looking to get the most out of their current remote policy should revisit the 2009 MIT Sloan Management Review article “How to Manage Virtual Teams.” Authors Frank Siebdrat (Boston Consulting Group in Munich, Germany), Martin Hoegl, and Holger Ernst (both from the WHU-Otto Beisheim School of Management in Vallendar, Germany) detail specific ways that virtual collaboration should be directed.

Among their recommendations for the do's and don'ts of managing dispersion:

**Emphasize teamwork skills.** “Clearly, one of the key reasons for organizing a dispersed team is to draw on the superior knowledge that resides in remote locations,” write the authors. But many companies forget to consider the social skills that are necessary for a good team experience — skills that are especially necessary when communication and collaboration are done electronically.

**Promote self-leadership across the team.** “Geographic dispersion and cultural diversity make it difficult for any individual leader to ensure that the team is functioning effectively,” write the authors. One team leader admitted to them, “We are often not able to overcome the cultural problems.” So, for virtual collaboration to work, team members have to be self-reliant. “Members generally need to be aware of the difficulties of dispersed collaboration and find effective ways to overcome those obstacles on their own,” write the authors. Virtual workers need “to be more self-sufficient in how they manage their own work because the team leader is less in a position to help.”

**Provide for face-to-face meetings.** Periodically getting people together for in-person meetings and social events is important. These face-to-face gatherings “can be particularly effective for initiating and maintaining key social processes that will encourage informal communication, team identification, and cohesion,” write the authors. They note that the time and expense involved will pay off if it means the team will be able to glean the expertise of people that it would otherwise not have had on board.

**Foster a “global culture.”** For organizations whose workforce crosses borders, “a global mindset, in which people see themselves as part of an international network, helps provide an environment that is conducive to dispersed teams,” the authors write. Human resource strategies such as temporary staff assignments at foreign locations and inter-cultural training can help foster that mindset and can “advance the development of diversity-friendly attitudes and the ability to work in different contexts, which in turn help employees cope with the challenges of distance when working on virtual teams.”

For more on how to get virtual teamwork right, we invite you to revisit this article from our archives. It was the 2010 winner of MIT Sloan Management Review’s Richard Beckhard Memorial Prize, which highlights an outstanding article on planned change and organizational development.

**About the Author**

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Managing the Human Cloud

Companies have increasing opportunities to tap into a virtual, on-demand workforce. But the organizational challenges of this latest wave of outsourcing require new management models and skills.

BY EVGENY KAGANER, ERRAN CARMEL, RUDY HIRSCHHEIM AND TIMOTHY OLSEN

CHASE RIEF RUNS A small media company in Newport Beach, California — or, rather, from Newport Beach: Rief Media’s 14-person workforce is scattered around the world, all independent contractors he hired through an online service called oDesk. At the other end of the size spectrum, life insurance giant Aegon has an on-demand workforce of 300 licensed virtual agents managed through another online intermediary, LiveOps. They are not Aegon employees but are scheduled for inbound and outbound calling through LiveOps’ routing software.

First came outsourcing of IT and business processes. Next came offshore outsourcing. Now comes the human cloud. A third-generation sourcing ecosystem already being used by companies as diverse as Rief Media and Aegon, the human cloud is centered on an online middleman that engages a pool of virtual workers that can be tapped on demand to provide a wide range of services to any interested buyer. Although jobs involving content generation, sales and marketing, and design and optimization currently top the list of tasks that can be performed by cloud workers, a recent industry report identifies at least 15 major labor categories that could be sent to the

Online retailer Zappos, which is led by CEO Tony Hsieh, has used aggregator MTurk to perform some “human intelligence” tasks.
human cloud.1 (See “Categories of Work Common in the Human Cloud.”)

The human cloud is growing rapidly. Year-over-year growth in the global revenue of human cloud platforms was 53% for 2010 and 74% for 2011. The number of platforms and middlemen has also skyrocketed. Using a narrow definition, we counted more than 100 active platforms in 2012, up from perhaps 40 in 2011.

Some analysts see the human cloud as potentially more disruptive than the previous two sourcing waves. They believe it will reshape established business processes, redraw organizational boundaries and — most importantly — profoundly change global labor markets. After studying the evolution of human cloud platforms over the last few years, we share these analysts’ excitement but also think that the road ahead will be bumpier than some advocates would have us believe. (See “About the Research.”) As with the past waves of outsourcing, harnessing the power of the human cloud will require the evolution and adoption of a new set of best practices and structures by the key sourcing stakeholders — the buyers and the suppliers.

The Origins of the Human Cloud
The human cloud is not a new idea. At least two interrelated phenomena have followed this line of thinking in the past: crowdsourcing and microsourcing.2

Crowdsourcing allows organizations to transfer a task previously performed in-house to a large, usually undefined, group of people.3 Wikipedia, iStockphoto and other high-profile examples demonstrated the power of crowdsourcing in enabling new business models. Crowdsourcing has also proved valuable for traditional organizations. The U.S. space agency NASA, for example, developed a successful initiative — NASA Clickworkers — that enlisted volunteers from all over the world to help identify and label landforms on Mars. In general, crowdsourcing involves large-scale projects completed by a collective of people with no direct or guaranteed monetary incentive to participate.

Microsourcing allows buyers to source paid projects, or fractional tasks, over the Internet from individuals or small providers. The initial idea centered on an online marketplace for freelancers, similar to eBay, but in which buyers and suppliers exchange services instead of goods. Microsourcing relies on a one-to-one relationship between a single buyer and supplier and involves jobs with limited scope and scale. Yet microsourcing is similar to crowdsourcing in that the initial search for a supplier starts with an open call aimed at a large and mostly undefined collective of potential workers.

However, despite enthusiasm for the concept of a virtual workforce, two ob-
Obstacles have prevented businesses from large-scale adoption of crowdsourcing and microsourcing since their first introduction more than 12 years ago: perceived risk, and limited capacity to handle projects of larger scale and scope.

Most managers feel anxious about delegating work to a supplier with whom they have had only virtual contact. Engaging an online crowd requires “a leap of faith,” as one executive buyer told us. In her organization, she has had to work hard to convince colleagues to start working with suppliers they can neither shake hands with nor train. “I get lots of pushback when I propose crowdsourcing,” she says. Not surprisingly, many organizations only crowsource projects that are low-budget and have no hard deadline.

The more serious problem has been the limited capacity of crowdsourcing and microsourcing to handle complex and large-scale work. Microsourcing, for instance, relies on dyadic relationships consisting of one buyer, one supplier and a well-defined final deliverable. Microsourcing platforms provide easy and efficient mechanisms to connect the two parties but offer limited support for collaboration and coordination. This makes them great for facilitating limited short-term projects that can be completed by a single supplier but not for the more common need for multiple interconnected tasks that demand the coordination of multiple skill sets, or for engagement-based services such as support, help desk and infrastructure maintenance.

The Facilitator Model: Supplier Transparency

The Facilitator model is a direct successor to microsourcing. To reduce perceived risks to buyers, these platforms have added features that reduce supplier anonymity. Buyers may still not be able to look the supplier in the eye, but they do have access to a wealth of information about the candidate. Facilitator platforms, like Elance and oDesk, have built frameworks for suppliers to share their professional and personal backgrounds, show off their portfolios and earnings history and demonstrate skills through standardized tests. Buyers now can also interview suppliers before deciding whether to hire them.

The platforms have also made workflows more transparent to the buyer. Elance, for example, offers project management tools that enable buyers to create project milestones, receive status reports from suppliers and link payments to milestone completion. Similarly, oDesk has developed a sophisticated system of remote work management that monitors suppliers’ online work activity and tracks time spent on each task. Virtual dashboards enable buyers to manage teams of suppliers to take on more complex jobs and projects. Such features give companies such as tiny Rief Media the confidence and ability to manage a virtual workforce.

The Arbitrator Model: Supplier Redundancy

Companies often have to source work that is highly unstructured and difficult to evaluate and/or that requires special expertise, such as design or research and development. The project’s outcome is often uncertain, and quality is best evaluated against other alternatives. Tapping into the global talent pool and engaging multiple skilled providers to work on the same project would be highly attractive but, before the human cloud, was beyond reach of all but the largest companies.

A human cloud model we call the Arbitrator model aims to make this option more accessible. It provides buyers with on-demand access to a specialized community of skilled suppliers who can be engaged on a project via a competition or contest. The buyer can choose from multiple competing inputs/deliverables and pay only for the one it finds.
most valuable. This outcome-driven selection also significantly reduces perceived risks for the buyer.

One leading Arbitrator, crowdSPRING, connects buyers with a global community of creative designers. Having started out with logo design, crowdSPRING today runs a wide range of projects, including copywriting and website and industrial design. South Korean-based electronics giant LG Electronics, for example, turned to crowdSPRING to carry out a global online competition to design a mobile phone of the future. In its 2010 competition, more than 400 designs were submitted for consideration by the internal LG panel of judges. Another example of the Arbitrator model is Massachusetts-based InnoCentive, which uses crowdsourcing to solve complex problems. InnoCentive’s online community includes scientists and researchers ready to take on unsolved R&D problems for companies throughout the world.

The Aggregator Model: Task Aggregation

Some companies have work that does not require coordination among the workers who perform a very large number of simple, repetitive tasks, such as cleaning up a large customer contacts database. An Aggregator provides buyers with a single interface to send work to a large number of small suppliers. It provides an infrastructure to run projects similar to that of NASA Clickworkers at minimal cost and ramp-up time.

Consider, for example, Amazon Mechanical Turk, or MTurk, which in 2011 boasted over 500,000 suppliers. Buyers post projects consisting of a large number of simple repetitive tasks that workers are willing to perform for a few cents. These tasks, which MTurk calls “human intelligence tasks,” do not require any special expertise or knowledge on the part of suppliers, but they do involve human judgment and are difficult to automate. Typical MTurk projects include translation, audio and video transcription, categorization and tagging, as well as data entry and product or contact search. Zappos, an online retailer, has used MTurk to correct spelling and grammar on customer reviews since 2009. Another aggregator, Finland-based Microtask, segments projects and then breaks them down into game-like tasks that offer players or workers monetary and nonmonetary incentives for completion and quality.

Recently, Aggregators have begun to provide governance services, such as microtask definition and quality control. Germany-based Clickworker, for instance, guarantees quality to the buyer by having more experienced workers review tasks completed by their less experienced counterparts. This approach appeals to larger buyers. Honda, for

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### Four Types of Human Cloud Platforms

To meet the needs of potential buyers, the major human cloud platforms have developed four major types of business models: the Facilitator, the Arbitrator, the Aggregator and the Governor.

<table>
<thead>
<tr>
<th>Platform Model</th>
<th>Description</th>
<th>Examples</th>
<th>Typical Use Cases</th>
<th>Key Benefit</th>
<th>Average Number of Suppliers on Three Largest Platforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitator</td>
<td>Connects suppliers and buyers directly through a bidding process</td>
<td>Freelancer, Elance, oDesk, Coffee &amp; Power</td>
<td>Any service</td>
<td>Access to a large pool of suppliers and tools to facilitate the engagement</td>
<td>3,700,000</td>
</tr>
<tr>
<td>Arbitrator</td>
<td>Engages multiple suppliers through competitions</td>
<td>crowdSPRING, 99designs, MediaPiston, InnoCentive, Witmart</td>
<td>Logo design, graphic design, idea generation</td>
<td>Ability to choose from among multiple completed projects</td>
<td>80,000</td>
</tr>
<tr>
<td>Aggregator</td>
<td>Aggregates hundreds or thousands of microtasks performed by multiple suppliers</td>
<td>Mechanical Turk, MobileWorks, CrowdFlower, CloudFactory</td>
<td>Transcription, content generation, categorization, Internet search</td>
<td>Ability to have large quantities of standardized work completed quickly</td>
<td>400,000</td>
</tr>
<tr>
<td>Governor</td>
<td>Provides project governance and certifies supplier quality</td>
<td>TopCoder, Trada, uTest, 10EQS</td>
<td>Software development, sales and marketing, software testing</td>
<td>Assurance of qualified coordination and management of complex projects</td>
<td>50,000</td>
</tr>
</tbody>
</table>
example, employed Clickworker to complete a project involving tagging objects in images of traffic situations. The output was used by the automaker to develop an onboard computer functionality to help vehicles avoid road obstacles.

The Governor Model: Project Governance Perhaps the mightiest challenge of the human cloud lies in taking on more complex projects. Indeed, the various human cloud platforms recognize that they need scale. According to a 2012 industry report, their No. 1 strategic focus is to “win more large enterprise clients.” To tackle this, platforms in the Governor model employ a combination of human project managers working on-staff and a sophisticated software-enabled framework for monitoring and coordinating individual tasks. Governors provide a thicker layer of project governance, including collecting project requirements from the client, breaking them up into microtasks, coordinating completion and sequencing of individual tasks, conducting supplier certification and ensuring quality of the final deliverable.

Computer programming service company TopCoder and its community-based model of software development provide perhaps the most advanced example of a Governor platform. The model relies on breaking down traditional steps of a software development project, such as conceptualization, requirements specification, architecture design, component production, assembly, certification and deployment, into a series of online competitions, which are then structured as a “game plan.” Multiple suppliers take part in each of the competitions, and the winning output of each preceding round (as determined by more experienced members of the community) becomes an input to the subsequent one. Atomization allows for deeper coder specialization, leading to better quality. A TopCoder employee — the platform manager — often coordinates completion of the game plan and serves as a liaison between the community and the buyer. Using this model, TopCoder has built and deployed enterprise-grade software for multinationals such as financial giant UBS, home loan company Lending Tree, and sports broadcaster ESPN.

To reduce perceived risks to the buyer, the Aggregator and Governor models shift the focus from individual suppliers (the crowd) to the platform (the company). (See “How the Four Types of Human Cloud Platforms Vary.”) The platform becomes the primary point of contact for the buyer and assumes responsibility for project-related risks. This arrangement requires a much smaller leap of faith on the part of the buyer, since it resembles a traditional outsourcing relationship.

Managing Human Cloud Initiatives Of course, the buyer also needs to make adjustments to make the human cloud useful. (See “Managing a Human Cloud Initiative.”) Because human cloud projects are really just a special flavor of outsourcing, buyers may find it helpful to think about launching and managing a human cloud initiative in the same way that they manage the main phases of any outsourcing engagement.

Architectural phase Architectural design is the first phase of sourcing, the point at which a buyer defines its choices on key dimensions of the future engagement. In the human cloud context, three such dimensions need to be taken into account: the number of suppliers, the degree of interdependence among suppliers and supplier expertise.

Three of the platform models are based on multiple suppliers (these are the embodiment of the crowd), while the Facilitator model depends on just one supplier for project scope. The latter is the tra-
ditional business model: one buyer, one supplier. A small business that develops its storefront website by contracting through the virtual employment agency vWorker is an example of such a scenario. Given that the buyer can specify the storefront’s functional and technological requirements, its implementation is usually fairly straightforward.

Where the human cloud introduces real innovation is in providing multiple redundant suppliers at once, sometimes via a competition or contest-based mechanism. This approach, embodied in the Arbitrator model, is suited for jobs where the quality of the final deliverable is difficult to assure. Redundancy in this context increases the probability that the buyer will obtain a desired outcome. For example, multiple InnoCentive Solvers (working sometimes in teams) who take on a tricky research problem are more likely to come up with an acceptable solution than a single research team.

The Governor model is the most powerful in its handling of multiple suppliers. This model tends to involve projects that comprise of diverse tasks with complex interdependencies among them and that require significant coordination of suppliers. TopCoder’s approach of developing and deploying enterprise software, such as an underwriting solution for a major U.S. insurer, is a good example. Because of the greater complexity and scope of the project, suppliers on Governor platforms also tend to have a higher level of expertise and possess a wider range of skill sets. LiveOps, for example, boasts a pool of trained and certified at-home call agents capable of handling customer acquisition, customer service, fundraising and disaster recovery tasks for corporate buyers across a variety of industries.

The four types of human cloud platforms vary in their norms for supplier expertise and accommodate a wide range of jobs, from simple tasks, such as data entry or naming contests, to those requiring significant professional training and experience, such as Web development and indus-

### MANAGING A HUMAN CLOUD INITIATIVE

The four types of human cloud platforms vary in their approach and in their norms for supplier expertise.

<table>
<thead>
<tr>
<th>FACILITATOR</th>
<th>ARBITRATOR</th>
<th>AGGREGATOR</th>
<th>GOVERNOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of suppliers</td>
<td>Single supplier completes the job</td>
<td>Multiple redundant suppliers complete the job</td>
<td>Multiple suppliers complete job tasks</td>
</tr>
<tr>
<td>Interdependence among suppliers</td>
<td>None</td>
<td>Low — parallel task processing</td>
<td>Varies — simple or complex task dependencies</td>
</tr>
<tr>
<td>Supplier expertise</td>
<td>Low/medium/high</td>
<td>Medium/high</td>
<td>Low</td>
</tr>
<tr>
<td>Supplier selection</td>
<td>Buyer selects supplier based on credentials</td>
<td>Suppliers self-select based on job award and conditions</td>
<td>Buyer selects platform; platform handles supplier selection</td>
</tr>
<tr>
<td>Project terms and pricing model</td>
<td>Negotiated between buyer and supplier</td>
<td>Established by buyer</td>
<td>Negotiated between buyer and platform</td>
</tr>
<tr>
<td></td>
<td>Pricing: fee for job</td>
<td>Pricing: fee (award) for job</td>
<td>Pricing: fee for job; supplier pay set by platform</td>
</tr>
<tr>
<td>Coordination of supplier(s)</td>
<td>Traditional: Buyer-supplier dyadic coordination only</td>
<td>Traditional: Buyer-supplier(s) coordination only</td>
<td>Platform provides complex coordination</td>
</tr>
<tr>
<td>Quality control</td>
<td>Buyer evaluates quality of single deliverable</td>
<td>Buyer chooses best from multiple deliverables</td>
<td>Buyer assesses quality of tasks completed by multiple suppliers</td>
</tr>
<tr>
<td>Risk management: noncompletion</td>
<td>Supplier failure delays the entire job, falls on buyer</td>
<td>Supplier failure does not affect the job</td>
<td>Supplier failure delays only some job tasks</td>
</tr>
<tr>
<td>Intellectual property</td>
<td>Controlled via legal agreement between buyer and supplier and via trust</td>
<td>Controlled via legal agreements between suppliers and platform; platform facilitates IP transfer</td>
<td>Controlled via &quot;atomization&quot; of work and via legal agreements between suppliers and platform</td>
</tr>
</tbody>
</table>

SPECIAL COLLECTION • "MAKING VIRTUAL COLLABORATION WORK" • MIT SLOAN MANAGEMENT REVIEW 11
trial design. The Aggregator model, typified by MTurk and MobileWorks, often requires no special supplier expertise whatsoever.

**Engagement phase**  Engagement is the sourcing phase in which the buyer chooses one or more suppliers to carry out the work and establishes the contract terms. In recruiting suppliers, the buyer needs to consider who is responsible for the selection process and what criteria the selection is based on.

The Facilitator model offers the most traditional sourcing approach, with suppliers submitting bids and buyers doing due diligence. On Elance, for example, buyers choose suppliers by evaluating project proposals; reviewing online resumes, portfolios and standardized skill test scores; studying feedback from prior engagements; and in some cases conducting online interviews.

The Governor model is similar, but here the buyer chooses the platform rather than the supplier. The platform then handles all aspects of supplier selection. In both Facilitator and Governor scenarios, careful attention to verifying the counterparty capabilities is crucial, as, once chosen, the supplier or the platform assumes responsibility for the job.

Two human cloud models that deviate drastically from traditional outsourcing in the Engagement phase are the Arbitrator and Aggregator models. These models typically allow suppliers to self-select work on a posted project. Suppliers are tempted to join if the award promised matches the perceived effort involved. For example, the “grand challenges” on InnoCentive — highly complex scientific problems requiring top-level expertise — can carry awards in excess of $1 million, whereas a simple “human intelligence task” on Amazon MTurk, such as data entry, may pay 10 cents.

Additionally, nonfinancial factors, such as reputation or learning, may come into play. The creative designers at crowdSPRING seek projects where there are opportunities for learning; hence, they often prefer to join “open” projects, where the buyer’s feedback on submitted designs is visible to everybody, rather than “pro” projects, where all communication between the buyer and the creative is kept confidential.

**Operational phase**  With suppliers lined up and terms negotiated, the buyer shifts its focus to executing the sourcing initiative. Traditional dyadic buyer-supplier coordination in the Facilitator and Arbitrator models requires the buyer to be prepared to maintain close, ongoing interactions with the supplier or suppliers in order to provide feedback and oversight. As an executive with vWorker pointed out: “Sometimes buyers think they can just say, ‘Here is what I want,’ and then come back later and see it created. That never works. Unless the parties are to commit the time for interaction and communication, the result is not going to be good and buyers are not going to be happy.”

The Aggregator model, with its focus on parallel microtask processing, requires less ongoing coordination. Consider, for example, collecting categorized product instances from workers on Amazon MTurk and storing them in a product database. Most of the coordination in this case is implicit — through highly structured tasks — and the buyer-supplier relationship is arm’s-length with minimal ongoing interaction. Some Aggregator platforms and third-party companies enable coordination via workflow. Smartling, a New York-based company that manages translation services for websites and mobile apps through its own platform, has built workflow tasks that streamline the translation process and reduce the overall task duration.

The complex interdependencies among tasks and suppliers common in the Governor model require significant coordination, which is the
responsibility of the platform, not the buyer. TopCoder and LiveOps deploy a sophisticated proprietary supplier governance layer to enable coordination. More complex jobs may also involve human “platform managers,” who collect project requirements from the buyer at a high level and assume full responsibility for the decisions at lower levels, restricting the buyer’s input to an as-needed basis.

Ensuring Quality Control In all models except for Governor, the buyer is responsible for providing quality control. On a Facilitator platform, the buyer evaluates a single project deliverable submitted by the contracted supplier. To do so, the buyer must have the required expertise in-house. For example, when a supplier hired on Elance for a translation job submits a translated document, the buyer must have the necessary skills to review and assess the quality of the translation.

The Aggregator model poses a different challenge: scale. Here, the buyer must assess the quality of a large number of tasks completed by a pool of suppliers. While the tasks are often trivial, such as product categorization or data entry, checking quality on thousands of them is not. Some platforms offer tools to ease quality control for the buyer. Amazon MTurk, for example, employs a reputation system that evaluates suppliers over time. Others, like microtask crowdsourcing company CrowdFlower, allow buyers to mix “test” tasks into the workload and reject input from suppliers that fail the tests.

Redundant project deliverables submitted by competing suppliers — an approach common in the Arbitrator model — reduces risks and simplifies quality control for the buyer. Choosing from multiple options makes it easier for the buyer to pick the deliverable that fits its requirements best. This may be especially helpful in situations where quality is more subjective. Consider, for example, the common task of developing a logo. Comparing multiple designs submitted by individual designers helps the buyer realize which logo best represents its vision for the venture.

The Governor model assigns responsibility for quality control to the platform using approaches that range from multilevel peer review to supplier testing. Supplier certification is another common approach. When the newspaper USA Today needed to test new mobile apps on many hardware/software permutations, it had software testing marketplace uTest manage the project. uTest certifies its testers by vetting the 1,000 new testers per month against existing testers by having them “play in a sandbox” — that is, perform similar tasks but on a copy of the code being tested.

Managing Risks
For the buyer, the two main risks of a human cloud initiative are project failure (noncompletion) and intellectual property (IP) leakage.

Two models — Arbitrator and Aggregator — have a lower risk of project failure than the others. This is due to the built-in redundancy: multiple redundant suppliers for the job scope means that one failing supplier has little to no impact.

The other models have traditional project failure risks. In the Facilitator model, supplier non-performance leads directly to delay. While the buyer can respond via financial penalties and negative feedback, these are of little consolation in the case of time-critical projects. A better approach is to rely on thorough due diligence in the Engagement phase of the initiative and close oversight during its Operational phase. Project failure under the Governor model is similar, but the responsible counterparty here is the platform, not the end supplier, thus increasing the leverage of threatened penalties and legal means against an underperforming supplier.

Larger buyers like to buy from large suppliers. The two previous sourcing waves, outsourcing and offshoring, really took off only after the supplier marketplace had matured enough to match scale.
IP risks also vary considerably across the different models. Fundamentally, the buyer is relying on a virtual, distant and often foreign supplier. Of the four platform models, the Aggregator model — with jobs typically comprised of mundane, repetitive microtasks — presents the least risks to IP. In fact, vendors argue that if the tasks are sufficiently atomized, the suppliers cannot even infer what the larger project is about, significantly mitigating IP risk.

In contrast, the Arbitrator model presents the greatest IP challenge. On the one hand, typical Arbitrator jobs, such as industrial design or scientific challenges, require highly skilled suppliers; on the other, the competition model assumes that multiple (often numerous) suppliers have access to all project-related information. The combination of these two factors heightens IP risks for the buyer.

Arbitrators control IP-related risks in a number of ways. By default, all new suppliers joining the platform must sign a legal agreement adhering to IP regulations. The platforms, such as InnoCentive and crowdSPRING, also facilitate IP transfer from the winning supplier to the buyer, often without disclosing the buyer’s identity. On the prevention side, supplier education becomes important. “Our biggest challenge is to educate the community, especially all of the new creatives who join every day,” said one crowdSPRING executive.

Guarding IP under the Facilitator model is also difficult. While it is common to have suppliers sign nondisclosure and noncompete agreements, these are often difficult to enforce, especially with suppliers from developing countries. Under the Governor model, the IP risk is shifted to the platform, which can be held liable if the contract is breached. Many Governor platforms have invested heavily in building safeguards against IP violations. TopCoder, for instance, can make all competitions within the game plan private and conduct background checks on participating coders. This, of course, entails additional cost for the buyer.

In all four models, managing the human cloud will require a deep understanding of best practices for outsourcing and collaborative project management. The person in charge will also need to know how to atomize processes and tasks as well as coordinate and handle input from a number of small, diverse, geographically remote suppliers, often with different cultural backgrounds. He or she will need a sure understanding of nonmonetary incentives, such as reputation building, learning and community engagement.

**What’s Next?**

Larger buyers like to buy from large suppliers. The two previous sourcing waves, outsourcing and offshoring, really took off only after the supplier marketplace had matured enough to match scale. New human cloud models now offer imaginative solutions to overcome coordination and control barriers involved in dealing with scale — with a large number of microsuppliers. We are already seeing evidence that some large corporations around the globe are beginning to take advantage of these platforms, mainly in the IT arena, but with adoption slowly migrating to other areas as well.

Unlike past sourcing waves, the human cloud will also dramatically benefit small buyers, the largely neglected long tail of global sourcing. They usually do not have the resources and expertise to outsource globally, but human cloud platforms extend these buyers’ reach. A human cloud should prove to be an equalizer for small businesses, allowing firms like Rief Media to compete with large companies that in the past have had the advantage of economies of scale.

The broader sourcing marketplace is also changing. The human cloud will reshape the outsourcing landscape much as cloud computing is
reshaping the software industry. We expect traditional outsourcing providers to move into the human cloud domain in the coming years, as some are already using crowdsourcing internally. Moreover, traditional labor-market middlemen are starting to perceive the threat of disintermediation, as human cloud platforms undermine their traditional strengths in providing local short-term labor.

In the coming years, we expect that human cloud platforms will innovate in three directions: task decomposition, real-time work and social governance. Human cloud platforms will develop intuitive visual tools to aid managers in segmenting a project into smaller tasks. Managers will be able to easily create workflows of tasks performed internally with tasks performed externally by a human cloud, leading to the disruption of the business process outsourcing industry. Advances in real-time crowdsourcing, where workers are paid a retainer to remain on call for work requests, will enable new forms of cloud sourcing. Finally, social governance techniques, which allow the best workers to manage, train and approve the work of others, will continue to evolve. Together, we expect all three directions to lead to a migration of many tasks from the Governor model to the Aggregator model.

Today, the human cloud is a small part of the global sourcing landscape. But it is growing rapidly as it continues to evolve. Major outsourcing and offshoring vendors are already experimenting with human clouds and likely will embed them in the services they provide. The pure-play human cloud platforms have already aggregated a global labor supply of millions of professionals. Now they need to find more customers who can use their services. We believe it is just a matter of time before they succeed in making the match.

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REFERENCES
2. Two other related phenomena are human computation and collective intelligence. Human computation takes advantage of human participation directed by a computational process in order to solve problems that computers alone cannot yet solve. For example, Google-owned reCAPTCHA leverages human computation to transcribe books and newspapers for which optical character recognition is not yet effective. Collective intelligence is more of an umbrella term that covers phenomena in which, as Malone, Laubacher and Dellarocas write, “large, loosely organized groups of people work together electronically in surprisingly effective (and seemingly intelligent) ways.” Examples of collective intelligence range from Linux, the first major open-source software development community, to Threadless, an online community where members submit and vote on T-shirt designs that the company then manufactures.


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Copyright © Massachusetts Institute of Technology, 2013. All rights reserved.
These days, more and more corporate employees are working at least part of the time from home offices. Working from home, or other types of remote work arrangements such as using a drop-in work center, can be beneficial to both employees and companies. However, our research suggests that these nontraditional arrangements also have hidden pitfalls. Employees who work remotely may end up getting lower performance evaluations, smaller raises and fewer promotions than their colleagues in the office — even if they work just as hard and just as long.

The difference is what we call passive face time. By that we are not referring to active interactions with coworkers or clients, but merely to being seen in the workplace. To be credited with passive face time you need only be observed at work; no information is required about what you are doing or how well you are doing it.

Even when in-office and remote employees are equally productive, our research suggests their supervisors might evaluate them differently because of differences in their passive face time. Especially in white-collar settings, the presence or absence of passive face time may influence evaluations used to determine the fitness of employees for specific tasks such as team leadership. As Jack and Suzy Welch wrote in a 2007 BusinessWeek column: “Companies rarely promote people into leadership roles who haven’t been consistently seen and measured. It’s a familiarity thing, and it’s a trust thing. We’re not saying that the people who get promoted are stars during every ‘crucible’ moment at the office, but at least they’re present and accounted for. And their presence says: Work is my top priority. I’m committed to this company. I want to lead. And I can.”

For the last decade we’ve studied the concept of passive face time from the perspective of hundreds of corporate workers, including both supervisors and subordinates. (Details of our research were published in the June 2010 issue of Human Relations. See “Related Research.”) We used observation, unstructured interviews and tightly controlled experiments to gather information about how passive face time affects employee evaluations. This data led us to three key findings.

1. There are two kinds of passive face time. The first, which we call expected face time, is simply being seen at work during normal business hours. The second, which we call extracurricular face time, is being seen at work outside of normal business hours — arriving before most employees
When you are at work is noticed by your coworkers and supervisors. “Who cares?” you might legitimately ask. It turns out your boss and coworkers do. This leads to our second finding.

2. Different kinds of face time lead to different evaluations. The two forms of passive face time lead to two kinds of “trait inferences,” or conclusions about what type of person someone is. Specifically, we found that expected face time led to inferences of the traits “responsible” and “dependable.” Just being seen at work, without any information about what you’re actually doing, leads people to think more highly of you.

You get labeled when you put in extracurricular face time, too. But rather than just being considered dependable, you can get upgraded to “committed” and “dedicated.” As one manager said:

There seems to be a norm that anyone hoping to move up in the management ranks needs to be here late at night and on the weekends. If you’re not willing to do that, you’re not going be seen as dedicated enough to get promoted.

3. Managers may not be aware they are making evaluations based on face time. Our interviews suggest that managers’ inferences based on passive face time are unintentional — even unconscious. This supports research findings that people generally form trait inferences spontaneously, without realizing they are doing so. As one subject we interviewed noted:

I think it really has sort of an automatic negative effect when a manager is in crisis mode, and they look and notice you’re not there. It’s kind of irritating to them if you’re not immediately available, or [on the other hand, comforting] if they can check and see you are there in the office, just in case they need you. Because they’re in crisis mode they may not even really
Remember what it was that irritated them, but they’ve just got this feeling that you’re unreliable or something.

To test our interview findings, we conducted a series of experiments in which managers from a dozen industries were asked to recall employee traits after reading written descriptions of the employees. If a participant mistakenly said that a trait—for example, “committed”—had been described as working late in the office, they were said to have unconsciously inferred that trait. The results were clear and robust across multiple samples: Managers were 9% more likely to unconsciously attribute the traits “dependable” and “responsible” to people who put in expected face time and 25% more likely to unconsciously attribute the traits “committed” and “dedicated” to people who put in extracurricular face time. These results were statistically significant across each of our experiments.

**Implications for Managers**

Our findings suggest several steps managers should take to prevent unfair employee assessments.

1. **Don’t use trait-based evaluations.**

Growing evidence from research on performance appraisal suggests that these evaluations are flawed in a number of ways, including not being linked to companies’ strategies or objective outputs and not helping employees understand what to change. Our findings add to this evidence by showing that trait-based evaluations—measuring employee “leadership ability” or “teamwork,” for example, may be biased by the mere physical presence of employees at the work site.

2. **As much as possible, use objective output measures.**

Critics of remote working arrangements have long suspected that telecommuters lose out on specific types of information, such as hallway conversations or impromptu help from coworkers. Our findings suggest that remote workers might be further handicapped by perceptions that they are not as responsible or committed as other employees. To avoid such unfair perceptions, managers who implement telecommuting and flexible hours should revise their performance appraisals to measure mostly objective outputs, such as number and type of projects completed or expert evaluations of project quality.

3. **Consider work arrangements when using peer feedback.**

Many organizations use “360-degree” appraisals in which employees are rated by peers and subordinates as well as managers. However, our research suggests that coworkers and subordinates may be just as prone to making unconscious trait judgments as managers are.

The bottom line is that employees should be wary of work arrangements that reduce their office face time, and supervisors should be wary of using trait-based performance measures, especially when evaluating remote workers. Finally, employees working remotely need to make sure they are evaluated on objective outputs. Barring that, you might consider sending an e-mail to your boss tonight . . . say, around midnight.

**REMOTE WORKERS’ FACE TIME TACTICS**

Many remote employees use “virtual” face time to make up for their absence from the office. Here are some common tactics, as described by employees in our study:

**Make regular phone or e-mail status reports.** **Used by 83% of remote workers.**

> “Take advantage of technology to let colleagues know you are working from home. When I work from home, I send my colleagues e-mail messages reporting progress. I try to make them aware that, while they left at 5 p.m., I am still working after 9 p.m.”

**Be extra visible when in the office.** **Used by 35% of remote workers.**

> “I work hard when I am at the office and point out to colleagues and my boss when I do things such as miss lunch and breaks because I am working to meet a deadline. I also make sure I meet with my supervisor every time I’m in the office to make sure he sees me and I can update him on what I’ve accomplished.”

**Be immediately available at home.** **Used by 26% of remote workers.**

> “When I’m working from home I respond immediately to e-mails, so that somebody isn’t sitting around saying, ‘She’s not in the office today so now I’ve got to wait for her to get back to me. I make sure I respond to people just as quickly as I would if I was in the office. And I have our phone systems’ pagers, so if somebody leaves me a message, it’s going to page me. So it’s not as if I’m not available if people need me. It’s not like I’m sitting in the back yard sun-bathing or something. They know they can get me.”

**Get others to talk you up.** **Used by 22% of remote workers.**

> “I try to make sure that my peers and the other directors know who I am. I make sure they know my name and what I’m doing. Whenever I get a chance I go say hello, say a couple of words about what I’m working on. The more they see me, the more they are going to remember me when it comes time for my appraisal. And they are likely to say a positive thing about me and talk about me to my supervisor.”

**E-mail or voice mail early or late in the day.** **Used by 20% of remote workers.**

> “I send voice mail late in the evening because my boss’s voice mail system would report what time the message was left and if it came from home or work. It was an important cue that I was working hard, even though he couldn’t see me.”
Five Ways to Improve Communication in Virtual Teams

N. SHARON HILL AND KATHRYN M. BARTOL

New research reveals simple strategies that boost performance.

As collaborative technologies proliferate, it is tempting to assume that more sophisticated tools will engender more effective virtual communication. However, our study of globally dispersed teams in a major multinational organization revealed that performance depends on how people use these technologies, not on the technologies themselves.

We asked team members to rate one another on virtual communication behaviors culled from a growing body of research on virtual teams. Peer assessments focused on five best practices: matching the technology to the task, making intentions clear, staying in sync, being responsive and supportive, and being open and inclusive. (Participants had worked together for some time and had been tasked with improving key business processes.) Individual scores were averaged to determine team scores.

When controlling for past experience on virtual teams and level of technology support available, we found that teams with higher scores on the five behaviors also received higher ratings from their leaders on producing quality deliverables, completing tasks on time, working productively together, and meeting or exceeding goals. Results indicated a linear relationship across the board: For every 10% that a team outscored other teams on virtual communication effectiveness, they also outscored those teams by 13% on overall performance. Although the research focused on dispersed teams, we believe the same strategies can help colocated teams, which increasingly depend on virtual collaboration tools.

Let’s look at each of the five behaviors in detail. They may seem basic at first glance, but we’ve observed that they are often overlooked. When teams are informed of these
simple strategies and take steps to implement them, they outperform teams that don’t.

1. **Match the technology to the task.**

Teams have many communication technologies at their disposal, ranging from email and chat platforms to web conferencing and videoconferencing. People often default to using the tool that is most convenient or familiar to them, but some technologies are better suited to certain tasks than others, and choosing the wrong one can lead to trouble.

Communication tools differ along a number of dimensions, including information richness (or the capacity to transfer nonverbal and other cues that help people interpret meaning) and the level of real-time interaction that is possible. A team’s communication tasks likewise vary in complexity, depending on the need to reconcile different viewpoints, give and receive feedback, or avoid the potential for misunderstanding. The purpose of the communication should determine the delivery mechanism.

So carefully consider your goals. Use leaner, text-based media such as email, chat, and bulletin boards when pushing information in one direction — for instance, when circulating routine information and plans, sharing ideas, and collecting simple data. Web conferencing and videoconferencing are richer, more interactive tools better suited to complex tasks such as problem-solving and negotiation, which require squaring different ideas and perspectives. Avoid trying to resolve potentially contentious interpersonal issues (telling people when they’ve made a mistake, are not pulling their weight, or that they have upset a teammate) over email or chat; opt instead for richer media to navigate sensitive territory. In short, the more complex the task, the closer you should be to in-person communication. And sometimes meeting face-to-face (if possible) is the best option.

2. **Make intentions clear.**

Most of our communication these days is text-based. Unfortunately, when text-based tools leave too much to interpretation, common biases and assumptions can cause misunderstandings and lead to unhealthy conflict that hurts team performance.

Intentions get lost in translation for several reasons:

- **People tend to be less guarded and more negative in writing.** When we cannot see the response of the person receiving the message, it’s easier to say things we would not say in person. Emboldened by technology and distance to complain, express anger, or even insult one another, team members can be more negative in writing than they would be face to face.

- **Negativity goes both ways.** People on the receiving end of written communication tend to interpret it more negatively than intended by the sender. Emotions are expressed and received mostly through nonverbal cues, which are largely missing from text-based communication. Research suggests that recipients of an email that is intended to convey positive emotions tend to interpret that message as emotionally neutral. Similarly, an email with a slightly negative tone is likely to be interpreted as more intensely negative than intended.
• **People read with different lenses.** In written messages, we often assume that others will focus on the things we think are important, and we overestimate the extent to which we have made our priorities clear. Unfortunately, it’s easy for critical information to get overlooked.

To prevent these biases from causing problems on your team, ensure that you are crystal clear about your intentions. Review important messages before sending them to make sure you have struck the right tone. Err on the side of pumping up the positivity or using emojis to convey emotion to mitigate the tendency toward negative interpretation. Go out of your way to emphasize important information, highlighting parts of the message that require attention, using “response requested” in the subject line, or separating requests into multiple emails to increase the salience of each one.

### 3. Stay in sync.

When team members don’t interact face to face, the risk of losing touch and getting out of step is greater. This can happen for **a number of reasons**. First, when teams are not colocated, it’s more difficult to tell when messages have been received and read, unless receipt is specifically acknowledged. Second, communication failures can lead to uneven distribution of information among team members. Individuals might be excluded from an important team email by mistake, for instance, leaving them unwittingly in the dark. Third, the lack of frequent in-person contact can create an out-of-sight, out-of-mind effect in which team members become distracted by local demands and emergencies and forget to keep their distant teammates informed. When one team member goes silent, the others are left guessing. Without accurate information, people often assume the worst.

Your team can overcome these challenges by prioritizing keeping everyone in the loop. Maintain regular communication with team members, and avoid lengthy silences. Proactively share information about your local situation, including unexpected emergencies, time demands, and priorities. Acknowledge receipt of important messages, even if immediate action isn’t possible. And give people the benefit of the doubt. Seek clarification to better understand others’ behaviors or intentions before jumping to conclusions. For instance, check in with your teammate who hasn’t responded to your time-sensitive message — maybe it hasn’t been received, or perhaps something urgent came up.

### 4. Be responsive and supportive.

The paradox in dispersed teamwork is that trust is more critical for effective functioning — but also more difficult to build — than in more traditional teams. Trust between teammates in the same workspace is influenced to a large extent by familiarity and liking; however, in dispersed teams, people must signal their trustworthiness by how they work with others on a task. To help develop trust on a virtual team, encourage everyone to respond promptly to requests from their teammates, take the time to provide substantive feedback, proactively suggest solutions to problems the team is facing, and maintain a positive and supportive tone in communications.
5. Be open and inclusive.

Dispersed teams are more likely to have members from different cultures, backgrounds, and experiences. While diversity can result in a greater variety of ideas, which boosts team creativity and performance, virtual communication sometimes discourages team members from speaking up, making it challenging to capitalize on these benefits. Virtual tools reduce the social cues that help team members bond, which can diminish motivation to share ideas and information. People may also hold back when they can't directly observe teammates' reactions to their contributions. In addition, when dispersed teams consist of subgroups at different locations, there is a natural tendency to communicate more within a local subgroup than across the entire team. This can be particularly challenging for leaders, who may be criticized for unfairly giving more attention to local team members.

To reap the benefits of your virtual team’s diversity, focus on communicating as openly and inclusively as possible. Involve the whole team in important communications and decisions. Actively solicit perspectives and viewpoints from all team members, especially those in other locations, to demonstrate openness to different ideas and approaches to a task. And when working to resolve differences of opinion, seek to integrate the best of the team’s ideas.

The Role of Leadership

Don’t assume that everyone on your team is aware of potential pitfalls with virtual communication or of the five key behaviors that improve performance. We suggest creating a team charter that describes how you will work together. Specify technologies the team will or won’t use for different tasks (“Don’t use email to discuss sensitive interpersonal issues”); standard formats and etiquette for written communications (“Highlight or bold to emphasize action items in emails”); plans for keeping everyone in sync (“Let the team know ahead of time if a commitment or deadline cannot be met”); expected time to respond to requests (“Acknowledge receipt within 24 hours”); and types of communication that should always be shared with everyone (“Use the ‘would you want to know?’ rule of thumb”). We’ve found that clearly conveyed norms do make a difference.

Our research also shows that people with prior experience in collaborating virtually had higher virtual communication ratings. Leaders can rely on those team members to model effective behaviors — and can model the behaviors themselves — to raise the whole group to a higher standard.

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