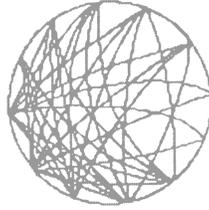

CHAPTER 8



PEOPLE

On the Ice Together

NCAA Division 1 men's college ice hockey teams are small—around 20 players in total. The typical number of skaters on the ice at any one moment is 12, six on each side. Each player has a position, a role, but when they go into action, skating as fast as they can with their eyes on the puck, one another, and the goal all at once, it's hard to tell who's doing what. Team movement mesmerizes: The puck flies; a stick catches it and splits in two; its owner whirls backward; players streak across the ice and crash into one another; the fans scream, “Skate! Shoot!” We are glad none is our child.

It's such an exhausting sport that every 60 seconds or so, all the skaters head for their respective benches to rest as fresh replacements climb over the boards and onto the ice. The speed of the whole operation is dizzying, with teams and subteams forming and re-forming, depending on the task at hand. Coaches keep the process moving: They call players, suggest plays, and draw configurations on pieces of paper that players crowd around to see.

At crunch time, they abandon typical rules. The number of people on the ice becomes unbalanced from one side to the other. In their first face-off of the twenty-first century, Yale is down 1 on Harvard's ice (home teams usually have an advantage). Coach Tim Taylor pulls his

goalie in the last two minutes (the deadline), replacing him with an additional forward. That gives Yale six offensive players against Harvard's five. It is an all-out drive to reach the goal(ie), and the team needs all available hands.

Such is life in virtual teams. Small numbers, constantly shifting. Some people go all out while others rest, then just as quickly they switch positions. Operating with commonly agreed protocols, virtual teams invent new ones in the crunch. All available hands means everyone is "on the ice," a requirement for keeping up in Internet time. Everyone focuses on the same goal, each has a role, and when the team is in high action, leadership moves from person to person. You're at the center now, then on the side while someone else leads. The team leader or coach (or maybe both) keeps an eye on the whole, making sure everyone is playing, participating. Every move is a play; learning to play is the key.

"All of Us Smarter than Any of Us"

For Hank McKinnell, Pfizer's president and chief operating officer, "Virtual teams are a big part of the way we do business. We don't have all the good ideas in the world and we're in different places." Searle (its comarketing partner for the drug, Celebrex®) is in Chicago; Eisai Company Ltd. (its comarketing partner for the Alzheimer's drug Aricept®) is in Japan. "You either learn how to do virtual teams or you travel."¹

With its acquisition of Warner-Lambert, Pfizer is the world's second largest pharmaceutical company. Today McKinnell is talking about bandwidth. He is excited about the company's videoconferencing system, which links the 5,000-person sales force at real-time speed.

The future is a monumental challenge for companies like Pfizer. Each day of its final drug development process costs \$1 million in direct expenses. Use multiples to calculate the lost market opportunity for each of those days. At the same time, the company is expanding the number of compounds it develops simultaneously, while integrating one of its competitors. The company's people epitomize specialized knowledge workers. They practice science and produce ideas in a rigorous sequence that involves industry, government, and consumers. Anything, everything that speeds up processes while maintaining quality is to Pfizer's advantage.

“We have cross-functional, collaborative virtual teams at every level,” says Joe Bonito, Pfizer’s senior director for Worldwide Organizational Effectiveness. “They are the way we develop our products, and our competitive advantage lies in our ability to work with our ‘co-promote’ partners.”

Pfizer brings its global product development teams together to launch them, then sends them off to carry out their plans virtually. “We have a large catalytic event that gets people face-to-face for a period of time to build trust and personal connection. We develop shared aspirations, clarity of purpose, goals, and an action plan,” Bonito says. Then the teams return to their home locations to carry out the plan.

Pfizer’s Central Research organization is experimenting with a combination of face-to-face meetings and up-to-the-minute virtual team rooms. “Teams are just such complex things, and virtual, cross-functional teams are several orders more complex,” says Jim McCarthy, senior adviser in its Team Effectiveness group, which supports the company’s research and development teams. He cautions: “You really do need to do your homework if you’re going to bring your teams online. Your job is to diffuse complexity. It’s a very different process, and part of the battle is having people understand that there is value in doing work differently. People tend to see things online and believe that they have to interact with everything. You just need to think of web-based team processes as sets of just-in-time tools; use only what you need when you need it.”

Hank McKinnell, a laptop-carrying executive, is a good role model for the company. He’s a Ph.D. who in his college days programmed an IBM 1401 in machine language. “I moved the wires around in the back of the machine,” he remembers. Pfizer was the first pharmaceutical company to put its annual report on the Internet in 1994.² The experiences that have helped McKinnell most in his career? Joining Pfizer, spending half his work life outside the United States, and learning to type in high school.

“I started 28 years ago at Pfizer in Japan, so a very early part of my experience was learning consensus. I’ve been in the minority several times in my career, and that made a real impression on me,” McKinnell says. “The demographics of the workforce are driving us. We can’t count on nine-to-five, five days a week, largely male and white employees. It’s

just not like that anymore. We have to draw the best and brightest from all segments. Diversity benefits us when there are more people around the table holding different views.”

“It’s a challenge when we have to team up with people who are different,” says Bonito, who sees “a shift from resistance as the senior executives have said teamwork is the way we want to manage our business. Even if we underestimated how hard it would be to work with Searle or its parent, Monsanto, we’ve gotten smarter. We’re becoming more transparent about how decisions get made and how long they take. In our organization, it’s pretty clear to us who can make what decisions. But when you work with partners, you don’t know who makes what decisions at what levels.”

“It took 150 years to build this company,” McKinnell says, referring to Pfizer’s beginnings in Brooklyn, New York, in 1849, the year of the California gold rush. We have a very successful organization; it’s not broken, but we want to fix it *before* it gets broken. We’ve recognized the benefits of cross-functional teamwork. The silos are disappearing.”

Reinventing Government

The National Museum of American History in Washington, D.C., houses an exhibit heralding the start of the information revolution. A female mannequin stands in a nineteenth-century office, while a male wax figure in a Victorian business suit watches her. She literally is *cutting the red tape* that binds brown accordion folders stuffed with papers. On this day, the organization of information makes its next big move—into the newly invented wooden filing cabinet.

Bureaucracy, a word first used by Thomas Carlyle in 1848 (he called it the “continental nuisance”), institutionalizes the storage of information, embodied in the written word. In fact, the now extinct root word *buirel* means a writing desk. This treatment of written material where ideas are physically encased, typically with only private access, is quite different from its treatment in networks. “Information wants to be free,” Stewart Brand has been saying since PCs were invented.³

On a steamy end-of-August dog day in 1993, most people in the capital had left for vacation. Yet across the street from the museum, the

vestibule of the Mellon Auditorium, with its three-story-tall marble columns and oak floors so old that they could no longer be sanded, was crowded and noisy with 200 people.

They were registering for a conference. Its purpose? To launch a network of federal employees who participated in the first stage of “reinventing government.” We were there as designers and facilitators of the three-day getting-started process.

Reinvent the U.S. government? Isn’t this the proverbial oxymoron? Even if you could, skeptics say, would you want to?

In 1993, the United States was not the only country looking at reinvention: Australia, Canada, Denmark, Great Britain, France, Sweden, and New Zealand, as well as a few less likely candidates (Italy, Mexico, India, Chile, Palestine, South Africa, and Germany), were but some of the countries that were reinventing. Virtually every state in the Union has had some type of reinvention effort under way, as have hundreds of cities and towns, including such differing places as New York City, Youngstown, Ohio, and even tiny Sanford, Maine, where then-police chief, Gordon Paul, became an expert in quality and networking.⁴

All this governmental introspection is easy to understand. Like most other centuries’-old organizations, the U.S. government no longer can cope with its problems in the same way it has in the past.

The twenty-first century is about speed and information, knowledge and competence, complexity and wisdom. The nineteenth century was about slow, steady progress, factories and railroads, clockworks and mechanisms. Industrial Age organizations ill serve the turmoil of the Network Age.

Launching NetResults

Marion Metcalf was one of the original 200 “crusading federal bureaucrats” who staffed the government’s 1993 National Performance Review. A graduate of Brown University with a master’s in city and regional planning from Harvard, she joined from the Justice Department where she’d worked for a number of years. NPR had an exceptionally cross-boundary design for a government initiative. The “volunteers” from 22 major agencies went to NPR for five months, forming 33 cross-functional teams,

including 11 “systems” teams that looked at department-spanning issues like finance and organizational design. Their mandate was to come up with a plan for reinvention.

The rule for the agency teams was that people could not “reinvent” their own departments. Metcalf, for example, whose day job was in the Enforcement Office at the Immigration and Naturalization Service, served on the Department of Labor team. For the systems teams, “NPR recruited recognized reformers (by networking to find out who they were!),” Metcalf explained,⁵ mentioning Vincette Goerl, then a financial manager at the General Services Administration (now chief financial officer at the U.S. Forest Service), who worked on the Financial Management Team.

The beauty of this design was that it depended on the real experts—the people who, on a daily basis, ground out the federal government. No one knew better than they the pain of securing 23 signatures for a simple travel voucher or the labor-intensive paper-pushing process that could make buying a PC a three-year ordeal. Many generations of PCs develop, grow, and die in that time.

NPR invited numerous management consultants to address the staff at brown-bag lunches and keynotes. Tom Peters kicked off the Labor Department’s reinvention effort with a packed house of 1,500 at the Mellon Auditorium. Joseph Juran, Peter Senge, Daryl Connor, and Shoshanna Zuboff, to name just a few, along with executives from many companies coping with complex change, got their 15 minutes, many in front of Vice President Al Gore, who sponsored the reinvention campaign.

We became involved because Metcalf had a sore throat. Our third book on the development of networked organizations, *The TeamNet Factor*, was still in galleys when Seattle-based Robert Gilman, publisher of *In Context*,⁶ read it on a flight to Washington. When he landed, he called Al Gilman (his brother and Marion’s husband), who was at choral practice,⁷ which Marion had skipped due to her sore throat. Marion and Robert started talking, and she explained her new assignment working for the vice president. The toughest problem, she said, was getting agencies and internal departments to work together across boundaries. Robert told her about our book, and soon we, too, were volunteering at NPR in summer 1993.

By early August, Carolyn Lukensmeyer, NPR's deputy director at the time, who was working with Andy Campbell (then an organization development director at the CIA), Metcalf, Goerl and a handful of others, asked for our help. "I'm a believer in networking," says Bob Stone, who at that time was director of NPR. "Carolyn said that there are these people with ideas about networks and we ought to be working on it. In recent years, my leadership style has tended to let people follow their hearts if they thought there was something really worthwhile."⁸

People were wondering what would happen when they returned to their home agencies. Their experience had turned them into evangelists. How could they go back to, in many cases, their dreary, paper-pushing, meeting-infested, low-results jobs? Couldn't they stay connected in some way, continuing to exchange ideas while actively working to implement the recommendations? Stone's nod of the head gave the go-ahead to launch a *people network* that would link the returning army of reinventing-government believers.

Six hundred people were invited, and a third showed up in that last week of August. They stayed together over two days, with dozens coming and going, simultaneous break-out and plenary sessions, late-night huddles, boxed lunches, and palettes of flipcharts. In the same auditorium where the president presents the annual Malcolm Baldrige National Quality Awards, NetResults⁹ named itself, crafted a set of goals, expressed its preferences for how to communicate, developed a plan, and agreed upon a mission statement:

"To serve as a communication vehicle and catalyst to facilitate broad participation, stimulate leadership, and support the goals, strategies, activities, and achievements of continuous government improvement."

Operating only informally, NetResults soon linked thousands of people in different agencies through face-to-face meetings, informal exchange of memos, and via the Internet,¹⁰ where fly scads of conversations, e-mails, opinions, articles, drop-in chats, and online computer conferences.¹¹

The NPR web site carries the history and accomplishments of the overall effort: size of government reduced by 350,000; elimination of nearly three-quarters of a million pages of internal rules; and savings of about \$137 billion, to name a few. The top goal for Year 2001? “Achieve outcomes no agency can achieve alone.”

“There’s no way to tell how much good you’re doing in such an effort,” says Bob Stone, who retired as “energizer in chief” of NPR in 1999. The net result is most evident, he believes, in the networks and networking spawned by the people who participate: Financial and procurement executives from across government remain tightly linked¹²; information reaches places the same day that formerly took months to arrive; and people like Metcalf receive awards for encouraging greater cooperation.

“This isn’t a technology thing,” Stone says. “This is a communication thing.”

The Net Results

Marion Metcalf received a standing ovation from a packed Riverside Baptist Church in Washington, D.C., on December 17, 1999. It was her memorial service; Metcalf had died suddenly the previous Saturday at the age of 44. Her family, friends, and colleagues were celebrating Metcalf’s life, including an award just the month before from the U.S. Immigration and Naturalization Service Commissioner and the Government Technology Leadership Award. She was the team leader for INS’s Green Card team that overhauled how the agency’s lead product would be produced.

When Metcalf took over the project, “INS had only one facility producing the [green] cards, and it just couldn’t keep up with demand. To make matters worse, INS had created more types of cards over the years. This meant different systems producing the different cards. But INS has put those days behind it,”¹³ wrote Joshua Dean in *Gov.Exec.com*, which also gave Metcalf’s team an award.

Such was her challenge when she arrived. New technology choices caused a stalemate, while the old system was so antiquated that no one wanted to use it any longer. Typical government silos prevented people with good solutions and new approaches from being able to implement them.

“She understood that her job was to be a manager, not a single-handed problem solver. She understood that what she was managing was a crosscutting team, not a standing-line organization,” says Al Gilman, who himself coleads a worldwide working group for the World Wide Web Consortium.¹⁴

***What Are We Going to Do with(out) Marion?*¹⁵**

There were few dry eyes at Marion Metcalf’s memorial service as her brother Larry repeated this phrase. Friends and family came from across the country, including people who knew her best online.

Metcalf’s NPR experience turned her into a prodigious online networker. Although severe congenital scoliosis prevented her from straightening her limbs (thus the refrain, “What are we going to do with Marion?”), she angled toward the keyboard and typed as fast as anyone you’ve ever seen. She helped launch NetResults, posting hundreds of messages, set up web sites for government, nonprofits, and friends, kept in touch with a family listserv, and became a guiding voice in SPIRIT, the women’s conference housed on Caucus’s¹⁶ online network.

Her death was shattering to this small electronic community. “How, I wonder, can it be that someone can become such a big part of my life when I only met her three or four times?” wrote Jennifer Sutton, a University of Oregon graduate student who traveled across the country to read poems at Metcalf’s memorial. “I sent her lots of things I read. And so often she would respond with such probing questions, intelligent insights.”¹⁷

Sutton is blind. Such is the power of networking in the Network Age.

Stress

While it’s not easy to be a member or leader of a team, it’s even more difficult in a virtual team deep in the flux of change. All the self-doubting questions that any team member asks (“What am I doing here? Do they need me? Am I included? Who’s the leader? How aggressive do I need to be? Will I measure up?”) are even more exaggerated when the group lacks daily face-to-face contact.

Doubts, concerns, perceived problems, and boredom mingle with

excitement, opportunities, caring, satisfaction, and even exhilaration. To be part of a team is to continuously work a dynamic tension deep in the heart of being human.

I must simultaneously be “me,” an independent individual, and “we,” an interdependent person in a group.

Each of us grapples with this tension between the need to *separate* or *differentiate*, to enhance our *individuality*, and the need to *integrate*—to bond in groups.

Complements, Not Opposites

Cooperation requires independence. This apparent contradiction is the challenge of working well with other people.

Too often, the individual and the group post to opposite sides of the wall, each vying to prevail in a win-lose contest. We characterize entire cultures as individualistic (United States) or group-oriented (Japan).

In reality, *me* and *we* are complements, not opposites. This is the key to resolving the paradox.

Virtual teams are high-connectivity organizations.

To a significant degree, virtual teams self-manage. For them to succeed, people must be independent and capable of making quick yet thoughtful decisions. Virtual people need to know more, decide more, do more. Clear agreements on purpose coupled with personal commitment comprise one part of the equation; open, accessible, comprehensive information and communication environments are the other. These make possible the ongoing conversation that is the team's process.

Sture Karlsson, managing director of an internal service company that is part of TetraPak, the Swedish packaging company, puts it this way,

“People must know more about the vision and purpose when they cannot lean on the side of the organizational box they belong to.”

It gets more complicated if you are simultaneously a leader of teams of people who work for you *and* a member of teams of peers and bosses. “Me” is me personally, but also me representing “my team.” “We” is the family feeling of “me and the people who report to me,” *and* it is also the language of “me and my peers” with the person we work for. How can people be both “me” and “we?”

The CEO View

To see *me* and *we* across the boundaries of a virtual team, adopt the “CEO view,” a fundamental personal and virtual skill.

Tom Botts, Natural Gas Director for Shell U.K, is trying to build a cohesive group from three distinct organizational cultures and multiple ethnic ones. “The key is not just getting people to know one another but knitting them together. They need a compelling story that everyone can hold. How and why does this thing fit together?” he asks.

“They need to not just affiliate with their units but with this long value chain of gas products and services. We’ve had some success in getting people to grasp the bigger picture.” Botts has put together the Gas Leadership Network of the top 40 people in the Gas Directorate. “The first time we got together it was very stilted, and everyone was very cautious,” he remembers. “We did an exercise on stereotypes and the same stereotypes emerged group by group. We tacked them up on the wall and they all were identical. You could feel tension go out of room. Now, a year into it, the Gas Leadership Network is really demonstrating its leadership capacity and making a real difference in the business.”

Metaphorically, leaders are like Janus, the Roman god of beginnings and endings, who guards doorways. The god of portals has two faces, one that looks in and the other that looks out.

The Janus leader views life from the boundary—looking inward to the group itself and outward to the environment.

The CEO's view is a natural Janus view. The top-level leader sits on the organization's boundary, balancing internal needs and capabilities with external assessments and strategies. Internally, the organization is a web of relationships, while externally a web of relationships enmeshes the organization itself. Not only at-the-top leaders, but leaders at every level sit on boundaries. Simultaneously they peer up and down and in and out.

From Janus's view, people are *holons*. People are both wholes and parts. Holon means *whole* ("hol-") and *part* ("-on"). As individuals, people are parts of groups; as leaders they stand for the whole.

Arthur Koestler originally coined the word *holon*.¹⁸ It concisely expresses the idea that everything (atoms, cells, solar systems, cars, people) is simultaneously a *whole* in and of itself and a *part* within something larger.

Usually called *hierarchy* by scientists, the holon is a central principle of general systems theory. It is the idea that everything—life and the universe and everything in between—structures itself in levels, "subsystems comprising systems within suprasystems." Mathematicians talk about "sets of sets." Nobel Laureate Herbert Simon called hierarchy the "architecture of complexity."¹⁹ (See Chapter 11, "Theory.")

Simple word, complex idea. We use the holon (hierarchy) idea every time we use money, outline a report, store a file, find a reference, or check an organization chart. When we go up a level to a higher authority, broader scope, or more abstract view, we use the holon idea literally. We also use it when we go down a level to more detail, narrower scope, and more-concrete views.

Strange a word as it is for most people (though The Police used it in an early-1980s song), holon can stand for organizations, small groups, and individuals. Stripped to its mathematical essence and used in the context of technology, a holon is a *node*. People and virtual teams are nodes in networks. A node may be simple—one person—or it may unfold into a whole universe. America Online is only one node on the Internet, but millions of people are attached to it. A team is a node in a larger organization, and it comprises member nodes linked into a network.

Members, leaders, and levels resolve the me/we paradox. They turn

flesh-and-blood huggable people into intangible hard-to-grasp virtual teams.

Members

The experience of finding oneself on too many teams is not unusual. Most people are members of multiple groups. We all take part in a constantly changing personal pageant of many small groups simultaneously—family, community, friendship, and affinity groups as well as task-oriented work teams. In each group and team, we play different roles. People are not parts of groups in the same way that hearts are parts of bodies. Only in the extreme (slavery, for instance) does a group own people body and soul.

Like people, roles are integral to groups. People animate roles that belong to the group.

Roles

The role mediates between an independent individual and his or her expected behavior in the group. What sociologist Erving Goffman calls the basic “unit of socialization,” roles naturally arise informally in small groups and are more felt than visible. In larger organizations, roles tend to take on more trappings through titles, written job descriptions, and personal contracts.

Although you cannot see them, you experience the importance of roles by talking about your part in a group: “What is my role?” or “That role’s already filled” or “I can fill that role” or even, as you are leaving, “There’s no role for me.”

Roles translate between me and we, between the bottomless complexity of individual people and the comparative simplicity of playing a part in a group.

Roles are easier to see in their more formal presentation as *positions*. People usually diagram positions in relationship to other positions; organization charts show which person reports to whom. Positions clearly belong to the organization that sets them up and can just as easily take them away.

An open position—a formal role—stands by itself as a sometimes-gaping hole in an organization, an empty place in the structure. When a person steps into a position, a classic dynamic arises between the characteristics of the particular person and the legacy of expectations that the role conveys. Once populated anew, the role both shapes and is shaped by the person who occupies it (Figure 8.1). This becomes even more complex when the team is virtual.

People also carry their formal positions into the many teams they join. Sometimes this is appropriate; sometimes it is not. In virtual teams with limited face-to-face interaction, roles rise in importance. Consider that in virtual teams

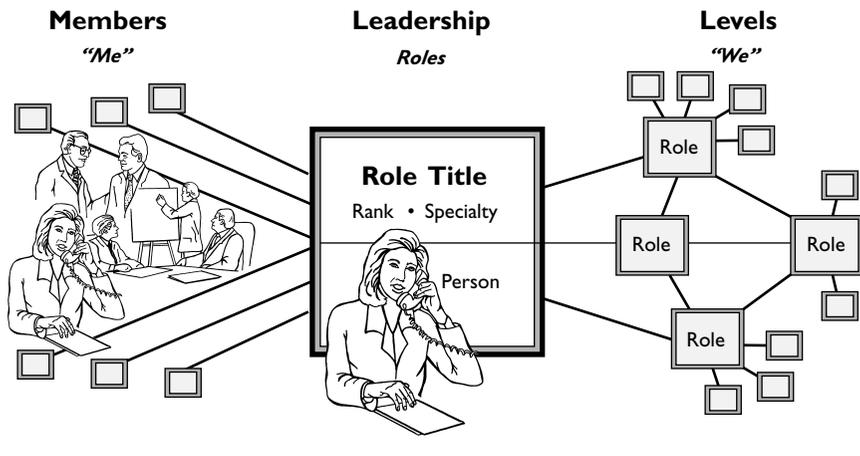
- People typically play multiple roles, often many more than in conventional teams.
- Roles require greater clarification. Expectations need to be made more explicit than in colocated teams.
- At the same time, role flexibility is essential because the process is dynamic and roles change constantly.

Me

Respect for the individual is a core value of all the great team companies. The trick is to develop greater cross-boundary capabilities without diminishing—better yet, while enhancing—the independence of individuals and teams.

Enhance independence as you strengthen interdependence.

Figure 8.1 Roles Integrate “Me” and “We”



Independence permeates every level of organization—from people as members of teams to teams as parts of larger organizations to the independence required of companies in alliances. All groups need a minimal level of independence and decision making in relationship to the larger system. Virtual teams need even more.

Independence can never be complete or absolute; not for people, teams, companies, or nations. Independence is always a matter of degree along a range from “too little” to “sufficient” to “optimal” and, finally, “too much.”

Because virtual teams need higher levels of *interdependence* in roles, they require correspondingly higher levels of relative *independence* and voluntary behavior in the individual members.

Leaders

One leader makes for a good sound bite, but it takes more than one to lead a successful virtual team.

Insofar as the sudden proliferation of virtual teams is in some ways a harking back to a simpler way of organizing, it is instructive to look at how the most original teams handled leadership. In forager societies,

there are many informal leaders. Among the !Kung tribe in the Kalahari Desert in Botswana, a foraging society that has survived thousands of years in spite of tremendous threat, leaders influence but they do not force.

Traditional anthropology interpreted such systems as being without a leader (*acephalous*, meaning “no head”). Then in the late 1960s, University of Minnesota anthropologists Virginia Hine and Luther Gerlach confirmed that this is actually a form of many-headed (*polycephalous*)²⁰ distributed leadership. Herbalists, hunters, midwives, warriors, and other particularly skilled or knowledgeable people take the lead as circumstances require. To one frustrated researcher trying to identify a single local leader, a !Kung elder said,

“Of course we have headmen! In fact, we are all headmen. . . . Each one of us is headman over himself!”²¹

Virtual teams take a page from the !Kung book. As organizations that require much more leadership than conventional colocated teams, they nevertheless have much lower overall coordination cost. This only works if everyone understands and assumes part of the expanded virtual leadership burden.

Grasping a Group

Decades of research on small groups and teams have turned up this major insight: The only universal role observed in groups is leadership.

Virtual teams are leader-full not leader-less.

Leadership is pervasive in virtual teams. The leadership structure as a whole is an inclusive set of related roles of leaders and followers. Reuben Harris, chair of the Department of Systems Management at the Naval

Postgraduate School, has identified six basic leadership roles that virtual teams require:

- Coordinator
- Designer
- Disseminator
- Tech-net manager
- Socio-net manager
- Executive champion

The transformation of a person into representing a group by way of leadership is a miracle of social construction. Leaders are convenient handles to help members and outside observers alike grasp groups.

When confronted with complex ideas, people have a habit of using one part of the idea to represent the whole.²² “Wall Street” stands for the complexity of U.S. financial markets; the “Oval Office” stands for the presidency and Executive Branch of government.

The phrase, “I belong to Gail’s group,” shows one person representing a whole group, nowhere more obvious than in the role of the CEO. Here, a person stands for a corporate entity that may include thousands of people, “speaking for” the organization externally and “speaking to” the group internally.

The habit of simplifying complexity by grasping a prominent part can translate into single-pointed leadership. Cultures even build in this view. Such is the case at one major company that requires every project to have a single “designated responsible individual.”

Although virtual teams may have single leaders, multiple leaders are the norm rather than the exception.²³ Virtual teams that deal with complex issues and problems invariably have shared leadership, regardless of the titles they use for convenience.

Many authors of books on teams simply assume without discussion that a team needs a single leader. A few distinguish, as we do, between formal leadership (governance), which may be singular, and the broader multiple leadership that always arises in a successful, healthy team. “In successful teams, leadership is shared,” states Glenn Parker unequivocally.²⁴

In the earliest teams, the camp teams, leadership was informal and distributed, based on influence rather than authority. We are in many ways returning to the organic structures of that era, albeit with a fantastic new capability to create nonterritorial spaces and share information.

Social and Task Leaders

Virtual teams typically have at least two kinds of leaders—social leaders and task leaders, a distinction first made in the 1950s:

- Task leaders are oriented to expertise, activities, and decisions required to accomplish results. Productivity measures task success. This is of central importance to virtual teams, since here “task rules.”
- Social leaders arise from interactions that generate feelings of group identity, status, attractiveness, and personal satisfaction. Group cohesion measures social leadership success and is equally critical to virtual teams sustaining themselves.

In a traditional hierarchy-bureaucracy, social leadership simplifies and formalizes as a place in the authority structure. Task leadership boils down to one core expertise. A typical role title reveals both the social and task aspects. Consider the vice president for manufacturing:

- The vice president is a designation of social rank, a level in an authority structure—the *hierarchy* part of the title.
- Manufacturing is a label of task specialization, pointing to an area of expertise—the *bureaucracy* part of the title.

How do you convey rank online? New interactive media such as e-mail pose unforeseen problems to the existing authority structure. In work areas, for example, space displays importance (a closed office versus a cubicle), signs offer titles, and choice of attire differentiates employees from executives.

Rank—having it and using it—is a major challenge for virtual groups.

A new team often defines its expertise roles before it locates the members who populate them. This is in itself a step toward virtuality. Imagine a team that does not yet exist. It is most often the search for the right people, those with needed expertise and experience, that leads to different locations and organizations—and the consequent formation of a virtual team.

While rank is confusing, specialization is booming in virtual teams. Your area of expertise most often defines your role in task-oriented virtual teams.

“I can’t think of any project that we do on our own. There is just too much to know and there are too many specialties in the built environment,” says Gary Wheeler, leader of the Chicago office of Perkins & Will, the architectural, engineering, and interior design firm and past president of the American Society of Interior Design. Wheeler’s office is just completing a project for ADC, the Minneapolis-based broadband company. “We did all the program interviews over their intranet site, allowing up to 5,000 people the opportunity to give input. We got 30 to 40 percent response where normally we get 10 to 20 percent. We’re involving people from HR, IT, facilities, and management on the core team. We validated our findings with them, then shared them with leadership. A great deal was done via the net.” This is a completely new way to work for a company as grounded in place as an architecture and design firm.

Managing the challenges of virtual team life also brings the opportunity to involve the best minds and most experienced people, wherever in the world they may be. In time, great teams will become the norm as we climb the learning curve of distributed work.

Levels

Big organizations are made up of smaller organizations that are made up of even smaller groups. Small groups tie together organizations from the front line to the executive suite to the boardroom.

As the basic unit of organization, how big is a small group? How big is a group of small groups? Does being virtual make a difference in size?

At the Virtual Table²⁵

The number of people on a team is one of those things that appears so obvious that it is easy to miss its significance. All teams, after all, have a size that refers to the number of members. Size also accounts for the internal communications burden and the number and variety of interactions and relationships that the team requires.

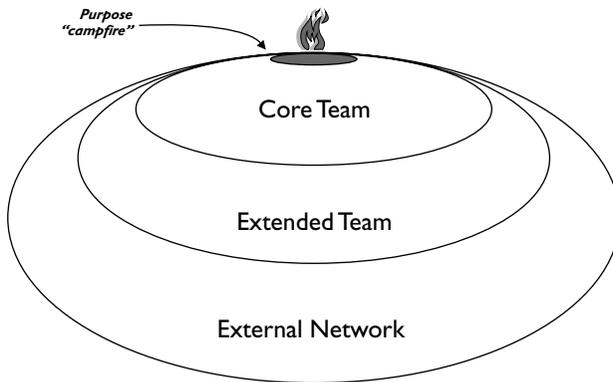
The size of a colocated team is rather immediately apparent, and membership is usually clear. In virtual teams, size often becomes fuzzy, swelling and contracting as individuals come and go. Virtual membership boundaries often have degrees of “centralness” or “bands of involvement”—a core group, an extended team, and an external network of partners (Figure 8.2).

Millions of years of experience indicate there are two natural breakpoints in the size of small groups: 5 and 25.

Experienced team leaders, researchers, and popular writers alike agree that the ideal core team ranges in size from four to seven members. This is, not so coincidentally perhaps, the same size as a typical Stone Age family and not very different in size from many families today.

Is there a lower limit to team size? One debate among researchers is whether two people, technically known as a *dyad*, are enough to constitute a group. Three people, so some thinking goes, bring enough diversity to qualify: Three nodes offer multiple communication pathways and the possibility of subgroups and cliques.

Figure 8.2 Rings of Involvement



For us personally, this is not a question: Two *can* team. As friends, lovers, spouses, parents, business partners, and even coauthors (this is our sixth book), we surely are a very small but very complex group. Even two people can play many roles with one another, with a great diversity of communication (and potential for misunderstanding) between them.

Is there an upper limit on how big a team or small group can be? People suggest differing numbers here, but generally 15 to 25 people is the upper limit. When you get to 25, however, small subgroups typically form. Some writers offer different rules for measuring the size of small groups, such as “the number that allows everyone to know everyone else” or “whatever size can form a functional unity.”

Teamnets

Teams do not exist in isolation. For millions of years, teaming occurred in camps and groups of camps (Figure 8.3). This remains true today, even if “the camp” often goes unrecognized.

The nomadic family yoked together between four and seven people as its basic socioeconomic unit, the same size as today’s typical team. From time immemorial, these small units naturally congregated into larger associations. Camps involving clusters of four to six families appear to be as universal as the family itself. The Olduvai Gorge in Tanzania, for

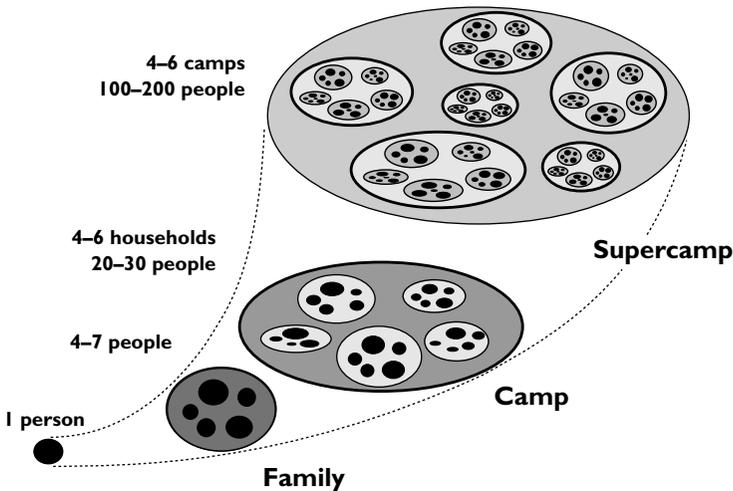
example, reveals that base camps of 25 to 30 people existed as early as 1.7 million years ago, at the very beginning of the Stone Age in the Lower Paleolithic era.

Researchers call this “the magic number 25,”²⁶ five camps of five families averaging five members each. Twenty-five is also the number of people in most everyone’s “persisting lifelong network.” These are the folks who are closest to you throughout your life, staying with you despite job changes, divorces, births, deaths, and moves from one locale to another.

With more than 25 or 30 people, a comfortable meeting becomes difficult and starts to turn into a conference, and people cease to be entirely familiar with one another. All of this becomes more murky, however, when people are online. How many people can maintain a reasonable conversation online? We suspect that, for now, the same number applies to virtual teams. More than 25 people on a core distributed team leads to loss of intimacy required to sustain meaningful communication.

At the next level, nomadic era camps invariably joined up in a supercamp, a local network of four to ten camps or so who together identified the foraging territory of a “local group.”

Figure 8.3 Early Evolution of Team Levels



These supercamps are comparable to a large group of 100 to 200 people, another natural cleavage point in modern organizations. W. L. Gore & Associates, the folks who brought Gore-Tex to the world, keep their plant size to a maximum of 150 to 200, which founder Wilbert (“Bill”) Gore believed was the number at which human achievement peaks. Larger than that, he said, and people start to get in one another’s way.

When people call a group that is bigger than a handful or two of people a “team,” they usually are referring to a “team of teams.” This is a group that has a common set of cross-team goals and interdependent tasks—what we call a *teamnet*, a network of teams.²⁷ Understanding the appropriate internal team structure is an often overlooked design issue. People sometimes make these often contentious subgroup definition decisions too early, too make-it-or-break-it-confrontationally, or too unconsciously and off-handedly.

There is no one “right” size for virtual teams. Size depends first on the task at hand and second on the unique constraints and opportunities of the situation.

Generally, the more complex and diverse the task, the larger and more diverse the team needs to be—more expertise, more people. Although more people bring more talent, they also bring along the need for more coordination, and that generates its own problems. Adding people helps performance up to a point. Then the law of diminishing returns sets in. Before long, more people degrade performance.²⁸ After a limit, which seems to vary by task, more people may actually do less. Sound familiar?

Big, big, qualifier: Since these rules regarding size come from millions of years of experience with collocation, it is only a starting point for estimating the appropriate sizing and clustering for virtual teams.

Virtual teams can be successful only if people cooperatively manage and coordinate membership and leadership. With the skills and infrastructures in place to multiply and share leadership, we are seeing some teams explode the apparent limits on productive size. Virtual teams

tend to have relatively smaller active core groups and larger overall memberships.

No Team Is an Island

For fast, flexible, productive, virtual teams, the work shapes the organizational structure. Indeed, it is in their internal work design that the intelligence of the group manifests. The process, categories of work, and relationships shape the interactions and ongoing conversation that is the team “thinking out loud.”

With each new level of organization, new team roles and responsibilities emerge. A group with an identity itself becomes an “individual.” The team acts and is perceived as a unit at the next level of organization. Teams that are really humming often become very inwardly focused, sometimes creating bonds that rival family ones in strength.

Warning: Virtual team success can breed insularity.

Management movements like quality and reengineering created a new myth: *the team as hero*.²⁹ While this recognizes the renewed importance of small groups, it also can invest the team with rampant, competitive, isolationism. Independent teams without interteam interdependence can fragment corporate structure.

We are in danger of moving from isolated bureaucrats sitting in specialized boxes to isolated teams of disconnected specialists.

The *team-alone* syndrome dominates many businesses and other organizations. Individual teams spring up as challenges arise that the existing hierarchy-bureaucracy cannot manage. Generally unconnected

to one another, these teams are rarely part of a conscious strategy to grow the organization to meet the challenges of accelerating change.

Some companies are already working in twenty-first-century, virtual team style. For Pfizer, Buckman Labs, and Sun Microsystems, virtual teams are, over time, a key business strategy. They offer competitive advantage for meeting challenges of speed, cost-effectiveness, and quality in a global, customer-focused, rapidly changing economy.

How is this possible? Because the human ability to connect has increased exponentially.

