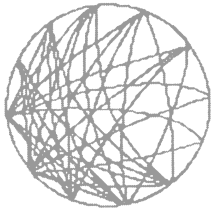
CHAPTER 3



TEAMS

Toward the Twenty-Second Century

"Long Distance Operator.
This is Memphis, Tennessee."

—Chuck Berry, 1958

"90% people, 10% technology.
This is Memphis, Tennessee."

—Bob Buckman, 2000

The city famous for Elvis, Beale Street, and the blues is also home to a company now celebrated in virtual team circles. Buckman Labs is a long-time innovator with its problem-solving, customer-centric, globe-circling "knowledge transfer" network. After more than a decade of pioneering, Buckman has answered many questions that other companies are just starting to ask.

Our Company Never Closes

Buckman Laboratories International, Inc., with $310 million in revenues, provides specialty chemicals to the pulp and paper, water, and leather

industries. Buckman products allow manufacture of paper products, swimming pools without algae, and leather for Toyota and Lexus car seats.

Bob Buckman, former chairman and CEO of Bulab Holdings, Inc., the holding company of Buckman Labs, takes a small note card and a pen from his breast pocket and draws a little picture to illustrate his vision. "The number of connections among people multiplies exponentially when all are linked point to point," he says, putting his pen to the midpoints where the connections *between* the people intersect. You need a company where everyone has access to the collective intelligence of the organization regardless of time or space, he believes.

Buckman inherited his company from his parents, Stanley and Mertie, who started Buckman Laboratories in 1945[1] with five associates in the small back office of a former lumberyard not far from Café Society, the popular Memphis eatery where we're having lunch. Their single customer, Whiting Paper Company, needed its product, a microbicide that three years later became the industry standard. The company continued its steady growth until 1978 when things changed suddenly: Bob's father died at the office of a heart attack.

Bob unexpectedly found himself chief executive. Buckman Labs is a different company from the one his parents started. When he took over, the company was well on its way to becoming the firm it is today. The enterprise comprises operations in 22 countries, employs 1,300 people speaking at least 15 languages, and produces more than a thousand products. Bob also has a different management style from his father. Twenty-six people reported directly to "Dr. Stanley," an unworkable structure in his son's estimation. So, from his earliest days, "Bob" worked to create a less bureaucratic, more responsive, and very intelligent organization.

In his speeches, Buckman refers to 1984 as the starting point for his company's "journey—it's not a project," he says.[2] That year he met author Tom Peters, whose 1983 best-seller, *In Search of Excellence,* coauthored with Robert Waterman, revolutionized how people look at their businesses (and broke open the business-book industry). Buckman was among the first to attend Peters's Skunkcamp—designed by Reuben Harris,[3] Peters's then-partner (the two had met as doctoral students at Stanford Graduate Business School)—an intensive week-long course on unconven-

tional business ideas. Buckman eventually sent most of his senior management to the program.

Fate intervened again in the mid-1980s when Buckman ruptured a disk that left him flat on his back for several weeks. His mind had been churning since meeting Peters and Harris, (who joined the Buckman board of directors in 1999) and he began experimenting. But when he found himself unable even to sit up, he realized that if he couldn't get to his office, he would be completely cut off from work. He wondered: "Why do organizations spend huge sums of money on systems that function only when people are in the office?" He not only characterized the lives of his executives, managers, and people in sales but also anticipated changes ahead.

Buckman came up with the idea that fit his immediate need and would catalyze the redesign of the company.

He decided to put everyone online.

His experiment proved so successful that everyone from Peters himself to Fast Company to Harvard Business School has written about it. HBS's case study describes Buckman's mission this way: "If he could connect people through a network, he could 'replace the depth of knowledge offered in a multi-tier hierarchy with the breadth of knowledge that is the sum of the collective experience of employees.' "[4]

In 1992, before the general commercial availability of the Internet, K'Netix, the Buckman Knowledge Network, was born, an online system that allowed everyone in the company to talk to everyone else anywhere at any time. In a pre-web era, it was a major challenge to get thousands of people around the world comfortable with logging in every day to solicit and contribute advice to people they rarely if ever saw.

The impetus for K'Netix was the desire to share best practices for solving customer problems. "We couldn't run Ph.Ds around the world fast enough at the speed that we needed," Buckman recalls. How did he do it? Buckman offered these thoughts on successful implementation from his twenty-first-century hindsight:

- *Technology.* Everyone in the global Buckman network has access to PCs and laptops. When they travel, they can take "electronic first aid" kits with them, equipped with whatever they will need for where they're going (telephone connectors, adapters, and cables).
- *Free, unrestricted access to the Internet.* "We say, 'Go play, go learn.' People have to learn how to be comfortable with technology," he says.
- *Coaching and facilitation.* For the first several years, coaches regularly spent 12 hours a day online just helping people become comfortable. Today, every online discussion area has its own moderator, many of whom have gone on to invent their own ways of working online.
- *Culture change.* "It's 90 percent culture change and 10 percent technology," he says. "It's people who bring about the change in the way that they work."

Alison Tucker, now director of Global Media and Promotions for Buckman, is the company's original online coach and over the years has participated in each online innovation.

She says she spent "endless amounts of time online. I was learning to manage all these crazy discussions. When we started out, half the things going on were not business-related—people talking about their kids and their dogs. We've always been this global company, but people didn't have a chance to talk until this happened. We'd have chat sessions [real-time, online text exchanges] at 5:30 or 6:00 P.M. Memphis time with people saying, 'I have to go answer the phone or door.' People in Japan were telling jokes to people in Brazil.

"Our use was very high at the beginning while everyone was learning, and now it's leveled out," Tucker says. "The key thing is to be patient and advertise, advertise, advertise to your people. We didn't have anybody to learn from. And we still don't, but we're learning from each other."

The initial getting-to-know-one-another frenzy lasted for about three months before things began to settle down into scientific and business conversations.

To encourage company-wide participation, Buckman himself takes to the world circuit. He gives speeches on the role of knowledge transfer and his belief that the company's intelligence lies "between the ears of the people, not in some database." From the beginning, he has been an active daily participant. "It has to have unequivocal leadership at the top," he says.

For the first six months of K'Netix, the company ran weekly reports to see who was participating and who was not. Every Friday morning, everyone in the company received a report via e-mail that listed the people who had not logged in by the previous afternoon. Buckman himself sent messages to these people asking why they weren't online and whether they needed any help. The desire to be absent from the list was so strong that the reports were discontinued after only six months.

Soon, people were participating in dozens of knowledge-sharing meetings online. Customer problems that once took days to resolve could be answered in a few hours.

By today's stupefying technology standards, the Buckman global network was—and remains—fairly elementary. After its first five years using a cumbersome IBM network that required different codes for different countries, the company moved to CompuServe in 1992.

"We chose CompuServe because of ease of use," explains Tucker. It offers local dial-in numbers in all the countries where Buckman has operations. While other companies have developed complex groupware and knowledge management systems, Buckman chooses instead to outsource and buy retail. ("The only reason companies create their own systems today is ego!" Buckman says emphatically.)

CompuServe, now part of its former arch rival America Online, also offers simple software for online discussions, called *forums.* Each forum is on a separate topic, and any authorized person can read and post messages. Because it captures everything electronically, the system maintains its own ongoing discussion history that can track decision making and problem solving. Buckman has numerous forums on topics germane to its business, including everything from customers to strategy to new product development. The forums are portable; when Buckman switches platforms again to Internet newsgroups the forum topics continue.

From Drums to Advice

Steve Buckman (Bob's cousin), now the Buckman Labs' CEO, recalls how different customers are today from the past. "Fifteen years ago, they said, 'If you don't make it, why are we talking to you?' Now they say, 'We know you don't make it but go find it, buy it, and make it work.' We're really an intermediary."

Buckman Labs' customer, SAPPI, an Italian papermaker early to automate, is planning a new system to bring out a new grade of paper in South Africa. "They sent a simple e-mail with their query and they got back 10 articles on how to do it. They were just amazed we would do this for them. Customers want us as consultants on how to solve their problems, but they also want us to bring in the product. We don't want to have to go three different places to solve the problem, procure the chemicals, and implement it in their production system," Steve Buckman explains.

The company's business model is maturing. As products become commodities, a company like Buckman "just can't pump things out quickly enough. We're all selling the same kinds of chemistry," says Sheldon Ellis, vice president of the Bulab Learning Center. Today Buckman is also a service company where knowledge is the capital. "We actually can make more money solving problems and handling processes for customers than shipping drums [of chemicals] alone," Ellis says.[5]

In May 1997, Bob Buckman asked Ellis to pull together a plan for the Bulab Learning Center, where education and training can be delivered to the Associates anytime anywhere in the world on an as-needed basis. "Bob said he wanted the Learning Center operational in less than a month," Ellis recalls. "I went to two folks from the Knowledge Transfer Division [knowledge management and information technology groups] with business skills and said, 'I'm asking you to leave what you're doing and get on the ride of your life. This will be the coolest thing you've ever done.'

"We built the architecture then plugged in everything we could find. I was reading how to do [Lotus] Notes development on a tour bus in Mexico, and my modem burned out, so I had to have a new one FedExed. We worked day and night and threw a lot of things together very, very quickly."

Three-and-a-half weeks later, Bulab Learning Center is operational with 75 courses available online.

Today the Learning Center employs 10 people from Asia, South America, and the United States who speak 11 languages and come from a variety of specialties: a chemical engineer, an agronomist, a computer scientist, a papermaking scientist, a political scientist, and a Spanish linguist. Among their many ambitions is one to make the site fully accessible in the company's four principal tongues—English, Spanish, Portuguese, and German. "There aren't many others trying to do a multilingual, academic, technical, personal/professional, career-development, learning-center web site," Ellis says.

They offer "knowledge" in many media, including traditional face-to-face courses with hard copy (they call it "standup"). The Learning Center produces thousands of CDs, offers 500 online courses through partnerships with 20 universities, stores countless presentations and documents, and is developing new ideas by the day. "We're constantly taking things up and down," as Ellis puts it, regularly trying things out on the site.

"Philosophically we're going to more contextual learning," Ellis says. "Instead of long classes, we're developing just-in-the-nick-of-time learning nuggets around what people need to know." They're also setting up communities of practice that offer, for example, the group of microbiologists across the company "a voice and a platform and mechanism to be able to build" the tools they need. "We're creating virtual places for people to learn." By redefining the approach and radically lowering the cost of delivery, Buckman is now able to offer the courses free to the students.

The Culture Shop

Edson Peredo, the company's president and a Brazilian who ran operations there for many years, describes himself as "not a fancy user but a frequent user." Peredo believes that cultural barriers "will be there for years to come," preventing people from using technology to its greatest advantage. "Most of my people still prefer face-to-face or at least a phone call. Perhaps this is due to the degree of trust and sensitivity about information that goes across the table or phone line. But as far as transferring information, I wouldn't give that up for anything," he says citing how he just down-

loaded a 45-page document. "Next week someone will be asking me about the specific document and I can say. 'Yes, I've seen it,' and that's how it benefits my work."

And just the month before, he called on a customer in California whom he had been e-mailing. "I felt like I'd been there before, I know these people and we're not strangers to each other. We exchange notes and pictures over the Internet, and you quickly find commonalities between you and your customers. Without our culture, that would not be possible. You would have to sit down for days to have the same relationship."[6]

Mark Koskiniemi, vice president for Human Relations at Buckman Labs, is thinking ahead about how to expand learning in the organization. "We can do it by hiring the latest and greatest graduates. But then what? That led us to distance learning and distributed learning that really have for the first time knocked down the socioeconomic barriers to education. We've leveled the playing field from Canada to Brazil to South Africa. The next step is for our associates to continue to grow and learn and educate themselves, then to refresh our education for ourselves and our children. You never know where the new knowledge is going to come from. The Bulab Learning Center has been created to fill the gap.

"There's a really important 'watch out for.' Don't expect the technology to do it all itself," Koskiniemi says. "It's culture, culture, culture. Top management has to support it; they lead by example. Bob is pushing the frontier with tools that we're providing. People who can use the tools get promoted. You don't need to bankrupt yourself on technology."

Customer Benefits

Although he is an engineer and a statistician (undergraduate degree from Purdue University in chemical engineering and an MBA from the University of Chicago), Buckman sounds at times like a communications theorist. For people to be effective, Buckman says, they need information that increases their "Span of Communication" and thus their "Span of Influence."[7] "Technology will allow you to change the 'Span of Communication' of an Associate, but it takes culture change to effect an individual's 'Span of Influence,' " he says.

"The speed at which you can communicate defines how quickly you can make money," Buckman says. "If I can respond to a customer in six hours anywhere in the world at any time, that's a competitive advantage. As the speed of communication increases, customer response time moves toward instantaneity [a Buckmanism]. That redefines competition. Any entrepreneur in the world will understand that."

Buckman says that to unleash the power of the individual, everyone has to "radically change their span of communication, and I mean radically. Anyone should be able to talk to anyone else inside and outside the organization. We want to close the gap with the customer. How do we increase our cash flow with the customer? By increasing our power on the front line. But that can only happen if the individual has good Spans of Communication and Influence."

Buckman's goal is to have 80 percent of the company "effectively engaged on the front line," that is, directly connected with customer needs. "If you're not doing something useful for a customer, why are you here?" He has only a few percentage points to go before having quintupled the number from 16 percent in 1979.

A company like Buckman is the latest in a long line of innovations centered on small groups working together. As a species, we've been working on this form of organization for a long time.

Team 101

Over thousands of years, human life has spawned myriad small groups. To see what is special about *teams* we need to understand what's common to all small groups. Then we can see what's particular to virtual teams.

Luckily, researchers show considerable agreement on how teams differ from *groups*—even if their precise definitions of them contrast.

Small Groups

Today, a very clear model of small-group characteristics stands with considerable consensus behind it.[8] Indeed, the general framework established in the mid-1980s has enjoyed a decade of testing and exploration.[9]

- Two or more individuals
- Interaction among group members
- Interdependence

This leads to a very short three-word definition of a small group:

Individuals interacting interdependently.

People become a group by virtue of doing things of mutual benefit together. A small group is *not* a random collection of people, like a crowd crossing a street or passengers on a plane. *Groups* of people have more; they have an interrelatedness and a common motivation that adds up to more than just a bunch of individuals.

A collection of people becomes a group when the whole is more than the sum of the parts.

It is very rare that a new small group arises out of nowhere. Usually, small groups arise from preexisting ones—the CFO network that grows out of a multinational finance organization, the pickup basketball team that follows the playground building project, the book club that grows out of the "art crit" group that grows out of the 50-something students at Massachusetts College of Art. Most small groups are part of networks and other larger organizations.

Individual *members* of the group define its boundaries. What allows people to say they are "in" the group while others are "out"? People who are on an e-mail distribution list establish themselves as members of that virtual group. If you are not on the list, you are not a member. Membership, as recognized by insiders and outsiders alike, gives a group its essential boundary.

The second element of small groups is *interaction*—people connecting with people. Communication, the means of connection that provides pathways for human relationships, is inherently a shared activity.

The third element is *interdependence,* which means what many people think of as "unifying purpose" or "shared goals." Interdependence—joint purpose and shared motivation—is essential to form individuals into something more, a group. The words *individuals interacting* are not sufficient to define a small group.

Synergy is the word Buckminster Fuller popularized to describe the "something more" characteristic. In virtual teams, ephemeral synergy arises from purpose pursued.

"We put the 'x' in dot-com" reads the in-joke marketing message among members of a product management group. Nonsense, anyone else would say. Not at all, replies the team. The "message" erupted in one of countless exchanges about how to position the product. The *x* itself then became a verb. For this team, "x-ing" something means applying the product's power to it.

Language, first invented in the earliest forager camps, continues to evolve all the time in groups today. Acronyms, stock phrases, and in-jokes are verbal indicators of group cohesion. Our company affectionately refers to our early product development stages as "hops." We collectively speak millions of dialects, whether in the small towns of Sicily or the web rooms of software development groups. They are our common tongues.

For millennia, small-group communications means that people talk to one another face-to-face, using the medium of sound waves traveling through air. We are genetically programmed to assume that most small-group communication is face-to-face. But reality is changing.

The move to virtual work is the most dramatic change in the nature of the small group since humans acquired the capacity to talk to one another.

Tasks Mean Teams

What are teams? The step from small groups to teams is short and simple. Both the scientific literature and the popular press express the distinction in the same clear way:

Teams exist for some task-oriented purpose.[10]

Orientation to task is what distinguishes teams from other types of small groups. While all small groups carry out tasks to some degree (as well as make decisions and support social interactions), task *is* the primary focus for teams. All other aspects are ancillary.

While purpose is fundamental to all groups, teams are specifically, deliberately, and invariably about results. Tasks are the work, the common process, that leads to results, the joint aspiration at the end. When they set goals, teams project their results and commit to the tasks required to carry them out.

Tasks also create team boundaries. Certain members with special skills must be part of the group for success. Different members shape and reshape the purpose and tasks of the group. Indeed, the goals and tasks often exist before the team identifies its members. The feedback loop between task definition and appropriate membership becomes a core defining process during a team's early development.

While task distinguishes teams from small groups, boundary-crossing differentiates traditional teams and virtual ones. It is the day-in-and-day-out reality of communicating, interacting, and building relationships across space, time, and organizations that makes teams virtual.

Four Ages of Small

We once had a cat named Small, named for E. F. Schumacher's famous dictum (and book), *Small Is Beautiful.*[11] When it comes to people organizing effectively, small is indeed beautiful—and very old.

Over the ages, we have become increasingly adept at being in small groups. When hierarchy came along, people did not stop meeting and performing in small numbers. When bureaucracy evolved, hierarchs did not throw down their scepters and call it a day. Industrial bureaucracies depend upon the small groups that populate their ranks and levels. While developing its own signature characteristics, each age also incorporates essential organizational features of the ones before it.

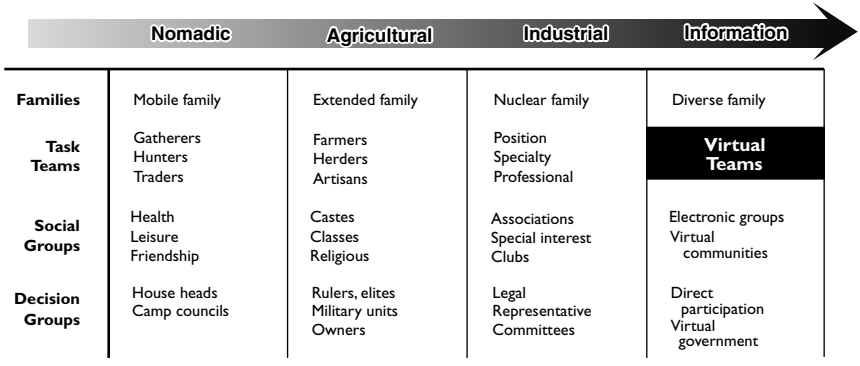
Networks, the organizations of the Information Age, incorporate aspects of their predecessors: levels of hierarchies, specialties of bureaucracy, and clear membership of small groups.

Old forms do not, however, endure unchanged. With each new age, new versions of old forms supplement the organizational repertoire. In our most basic everyday life, we are shaped by human experience millions of years old. Awareness of our long history in small groups (Figure 3.1) offers a bountiful source of experience to call upon as we spread our virtual wings. It's in our social DNA.

Families and Camps

The mobile family, foraging to survive, is the basic social unit of the nomadic era. Relatively small, these families were partly self-sufficient and partly interdependent with other families. Together, they periodically set up camp in larger groups. Once in the camps, task groups naturally took shape. Hunters, gatherers, and traders joined forces according to circumstance and need.

Figure 3.1 Four Ages of Small Groups



The first teams were task-oriented groups in nomadic era camps.

Camps also stimulated relationships outside the family. These *nonkin affinity networks,* as the anthropologists call them, allowed people to have friends, share information, extend healing, encourage hobbies, enjoy leisure and recreation, and participate in adventures. Without cooperation across kin lines, humanity never would have gone beyond subsistence. These "virtual" kinships, what anthropologists call *fictive kinships,* were critical to human progress—and remain so.

The Agriculture of Groups

In the agricultural era, families grew larger and more extended. Farmers and herders, the new economic task units, crowded out hunters and gatherers. Skilled toolmakers evolved into artisans. With them came masters of the trade with their own small shops and apprentices. Society stratified into castes and classes. Religious groups proliferated as common spiritual lives integrated larger communities inhabiting bigger societies.

The great organizational structures of this time were ruling elites and military units. To protect land, agrarian settlements marshaled military hierarchies to coerce people.

But organized violence was not the only contribution of this age. The invention of hierarchy brought along a positive development: clear efficient authority structures with ranks and small group units combining into ever larger units. This innovation of multilevel social structure was a great leap forward in the human capacity to organize large numbers of people.

At the same time, the first cornerstone of capitalism was laid. Military and religious leaders became owners of land previously held by the groups who lived on it. In economic terms, ownership reverberates to our own day as the ultimate source of coercive authority—the right to hire, fire, and sell.

This timeless feature is the bedrock of hierarchical rights and responsibilities in companies. Executives confront an apparent dilemma when they try to team with one another because by their nature they are hierarchical decision makers. They actually have a dual nature—hierarchs who are guardians of supreme power and team members who are partners in power. Executive groups find it particularly difficult to be effective task teams.

Organization as Machine

In the Industrial Age, the typical family size shrank again, becoming more nuclear. While remaining key in society, the family abruptly ended its preeminence in the economic domain.

Instead, segmented, specialized work ruled. Task-oriented bureaucratic units became the basis for economic gain. Rules bound replicable operating units. The units in turn aggregated into larger mechanical processes that produced predictable results. Society viewed small groups of all sorts as interchangeable, replaceable parts of the machine organization.

The great social invention of bureaucracy is formal representation under law. Here, small groups stand for larger communities of people. New organizations defined by constitutions, laws, policies, and procedures created numerous bureaucratic small-group structures—from supreme courts to city councils.

The Information Era Small Group

At the dawn of the third millennium, increasingly diverse styles of families proliferate. The nature and role of the family are hot topics. Families are again a significant economic unit, not just as consumers but as joint ventures with two or more income streams.

At work, distributed, decentralized, flexible organizations are replacing colocated groups. The technological capacity to share information and the staggering increase in the ability to communicate provide fertile soil. *Virtual teams,* the new boundary-spanning, task-oriented working groups born of the Information Age, abound.

Crossing Boundaries

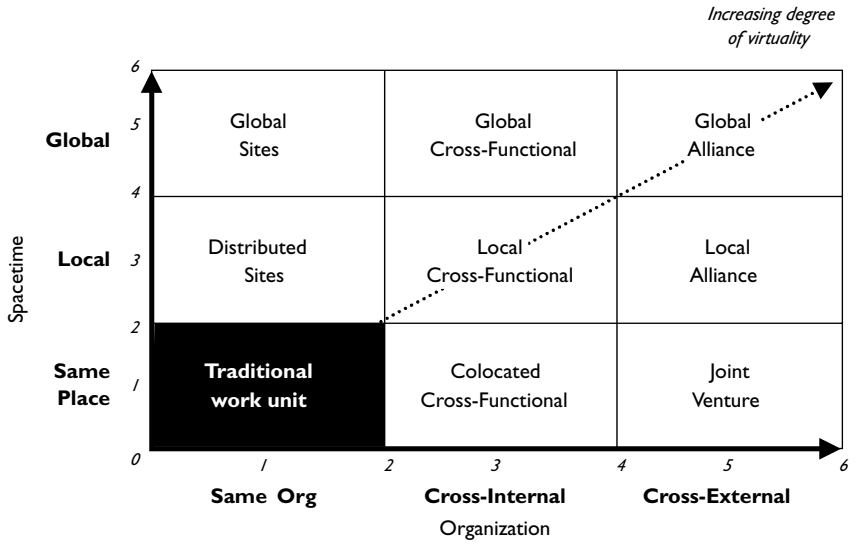
Buckman Labs is a sea of virtual teams that constantly form and dissolve. To solve a customer problem, a global virtual team comes together without anyone chartering it. The group includes anyone in the company who chooses to participate on a particular topic. When the discussion is over, the virtual team disbands.

Buckman's teams are quite different from traditional task groups comprising people from the same organization functioning in the same place at the same time—the conventional nine-to-five office and the assembly-line seven-to-three shift of industry.

We need some coordinates to explore the new type of team in this unfamiliar terrain (Figure 3.2). One dimension *is* familiar: distance over space and time. Another less obvious but extremely important perspective is that of organizational "distance."

Virtual teams come in different varieties, each with unique characteristics, that require nuances of behavior to be effective.

Figure 3.2 Varieties of Virtuality



Distributed Teams

Distributed teams comprise people in the same organization who work in different places. They may operate interdependently, as is the case with Buckman Labs' research and development operation, distributed across all the company's sites. This contrasts with the branches of FleetBoston's First Community Bank, which operate relatively separately albeit under the same brand.

Teams with members in different places clearly have to solve the distance problem, and the further away, the bigger the distance problem. Perhaps just one person is situated remotely. Perhaps several are. Sometimes everyone is in a different place. It's all relative.

The ability to work at a distance reshapes the traditional headquarters-field relationship. Under the old model, site managers belonged to the same organization but rarely worked as a team. Indeed, branch offices, one familiar example of de facto distributed teams, often are encouraged to compete in a system that pits one against the other in the effort to maximize output and beat quotas.

When branches work together, however, they form virtual teams of people in the same organization situated in different places. The 47 branch managers of First Community Bank formed a team among themselves to address common service issues and to develop cross-branch priorities based on their own needs and shared learning. Branch teams face the same problems of crossing space and time as more organizationally diverse virtual teams. Local intergroup boundaries are sometimes more difficult to bridge than more distant affiliations because of competition over contiguous organizational borders.

Even if not distributed in space, virtual teams can be spread out in time. Teams of shifts and groups of managers and professionals-on-the-move share facilities—people in the same organization who use the same place at different times—but are not really colocated.

Cross-Organizational Teams

In traditional Industrial Age–type colocated teams, people worked side by side in the same space at the same time on interdependent tasks for

the same organization. Several decades ago, even before the new communications technologies were widely available, one form of virtual team began to appear: the cross-functional team.

Today, cross-organizational teams are common. They comprise people from different organizations who work together in the same or different places. At Buckman Labs, an informal group of people—who number between 4 and 15 according to Buckman Lab's Alison Tucker—all work in Memphis, but for different Buckman organizations. Though their task is to brand the company's products, only some members of the team are from marketing.

In the classic cross-functional group, experts and stakeholders come together to solve problems or seize opportunities that require cooperation across organizational boundaries. Shell's Strategic Initiative Teams (see Chapter 2, "Networks"), which come together physically to develop a new organizational strategy for the 100-year-old company, include geophysicists, financiers, marketeers, production superintendents, executives, organization development consultants, and boilermakers. They continue their regular jobs while devoting the equivalent of another full-time job to the new Shell initiative.

As organizations span greater distances, the option to colocate people shrinks even as the ability to work at a distance grows. Relocation itself is increasingly difficult because of people's unwillingness to move and spiraling costs. Shortening project time frames underscore the lack of cost justification for moving people. Today's teams *must* form while remaining spread out.

Double Whammy

Of greatest challenge are those teams that are both distributed and cross-organizational, involving people from different organizations who work in different places.

Most work combines a pattern of individual and group tasks, time spent working alone and time spent working with others. For most virtual teams, *synchronous* interaction—shared time—is a scarce resource, whether face-to-face or at a distance. For best results, time together is planned, prepared for, and followed up on.

Time creates a complication that not even instantaneous communication can solve. As distance and time-zone crossing increases, the window of synchronicity in the workday compresses. New England is six hours behind Europe, and people in California leave work just as their counterparts start their next day in Japan. Even when real-time interaction is possible technically, it may not be practical.

Without face-to-face or other real-time interaction, this extreme but increasingly common form of virtual team tests the limits. How it deals with contentious issues virtually is as important as how greatly it shines in sharing information and solving technical problems.

How Virtual Are You?

Do you participate in or know about a virtual team? Where would this team or others fit on the two cross-boundary scales in Figure 3.2? Use the numbers along the side to mark judgments you make. Multiply the two scores to create a simple "virtuality index" for comparing different teams and networks.

Is there a starting point for boundary crossing? "Headquarters and field" typify the common pattern of distributed work. "Here" may be the organization and place where the leader sits, where the bulk of the team has workplaces, and/or where the sponsor or support system is located. Increasingly, however, no place is home (the zero point of each dimension), and everyone is relatively virtual. Then it is especially important to quickly open and populate an online place to contain the team's identity.

Consider all the members and stakeholders in your example group. Note where people are located to see the boundaries that the team crosses. Think about the impact of distance on a person-by-person basis to assess the likely frequency of face-to-face contact and the relative cost of the team getting together. The 50-foot rule (Chapter 1, "Why") suggests that people have to be very close together to gain the advantage of spontaneous interaction. Beyond that close range, cost and travel time increase with each greater distance. When people are face-to-face, take into account cultural differences in regard to personal-proximity "comfort zones."

The subscore on each dimension gives an indication of the general degree of difficulty the team will face in working virtually.

- A virtual team distributed in space and time, but from the same organization, is likely to find that communications and participation issues dominate its development. Consider how much time the team will spend together (synchronous) and how much asynchronous interaction it requires.
- A colocated, cross-organizational team is likely to experience difficulty establishing a common purpose and making decisions. Typically, you will need more time, more cycles, and more patience to deal with the details as you translate a broad, shared mission into goals and tasks.
- Virtual teams that are both distributed and cross-organizational will experience both stretched communications and stressful purpose setting. These are the teams most in need of new ways to work and technology-support infrastructures.

The People Boundary

By implication, traditional work means that people speak the same language and take their nonverbal cues from the same broader culture. Today, even when people are in the same location, the chances are high that they speak different languages.

Virtual teams break this traditional cultural boundary mold. When people occupy different places and come from different organizations, they can be certain that they will have to communicate across culture and custom with different languages. The language differences that virtual teams have to contend with are not all born of different country tongues. Two people from different professional upbringings can have almost as much problem communicating as two people who grow up speaking English and Japanese.

When teams go global, their language and culture issues clearly loom larger. However, all teams of the future will have to cope with the fact of increasing diversity in the workplace. Not only is the workforce becoming more diverse, but the task requirements of complex work demand that a more diverse group of people work together, whether in traditional settings or in virtual teams.

Sometimes colocated teams have even greater difficulty dealing with variations of language and culture than do virtual teams. Because they are less aware of their communication barriers, colocated teams do not necessarily create appropriate compensations. There is an analogy here to the relationship between distance and collaboration. Data show that people are somewhat less likely to communicate with a colleague upstairs in the same building than with one in another building.[12] When people know they are at a distance—culturally and linguistically as well as spatially—they are more conscious of the need to be explicit and intentional about communication.

More often than not, the first issue that arises for people working virtually is trust.