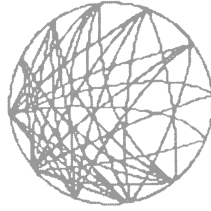

CHAPTER 6



TIME

The Virtual Pulse

People intuitively use the word *network* with a remarkable consistency that continues to surprise us. The idea evokes a clear, simple mental model, a structure of points or circles and connecting lines—nodes and links, vibrant with purposeful activity. Where people get fuzzy is in describing how a network or virtual team actually does anything coherent, how it moves in time.

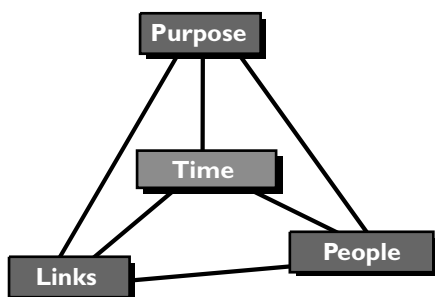
Dimensions

As we see it, this is a problem of perception. To see something like a network or virtual team, you need to look at it from several points of view simultaneously. The people-purpose-links-time model provides four inter-related dimensions for seeing a group. With this model, you can hold something as distributed as a network and something as immediate as a virtual team—people linking with purpose over time. (See Figure 6.1.)

On the Wings of a Big Bid

April 24, 1991, was a big day at Digital Equipment Corporation, a peak day just before the long decline and eventual disappearance (into Compaq) of this groundbreaking company. McDonnell Douglas, now a part of

Figure 6.1 Four-Dimension Model



Boeing, chose Digital as one of two final bidders to become the computer systems integrator for its new commercial jumbo jet, the MD-12. To respond to this highly complex bid, Digital's core team of nine needed to expand to about 50 people—technical experts from across the company representing several dozen disciplines. To win, Digital had to rapidly create and make operational a team that would cross traditional boundaries.

A few days after Digital's selection as a finalist, the core team met to plan its next steps in Digital's Irvine, California, facility. Irvine is just a short ride south on Route 405 from Douglas Aircraft's Long Beach headquarters. The planning meeting was a raucous event, according to one participant. With phones ringing and people coming and going, the group still managed to churn out some of the essentials: a mission statement, a list of broad goals, a key-concepts graphic, and the invitation list for the second meeting a week later.

The group statement of purpose—to win the MD-12 bid and prepare Digital to deliver on the contract—expresses why the group wants to cooperate for mutual benefit.

Two weeks later, the MD-12 Team numbered 30. It met in Irvine again to integrate new people, repeating the process the core group went

through. The team reviewed the purpose, translated it into a clear set of goals, and began to assign tasks.

Ten days after that, a third planning meeting took place, this time in Massachusetts, near Digital's home base on the East Coast. Fifty people attended, representing engineering, manufacturing, and services. They reiterated all the aspects of the plan and subdivided into seven distinct Goal Teams. Each addressed a separate objective, each had its own leader, and each depended on people working together from different functions. Tasks were designed and assigned for each component part of the proposal to Douglas. Each Goal Team competed for management attention, organizational support, and allocation of overall resources, both within the team and with other parts of the corporation.

Down Select

As a close-to-the-customer salesman, Paul Beltis brought Digital the MD-12 project. As a longtime vendor to Douglas, Beltis invested in personal relationships and chance encounters at the customer site. Eventually, he detected the early signs of a new program that in time would need a systems integrator. *Systems integrators* tie together the disparate parts of an organization's computer installations. Since at that time, in the early 1990s, most companies bought their computer systems without much planning, it was a huge market.

Douglas did not list Digital as one of the original companies invited to bid on the program, which included IBM, Hewlett-Packard, Andersen Consulting, Computer Sciences Corporation, and Electronic Data Systems. Digital won its spot when a few of its people, including Ulf Fagerquist, a very senior and experienced executive, participated in Douglas's six-week MD-12 brainstorming session in summer 1990.

During that session, Digital positioned itself as understanding the *process* of product development. The building of the MD-12, with its complex partner/investor arrangement—each major supplier would invest its portion of the plane, including the engines, the wings, and the fuselage—was less an engineering and manufacturing issue than it was a process one. Digital's central message to Douglas was simple: "Integrate

process and product,” which Digital held to through the down-select process and its final bid.

Why did Digital make the final bid round, when it didn't even qualify for the first round? It sponsored a key customer event. In mid-March 1991, Digital facilitated and hosted a three-day meeting for the senior Douglas MD-12 executives in Digital's Irvine facilities. Under preparation for months, and delayed several times, the MD-12 general managers' meeting finally took place just as Douglas named a new MD-12 program manager. The meeting included his boss, the vice president charged with new product development. In this ideal, though intense, session, the importance of attention to process demonstrated its power in the team's development. Our role at this event and in the resulting MD-12 project was that of process consultants.

Three-Day Plane

The executive conference room was packed. There were 10 general managers from Douglas and six people from Digital, along with some laptops, an electronic whiteboard, a poster maker, and numerous dignitaries floating in and out.

With more than 200 years of plane-building experience in the room, the group devoted its first day to establishing purpose. They agreed on a mission statement, strategies, key concepts, and common assumptions. Here, preparation was critical. For several months prior, a Digital management consultant worked these elements in interviews with the Douglas managers and their staffs. The two weeks before the meeting were particularly intense, and the group experienced considerable success in this part of the process.

During the next day and a half, the group sketched out two plans, one for the following four months and the other for the subsequent five years. They defined phases, listed tasks, roughed out the logic, and estimated times, some in detail. The Digital team captured all this information in real time, both with traditional notes, flipcharts, and the electronic whiteboard, as well as directly into word processing on laptops and into other computer modeling tools. The software tools not

only recorded the data, but processed it, too, generating several simultaneous views, including a schedule.

Because of the fast turnaround time, the group had its first view of the data within hours. It was able to revise its assumptions, enabling participants to see the effects of their changes. In 36 hours, they completed three iterations—run-throughs—of the short- and long-term MD-12 plans. By the end of the third day, the group began to make key decisions, as certain things become obvious even at the coarse level of detail.

This meeting reinforced Digital's message about the importance of process. While demonstrating its capabilities, it also obtained invaluable insight into the program. Significant personal relationships strengthened among people in the two companies, while Douglas benefited from a genuine service.

Six weeks later, Douglas selected Digital as one of two finalists. The other was EDS.

Three-Week Bid

Douglas formed technical evaluation teams to review the proposals. It assigned an official liaison person to the Digital team, whom Digital in turn invited to its team planning meetings. Douglas provided security badges and made offices available to all members of the Digital team; Digital then shifted its base of operations from Irvine to Long Beach. The aircraft company assured access to its people so that Digital could obtain the information it needed to propose solutions and make its bid. It sponsored tours of the MD-11 production facilities, its flagship plane. EDS enjoyed the same privileges.

At Digital, a handful of people suddenly found themselves riding atop a very big project, a systems integration bid two orders of magnitude larger than the average business in the area. When the game was over, it had become the "billion-dollar bid."

One day during the project, an MD-12 team member said, seemingly out of the blue, "158." His partner laughed. We were all standing in the Irvine hallway as a Digital employee from the United Kingdom walked by. "158?" we asked.

They interrupted each other to explain that they'd been keeping track of the number of people involved, and the British fellow who just walked by was the 158th person to be associated with the MD-12 project.

In a few weeks, the Digital team grew from an ad hoc, mostly part-time group of fewer than 10 to a funded, functioning program of 50, with again that many active at any one time, drawing on and reporting to several hundred more.

To plan its work and get up to speed, Digital used the same process it employed with Douglas. The company held a series of three planning meetings over the next several weeks. In these meetings, the Digital team designed the organization that would guide it for the next four months until proposal delivery at the end of August. We called these meetings Work Process Design sessions.

The first iteration of the Digital team's own process was the raucous two-day event at the beginning of May. By the second session, the group had grown to 30 or so, people with much of the experience and life-cycle diversity (e.g., engineering, manufacturing, and product support) required to develop a comprehensive proposal. The packed conference room looked much like the MD-12 general managers' meeting held just across the hall eight weeks earlier.

Over the next two days, the group clarified its purpose, defined its goals, and formed Goal Teams. Materials developed in the first session seeded these tasks, which sped things up. With attention paid to leaving enough time for "bio breaks," meals, and schmoozing, each goal team brainstormed its lists of tasks, then reconvened with the other goal teams to knit together the overall logic. In the large group, people identified who would own each task, defined cross-functional relationships, and estimated how long each task would take.

With the same simple set of tools used in the March Douglas meeting, the team captured, displayed, revised, and redisplayed its planning data quickly enough to iterate it twice. People left with a 30-page handout of their joint work, including a directory of participants, a schedule, and a deployment chart of processes, milestones, and deliverables.

While the team accomplished a great deal in a short time, it was still in its very early shakeout period. Clearly, the group needed more time to complete sufficient planning, and, of course, politics and power problems

erupted. Some gaps opened up, and the team realized it needed to involve other people. In the next few days, the team re-formed and headed east for one more two-day planning meeting the following week.

For the third meeting, each team member received a personalized MD-12 Program Handbook, containing basic information, key documents, the work process design, and results to date, with their names printed on the cover and the spine. Directories, task lists, models, schedules, and the like all had their places in the three-ring binder, which was designed to accommodate updates of more-current material.

With some new blood and a chance to absorb the experience of the previous week, the team ran through the process again. The goal teams, which now had formal status in the group, broke out tasks by specific deliverables, scheduled key meetings, and defined where they would have to make major decisions. They worked on the task logic, resolving vague and overcomplicated areas. People reviewed their commitments, including the cross-functional ones. They estimated resources and generated rough budgets. The meeting far exceeded most people's expectations, and Digital's MD-12 team was launched.

Three-Month Plane

During the third session, an ad hoc group formed—including people from several goal teams—to look at the whole life cycle of the MD-12 plane-building process. Digital had won bid status on its process promise. Now the task was to produce a plausible high-level process view of the plane as a whole. Digital would tie its technology solutions to the work described in that view.

A self-initiated team pulled together the available information and began the process of synthesizing an initial picture of the MD-12 life cycle. Three weeks later, Digital invited key Douglas general managers and their staffs to a presentation of its initial findings.

It was the ribbon cutting for Digital's "MD-12 Process Room"—the first of several process rooms at both Douglas and Digital. The odd-shaped room (a skewed trapezoid, widening from 12 to 15 feet along its 20-foot length) contained graphics of the vision, theory, and method of Digital's approach. Information covered the walls, gleaned from the March MD-12

executive meeting, from formal briefings, and from responses to recent information requests. The first draft of the MD-12 Work Process Framework occupied the “power spot” on the wall: It displayed the phases of the plane along one axis and the functions along the other.

The MD-12 Process Room opening was a success, the most important measure being Douglas’s instant willingness to cooperate with Digital to flesh out the framework and to develop multiple process views.

Within hours, Digital hosted the first of 10 meetings over the next two months with various cross-functional mixtures of Douglas staff. New information replaced obsolete information, blanks got filled in, concepts jelled, and new graphics captured the shifts. All this information showed up on the walls of the Process Room.

Within a week, the MD-12 Process Room moved to a Douglas building at Long Beach. We took over a conference room in the program’s executive suite with a window overlooking the runway where MD-11s are running their test flights. In this magical setting, we were able to bring the vision of the MD-12 alive and explode it onto the walls of the process room to keep the five-year 750,000-task program within the mental grasp of the teams of people that meet in the room.

This technologically enabled but physical process room sparked a vision of virtual team rooms online. Today, the technical capability to do this is virtually commonplace. It forms the emotional heart of the virtual room described in Chapter 11, “Navigate.”

The End

As the picture of the MD-12 process stabilized, the Digital team tested its various solutions against the long-term view of the work required. In numerous technical meetings with Douglas organizations and experts, Digital’s view gradually shifted from gathering requirements to demonstrating increasingly better solutions. By the time Digital submitted its proposal at the end of August, it tied all technology solutions to the required work according to the plane’s life-cycle framework.

This story doesn’t so much conclude as it does sputter out. Digital was the clear winner of the technical evaluation of the plan produced by the

bid team, but the executives could not put together a winning business deal. EDS got the business, but the MD-12 was never built. EDS did, however, subsequently garner several billion dollars in long-term McDonnell Douglas contracts in the few years before Boeing consumed the whole company.

Digital, too, eventually sputtered out. Ken Olsen, who founded the company 35 years earlier, was gone within a year. Compaq eventually bought Digital, and the diaspora of its remarkable assemblage of talent accelerated.

Five Phases of Flight

Taking a trip is a journey, a story that can be told in five chapters.

The Flight

You are going to Washington, D.C., next week. You make reservations, set up meetings, and otherwise prepare in the midst of other activities.

A few hours before the flight, you begin a new phase of this journey. Between being home and being airborne lie a number of hurdles: packing; traffic to the airport; an unexpectedly full parking garage; the momentary panic when you think you've forgotten your tickets; lines at the reservations counter, lines at the security gate, and lines at the boarding gate, where you discover your flight is delayed. An hour later than you expected, you strap yourself in and the plane taxis out to the runway. In one breathtaking instant, the takeoff phase is over and you are in flight.

The flight itself is most of the journey. It's where you do the real work of getting from here to there. In-flight information comes from the crew in the cockpit, where they monitor sensors and adjust controls. The crew adapts to such variables as weather, traffic, and malfunctions by making changes during the flight, with the ultimate objective of a safe landing, ideally at the scheduled destination.

"In preparation for landing, please make sure your seat belts are securely fastened and your seat backs and tray tables are in their fully upright position." The flight attendant signals the start of the next phase:

landing. Landing and takeoff are the most stressful and dangerous events within the flight process. Hitting the ground almost always jars.

The arrival at the airport presents another set of obstacles—getting to a clear gate, opening the doors, deplaning, collecting your baggage if you checked it, and finding a car to take you to your end point.

With the flight complete, you arrive at your destination, a new status quo established. Thinking ahead (and remembering the morning's delay), you decide to confirm your flight home and inquire about times for that trip to the islands you have been thinking about. You are at the beginning of the next journey even as you arrive.

The Five Phases

The five phases of flight are metaphors for the five generic phases of any team's development, including a virtual one.

<i>Beginning</i>	Start-up	■ Preparation
	Launch	■ Takeoff
<i>Middle</i>	Perform	■ Flight
	Test	■ Landing
<i>End</i>	Deliver	■ Arrival

There are two periods of predictable turbulence: *takeoff*, the launch moment for teams, and *landing*, the test period for the team's work. Virtual teams also experience these predictable periods of turbulence in their development. Knowing about them in advance allows time for preparation so that they can be used to your advantage.

"It's just like skiing," Jeff, once a competitive downhill skier, analogizes. "If you check out the course ahead of time, you know where the bumps are, which means you can get momentum from them rather than being thrown off course by them. "Racers anticipate and pre-jump the bumps, gaining momentum from the bump's back side rather than being thrown for a loop by flying off the front."

Launch follows a sometimes lengthy start-up period. It also usually involves a relatively short but intense period of activities that produces a plan and defines leadership. Perform is when activity accelerates, where

tasks are undertaken and results accumulate. But growth is always limited, and deadlines always loom. Work must be tested, brought in for a sometimes dangerous “landing,” delivered to customers, and rolled out to users. A new status quo comes with the achievement of a goal that the next cycle of change will challenge.

Little journeys are contained within bigger journeys that are part of greater journeys, or vision quests. Start-up to delivery may happen over a matter of days, or the process may take years to unfold.

- *Start-up*: Long or short, in the initial period people assess and gather information. Exceptions accumulate as people speak out and ideas are tested.
- *Launch*: At some point, things jell—or they don’t.
- *Perform*: If only we could live here permanently. People engage their energy and take huge strides in accomplishing real work as the overall effort achieves its objectives. There are problems and challenges, to be sure, but problem solving is the modus operandi.
- *Test*: Risks converge here. Success may blind us, and we may exceed the carrying capacity of our environment. The innovation undergoes strenuous testing before acceptance. Forces of resistance mount their final assault.
- *Deliver*: The process passes a final milestone. Here, the process may end, stabilize at a new status quo, or go into another cycle.

Life Cycle

A team is first and foremost a process: It has a beginning, a middle, and almost always an end. No team springs to life full-blown, and none lives forever. Words such as *conception*, *gestation*, *birth*, *childhood*, *adolescence*, *adulthood*, *midlife crisis*, and *old age* all apply to team life. Powerful results accrue when any team, virtual or not, consciously works its way through a life-cycle process.

Virtual teams are living systems, not machines. Everything about them is organic: They are made up of people with interdependent roles and a web of relationships aligned through shared purpose. As *living*

systems, they are not biological organisms but rather social organisms, which have both a pulse and a life cycle.

A team's life cycle has its own rhythm, oscillating between coming together and going apart. This tempo obtains through the long-term patterns and peak moments of key gatherings, the overall life cycle, and the hour-by-hour churns of a team's daily life.

The proper metaphor—living system or machine—is critical to the understanding of virtual teams. It is hard enough to get face-to-face teams to “happen,” to jell over time. It is doubly hard for virtual teams.

Teams grow. They take time to develop—and virtual teams tend to take even longer. Ironically, they don't really have the time.

Forming and Storming

Most organizational researchers and authors acknowledge and underscore this *growing* small-group truth: Team life is a process. Popular and academic studies alike agree on the general outlines of the basic team life cycle. Many people use Tuckman's 1960's model (or a variation) of the stages of small-group development.¹

- Forming
- Storming
- Norming
- Performing
- Adjourning (usually omitted from the list)

This resilient model retains its freshness because it accords with experience. Countless teams use it as a guide.

Growth Curves

The Tuckman model agrees with a powerful general systems concept. It's a social application of a growth model that applies to everything from

astronomy to biology to marketing. The S curve (known as the *logistic growth curve* in mathematics) is so common that Ludwig von Bertalanffy, the father of general systems theory, offers it as original proof that certain mathematical principles and patterns hold across diverse sciences.²

Consciously or unconsciously, virtually all successful teams follow this universal cycle of life.

When applied to a team, the S curve gives rise to some interesting ripples. Tuckman's model points to stress points, an important, overlooked feature of the life cycle, times of natural turbulence and potential conflict. By anticipating the likely stress points, a new, still-forming team gains a powerful advantage. Team members can use these natural points of commotion to give their process the energetic lift it needs—or they can be thrown off balance by conflicts that seem to come out of nowhere. While not all conflict is predictable, some of it is.

The Stressed S

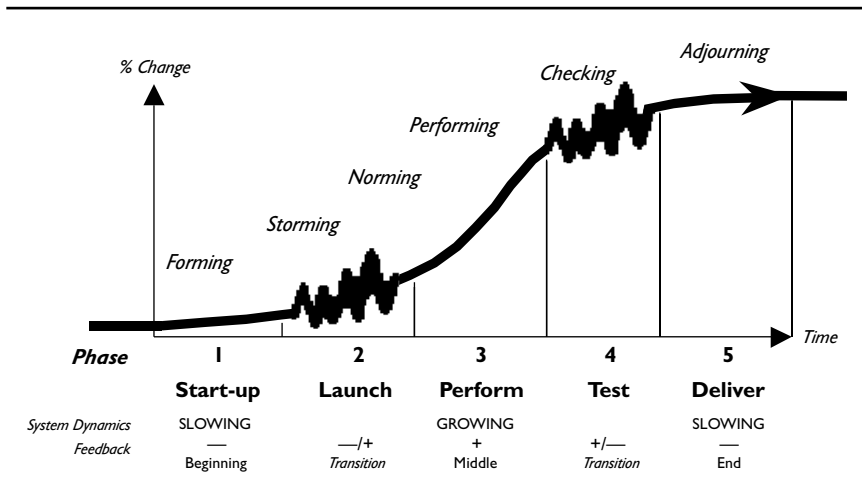
The “Stressed S” is a generic process model (Figure 6.2) that we label in the flight metaphor: start-up, launch, perform, test, and deliver phases.³ There are two major points in a team life cycle where stress is predictable—near the team's beginning and not long before its end.

In Chapter 10, “Launch,” we show how to use this model and provide support tools.

Virtual teams must be especially conscious of their dynamics. Behavioral clues are spread out not only in space but also usually over longer time frames than they are with comparable colocated teams. It's easy enough to see when someone checks out of a face-to-face meeting, but how do you know if the person on your con call is checking e-mail (having used her mute button on her headset so that the tapping of her keys is not audible? This gets very personal for us).

Virtual teams need to design for this supercharged eventuality. Things go wrong all the time; projects are usually more difficult than you antic-

Figure 6.2 “Stressed S” Team Process



ipate. Completion is usually a beat-the-clock adventure. Smart virtual teams develop methods that anticipate the eccentricities of the life cycle and plan for stress.

Using the systems-thinking lens of feedback, it is apparent why these stress periods happen. Peter Senge, who brings systems dynamics and organizational learning to the center of contemporary management thinking,⁴ describes two natural, complementary feedback mechanisms:

- *Slowing* is the dampening, stabilizing, conserving tendency that keeps change in check (negative feedback).
- *Growing* is the building-on-itself accumulating tendency that expands change (positive feedback).⁵

Slowing and growing mean going from one level of functioning to another. We must disrupt stability for change to occur. Then things can stabilize anew.

- *Phase 1: Start-up (slowing)*. Feedback dampens and prevails. The idea for the team and its initial formation struggle against natural forces of resistance. The team's initiators generate interest, gather information, and explore ideas. It may take an excruciatingly long time to get going.

ciatingly long time for the fuzzy beginning to take off. No one may even clearly recall when it happens—or the collective “aha” may be breathtakingly brief. Either way, change of any kind struggles against the status quo.

- *Phase 2: Launch (transition)*. As a critical mass of people with the same purpose comes together, the storm begins to howl. Before the team is really ready to perform, it must sharpen its vague purpose, establish leadership, make plans, find resources, obtain commitments, and acknowledge norms. This is the first transition. Poised between the slowing of phase 1 and the growing of phase 3, launch is the decisive phase. During this period, the team encodes its unique life-cycle code, punctuated with future moments of success and failure. Many virtual teams require a spark of creativity, a group “aha” that cements a core belief. This is where the group feels itself click and people begin to refer to themselves as “us.” Some teams never get out of this phase. There are no guarantees here. It always takes painfully longer than anyone thinks that it will, and for virtual teams it often takes even longer still.
- *Phase 3: Perform (growing)*. Most teams would much prefer to start right here. Growth is positive, accumulating, and exciting. Here the team does the bulk of its work. Results swiftly accrue and the team makes progress toward its goals, always satisfying. People meet and overcome obstacles. At its best, life is good and seemingly will go on forever. But growth cannot go on indefinitely without countervailing slowing actions that check and reshape it.
- *Phase 4: Test (transition)*. Challenge time. Risks converge here. Success may blind us, and we may exceed the carrying capacity of our environment. The innovation undergoes strenuous testing before acceptance. Forces of resistance mount their final assault. The team must review results, finalize features, and limit resources. Meanwhile, time is running out and customers are waiting. All too often, this late-in-the-game second transition, from growing to slowing, is quite painful. Some teams end right here. Early participatory planning (e.g., customer involvement, regular reviews with stakeholders, and interim milestones) can turn this chapter into a triumph.

- *Phase 5: Deliver (slowing)*: Delivery is the endgame, when the team adjourns. The process passes a final milestone. Here the process may end, stabilize at a new status quo, or go into another cycle. The team delivers results, provides support, wraps up details, and in the best practices, ceremonializes its endings. Slowing is dominant here, dampening feedback as the team seeks to stabilize at a new level. It may be the end of one lifetime and the beginning of another, and its duration may be brief or long.

Together and Apart

Teams are dynamic. They manage tensions of stability and growth while moving forward. That same root dynamism lives in each of us, the conflicting pulls of being both “me” and “we.” In team life, this plays out in significant ways, as patterns of coming together (aggregating into the “we”) and going apart (dispersing to be “me”).

We still can hear the echoes of the earliest groups in human history in organizations today. While archaeologists cannot excavate social organization in the same way that they can unearth shards of bone, they can infer a lot about it. By matching artifacts with direct observation of foraging societies that survive today, such as the !Kung of the Kalahari Desert in Botswana, we have a reasonable facsimile of the organizing process of early teams.

The same pulse that dominates team life today was there at the beginning. In the ancient life of nomads, groups of families came together and then dispersed on an annual cycle. Foragers followed the rhythm of the seasons dictated by their sources of food. Even today, !Kung households move to the same beat that literally “goes with the flow.” Access to water moves the !Kung through seasonal cycles, causing groups of families to diverge and converge. The !Kung beat holds for the way most people work—they come together and then disperse. People work alone and then join up in a group. We do what we do best independently and then work with others to expand our capabilities. The basic social rhythm of human beings has not really changed in 2 million years.

The !Kung’s major camp gatherings are like off-sites. These are special times and places for convening teams to literally “pull things together,” to

resolve conflicts, and to make decisions. They also are times of intense social interaction. Some managers regard the community-building aspects of such meetings as so important that they insist on them regardless of tight deadlines and budgets. As we inaugurate the age of virtual teams, such meetings become all the more important. Most people we talk to continue to stress the importance of face-to-face interaction to solidify virtual teams.

Face-to-face time is increasingly precious, a scarce resource in limited, costly supply.

When the !Kung families come together, they suddenly find themselves living in a very different environment. Population greatly increases; numerous channels of interaction come into sight. Camps are alive with feasts and dancing, partying and ceremonies. Suddenly there are many hands to make light work. People hunt together and build common storage facilities, share resources and information, trade goods, and exchange tools. Perhaps most important, the camps are incubators for new families, where people make matches and find mates.

Camps of 25 and supercamps of 100 to 200 serve broad human needs for people to associate with one another. Multifamily camps arise from exchanges, interdependent relations, and repaid reciprocity. The same phenomenon occurs in business when multiple functions and teams come together. This provokes an ancient and natural tension between the family team and larger social organization. Even so, the cooperative act of sharing across organizational kin lines is critical. Without this necessary step, organizations cannot develop. They remain social isolates. As social psychology has found, isolates have poor health, are unhappy, and die sooner.⁷

Cooperate and Concentrate

The “together/apart” rhythm vibrates deep in all sorts of human groups. People congregate, then separate, not only over seasons but in the course of a day as well. Think about your day with some of your time spent alone

and some time spent with others. Time-lapse videos in Steelcase-sponsored research show a remarkable pulse to team life.⁸ Colocated teams of people come together for a time, then separate to do individual work—a together/apart fluctuation that replays many times over the course of the day.

Virtual teams have a harder time getting started and holding together than colocated teams. Thus, they need to be much more intentional about creating face-to-face meetings that nourish the natural rhythms of team life.

Activities that people undertake together and continue apart spark life. Establishing the life pulse is not hocus-pocus. It lives in how we choose to start things, whom we invite to participate, what agendas we create and plans we make, which tasks we implement, when we reach milestones, and how we bring closure.

“I believe that you clearly expedite [team processes] by spending more time on the front end and getting consensus,” says former Eastman Chemical Company CEO Earnest Deavenport. “You shorten the implementation cycle as opposed to the opposite when differences and resistance come out in implementation.”⁹

The moral for virtual teams who want to design their together/apart pulse is simple—and widely held by experienced team leaders and experts alike:

Invest in beginnings.

You will recoup time spent in the first two phases many times over in later phases. Mistakes, mistrust, unexpressed viewpoints, and unresolved conflicts all too easily introduce themselves and become part of operating norms. Lack of clarity around goals, tasks, and leadership hobbles the team in the performance phase. Failure to establish criteria and

measures for results ensures a rocky ride during the inevitable testing phase regardless of whether the team is colocated or virtual.

Anticipation is the recommended prescription.

Real Time and Virtual Time

Coming together is a major challenge for virtual teams. For millions of years this has meant, of course, face-to-face. In the world of virtual work, togetherness means something broader—at-the-same-time (synchronous) events.

Most of the virtual teams that we've interviewed use telephone conference calls to provide some means of synchronous meeting, and many rely on videoconferences as well. Usually such same-time events include pods of people in different locales. A regular weekly meeting of one Ernst & Young International CIO team is a videoconference, tying together four people in New York and another five in London.

The people at Buckman Labs have found, as have many other companies, that a very active online conversation can be fast-paced enough to seem almost real time. Buckman's early chat facilities allowed people who had never met (and might never meet) to have on-screen conversations where they talked about their families and hobbies. The major advantage of these sessions was that they quickly built a modicum of trust and usually caused affection to develop among the participants as they glimpsed one another's private lives.

We recently sat in (virtually, via conference call from Massachusetts) on a Pfizer team meeting with people on videoconference in Groton, Connecticut, Sandwich, England, and New York City, with everyone clicking along through their virtual team room on the web. Such meetings are taking place around the world, in different combinations, stretching everyone's ability to comprehend the technology and the experience.

While the range of synchronous options is growing rapidly, as is the bandwidth required to carry rich real-time interactions, a new channel

has been added to the human repertoire: non-real-time, or persisting *asynchronous*, communications. Threaded discussions, online conversations that resemble verbal exchanges, are the most common example. Portals, intranets, and extranets localize all the communication media into continuous digital campgrounds. These “virtual water coolers”¹⁰—reminiscent of the !Kung gathering around Kalahari water holes—offer entirely new options for shaping meaningful aggregation in virtual teams while supporting their dispersion.

Stretching Time

Time is an essential dimension of human organizations, whether virtual teams, enterprises, or nations—and it poses a dilemma. With the blurring of the line between home and work, complaints prevail about lack of time. To see how immersed we are in time as groups, we need to expand our limited view of time as a ticking clock.

Calendar Time

Clock time is, of course, important. This is the physical level of time, the precise slicing of which is emblematic of the Industrial Age, with its foundations in Newtonian mechanics. Calendar time, the daily schedules of minutes and hours that repeat in patterns of weeks, months, and years, tends to dominate our lives.

“There’s never enough time” is directed at the limited hours in the day to do everything we need or want to do. For people working together, dates mark meetings, task deadlines, team milestones, holidays, personal commitments, and the needs of family life.

Agendas and schedules are tools for creating and anticipating our futures. Learning how to create agendas for virtual team events is a vital skill for twenty-first-century leaders. While the agenda maps the minutes and hours of time spent together, the overall schedule ties together days and weeks. Schedules may just include same-time events, or they may expand to all activities, including different-time ones. Which brings us to looking at time as process.

Process Time

The together/apart pulse reflects biological characteristics of time, organic rhythms of human processes that syncopate life. This is time in “chunks” of duration. In working life, these show up as events and tasks, process components.

This is not time marching on. Rather it represents the results of human choice and design—why, when, and how we’ll meet; why, when, and how we’ll divide and do the work. In practical terms, this is “project time,” and its signature display is the *Gantt chart*, typically a bar chart of tasks showing start and finish dates along an axis of calendar time.

For all but the simplest teams, project management is a critical and often overlooked ingredient for successful distributed work. Colocated teams can quickly share ideas, correct misunderstandings, and work through problems. Virtual teams need to be more explicit in their planning and their plans. Clarifying goals, tracking tasks, and accounting for results all are part of elaborating process time in a manner visible to all members of the team. The team embeds this detail in a larger context.

Phase Time

Processes have beginnings, middles, and ends, repeating cycles of change. For human groups, change and growth are stories in larger stories. All groups within groups within groups are on journeys within journeys within journeys. In the big picture, this is evolutionary time.

Cycles are made up of phases and represent time on a larger scale, the really big chunks of lived time. We have phases of our lives, from childhood to wisdom. Our organizations go through phases of development and change as well, so team dramas are often within the context of larger organizational dramas. And we are all immersed in the really large-scale drama of change in our global civilization, each grand age another phase of human existence at the leading tip of the planet’s evolution.

It is notoriously difficult to see the phases we’re living through in the moment, particularly since we are prone to see work move along faster than it actually does. Hindsight is the wonderful educator on the impact

of phases. Recognizing phases and changes between them is often a key contribution of an outside observer (facilitator, consultant).

The tool to use to manage cycles is high-level life-cycle planning. Put your virtual team or network into a development context. Beginning with the end in mind, as Stephen Covey suggests, imagine the *feeling* of a successful process as it moves along through its early struggles, jelling turbulence, and daily progress to final test and delivery by a product development team. Design to the phases with as much anticipation as you can muster; then ride the inevitable waves of change as you live them.

And what is it that pulls/pushes groups of people through time? It is *shared purpose*.