

Managing Virtual Teams

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The Nature of Virtual Teams

Teams aren't what they used to be.

The nature of teams has changed significantly because of changes in organizations and the nature of the work they do. Organizations have become more distributed across geography and across industries. Relationships between people inside an organization and those previously considered outside (customers, suppliers, managers of collaborating organizations, other stakeholders) are becoming more important. Organizations have discovered the value of collaborative work. There is a new emphasis on knowledge management - harvesting the learning of the experience of members of the organization so that it is available to the whole organization.

All these changes in organizations have changed how teams are formed and how they operate. Teams have changed:

<u>From</u>	<u>To</u>
fixed team membership	shifting team membership
all team members drawn from within the organization	team members can include people from outside the organization (clients, collaborators)
team members are dedicated 100% to the team	most people are members of multiple teams
team members are co-located organizationally and geographically	team members are distributed organizationally and geographically
teams have a fixed starting and ending point	teams form and reform continuously
teams are managed by a single manager	teams have multiple reporting relationships with different parts of the organization at different times

Although the technology that supports these new teams gets most of the attention when we talk about virtual teams, it's really the changes in the nature of teams - not their use of technology - that creates new challenges for team managers and members. Most "virtual" teams operate in multiple modes including having face-to-face meetings when possible. Managing a virtual team means managing the whole spectrum of communication strategies and project management techniques as well as human and social processes in ways that support the team.

Managers of small and large organizations have known the importance of facilitation for successful team process, but few people have really grappled with the issues of trying to manage teams that are connected by distance in space and time. With increasing relevance of distributed communications systems (Internet, Intranets, groupware) in a diversity of working groups' everyday lives, innovators in the field will need to integrate these virtual practices into their current team building strategies as well as learn how to continually improve virtual group process.

There are several different kinds of virtual teams:

Executive teams are made up of managers who are on the team because of their position in the organization. These teams are usually semi-permanent teams with responsibility for specific divisions or functions in the organization.

Project teams are created around a specific task. Members of the team are selected based on their role and expertise in relation to that task. These teams are created for the life of the project.

Community of practice teams support people who are working on common tasks or in the same professional field and who can benefit from sharing experience. Membership on these teams is voluntary. These teams don't usually have specific deliverables but instead are focused on learning.

While there are some obvious problems and disadvantages of distributed teams, these teams also provide some advantages such as:

- developing and spreading better practices faster
- connecting "islands of knowledge" into self-organizing, knowledge sharing networks of professional communities
- fostering cross-functional and cross-divisional collaboration
- increasing ability to initiate and contribute to projects across organizational boundaries

Some of the things that need to happen in order for organizations to make effective use of virtual teams include:

- processes for team management and development have to be designed, defined, piloted, tested, refined
- team managers have to be trained in new team management strategies
- team members have to be trained in new ways of working
- the culture of the organization has to be reshaped to support new structures and processes
- organizational structures have to be modified to reflect new team dynamics
- rewards systems have to be updated to reflect new team structures
- new information technology (IT) systems have to be built to support teams
- new management, measurement and control systems have to be designed

"The real basic structure of the workplace is the relationship. Each relationship is itself part of a larger network of relationships. These relationships can be measured along all kinds of dimensions - from political to professional expertise. The fact is that work gets done through these relationships." - Michael Schrage, No More Teams

In some ways, virtual teams are like the canary in the mine that detects life-threatening problems before anyone else realizes they are in danger. The issues raised for virtual team managers and members about managing people and projects at a distance are really the issues which need to be raised about all teamwork including; How do you achieve the right balance of top-down and self-organization? Between individual and collaborative work? Between manager-driven and team-driven work definition and assignment?

New technology requires us to rethink these dynamics because we don't have the option to use familiar approaches. It gives us an opening to change the way we manage the people and work process in general. The critical part of the question, "How can we manage teams operating at a distance?" is really "How do we effectively support the collaborative work of teams? Managing virtual teams is not about taking our old

management techniques and transposing them for delivery using new media. Rather, it's about expanding our available tools to create new dynamics aligned with the best thinking about supporting collaborative work.

A New Management Mind Set

There are some critical aspects of a virtual team manager's mindset that must shift in order to be effective in contemporary organizations (based on paper which came out of a joint inquiry between Metasystems Design Group and Catalyst Consulting Team which resulted in a paper (in press) "Boundaryless Facilitation")

From

Face-to-face is the best environment for interaction and anything else is a compromise.

Collaboration is what happens when teams interact at a fixed time and space.

Being people-oriented is incompatible with using technology.

When the communication process breaks down, blame the technology.

Learning to manage virtual teams is about learning how to use the technology.

To

Different kinds of environments can support high quality interaction. What matters is how you use them.

Collaboration happens in an ongoing, boundaryless way.

Using technology in a people-oriented way is possible and desirable.

When the communication process breaks down, evaluate our management and interaction strategies, not just the technical tool.

Learning to manage virtual teams is about understanding more about teams and the collaboration process

A New Management Style

Managing a virtual team meeting is not unlike managing a face-to-face team meeting: fruitful experiences don't happen by chance. There has been a lot of excitement about the potential of online networks to provide new environments for teams, communities of practice, and learning. But virtual meeting experiences can be frustrating and disappointing when interaction with others in the group results in information overload, topic drift, or conversations that are just not all that valuable.

When a face-to-face meeting doesn't "work" we tend to look at our meeting design and our role as facilitator for insights about why things didn't go the way we had hoped. When using groupware and other technologies, we tend to blame the technology. Instead, we need to extend our level of consciousness about group dynamics to include understanding of what happens when people interact using new media.

Different media raise different sets of questions for managers. The important thing is to be sure that you are asking all the same questions you would ask yourself when thinking about the dynamics of any work team (from presentation with Amy Eunice at the annual Organization Development Conference, Scottsdale, AZ, 1997).

Media	Questions for Team Managers
Computer-supported face-to-face meetings	How does the ability to contribute anonymous input affect the team? How can you continue to test whether "consensus" as defined by computer processing of input is valid?
Audio conferencing	How can you help participants have a sense of who is "present?" How can you sense when people have something to say so you can make sure that everyone has a chance to be heard?
"War" room (note, some people are	How can you support an engaging conversation about the materials among

trying to make up a better name for these like "discovery" room)	people who don't access them at the same time? How do you know when it's time to make a decision and when there is closure about it?
Electronic mail	What norms need to be established for things like; response time, whether or not e-mail can be forwarded to others? What norms are important about who gets copied on e-mail messages and whether or not these are blind copies? How does the style of e-mail messages influence how people feel about the team?
Asynchronous web-conferencing	How do you deal with conflict when everyone is participating at different times? What's the virtual equivalent of eye contact? What metaphors will help you help participants create the mental map they need to build a culture that will support the team process?
Document sharing (Intranets)	How can you balance the need to access and process large amounts of information with the goal of developing relationships and affective qualities like trust?

Working with virtual teams requires thinking about the same key things you think about when facilitating any team process but you need to extend your thinking about them to accommodate to the new environment.

Purpose

Researchers agree that an explicit purpose is the most critical factor in determining the success of a virtual team. Whether you are meeting face-to-face or using some other media to connect, you can use familiar facilitation strategies to develop a shared understanding and commitment to the team's purpose. What may be different is the strategy for how the team will maintain alignment around the purpose over time when they are no longer able to meet together. Lacking face-to-face meetings, a virtual team may need more frequent and more explicit check-ins about their purpose. On the up side, the technology environment may provide some advantages because it provides multiple ways to remind team members about purpose (as well as goals, tasks, timings) as part of the daily fabric of their communication.

Roles

Managers need to help virtual teams identify roles in the same way required of all teams. Virtual teams need to define some additional roles related to their communication strategy. They may need technical support, knowledge archivists, and specialists in using different media. For all roles, virtual teams need to spend more time being explicit about mutual expectations for facilitators, managers, and members because the patterns of behavior and dynamics of interaction are unfamiliar and it's easy to fall into misunderstandings and become frustrated with each other.

Culture

Whichever combinations of media you are using to support a virtual team, you need to think through how those media will affect the culture of the team's environment. What metaphors are you using for the environment and the interactions? How will these metaphors cue team members to think about where they are and what they are doing? Keep in mind that you are creating an environment to support relationships, not just to exchange information. How can you help the group create a mental map of the environment so that members develop appropriate expectations? What norms, styles and behaviors would help or hinder the atmosphere you want?

Conversation

Many people associate technology - particularly computer technology - with storing and exchanging data. Although you'll want to take advantage of the knowledge archiving features of new media, it's important to remember that conversation among team members is the most critical thing you need to support. Facilitators can contribute a lot by modeling ways of using different media conversationally. Assess the team's interactions often and you'll see considerable variation from day to day. At the end of each week, ask yourself about the pace and the scope of the interactions. Is the communication still interesting and engaging, or has it become stale?

Feedback

Since using technology as a primary means to communicate will be new to most team members, participants need to spend more time than usual talking about the quality of their communication. The facilitator can provide some feedback but it's even better if participants develop a norm of providing feedback to each other about communication style, quantity, frequency, clarity, etc. Facilitators can help team members access more of their own feelings and reactions to messages in different media.

Pace

In asynchronous environments, pace is an important dimension to facilitate. Different team members may access the virtual environment more or less frequently. This is what we mean by the term "rolling present." Generally, people consider material current if it has been entered since they last logged on. If you have several members who sign on four times a day, they may make it difficult for most group members to engage with the virtual team: it will all go by too fast. You may need to do some things to slow down the pace.

Entry and Re-Entry

One of the benefits of virtual teams is that you can bring in new members from anywhere in the organization as required by the project. But the problem of the rolling present is particularly critical for new members and for members who have been away for a period of time. Although new members can stimulate a virtual team, they may have problems figuring out how to enter a fast-moving discussion. The facilitator needs to create strategies that make it easy for people to enter and re-enter the team in mid-stream, find out what's going on and feel welcomed and integrated into the team as a whole.

Weaving

Weaving is a networking term that refers to the process of summarizing and synthesizing multiple responses in a virtual group. The weaving item or response tells people where they've been, where they are, and where they might want to go next. It can identify issues people agree upon or issues that still bring up many questions or require more information. This is similar to the kind of thing facilitators do face-to-face except that the ideas may have to be pulled from multiple different sources in multiple different media and it may be even more critical in virtual groups because members may find it hard to keep track of what's going on.

Participation

In a face-to-face group, managers watch body language and facial expression and lots of other signals to develop a sense of what's going on. Participants in virtual teams convey this same information in different ways. It's important to find ways to base your sense of what's happening on data. It's amazing how often your impressions of what's happening can be off base because we're not used to reading the cues people give out via new media.

Flow

There is no right answer to what should be happening in a virtual group - there may be times when you are more or less active. The key is to use the information about what's happening to learn, so that you can be a more purposeful facilitator. Facilitation is paying attention to what is happening in your group, as distinct from what you wanted or expected would happen. It is not unlike facilitating any group: if participants aren't participating as much as you'd hoped, don't admonish them (or blame the technology). Instead, you want to detect where members are now and work with that energy to move in the direction you need to go. Energy dynamics are greatly influenced by the nature of the media you're using so pay special attention to how interaction feels in different media.

Does this sound familiar? The fact is, managing a virtual team requires all the finesse and skill of managing a meeting or project. When you get online, remember everything you've ever known about managing and facilitating group process. Just ask yourself: How can we move these virtual chairs into a circle so everyone feels involved?

Some of the key ideas to keep in mind to make sure a virtual team works effectively include:

- teamwork is fundamentally social
- knowledge is integrated in the life of teams and needs to be made explicit
- it's important to create ways for team members to experience membership
- knowledge depends on engagement in practice, people gain knowledge from observation and participation
- engagement is inseparable from empowerment
- "failure" to perform is often the result of exclusion from the process

Strategies for Supporting Virtual Teams

Virtual teams form and **share knowledge on the basis of information pull from individual members, not a centralized push**. Knowledge based strategies must not be centered around collecting and disseminating information but rather on creating a mechanism for practitioners to reach out and communicate to other practitioners.

The goal is to find ways that support the **transformation of individuals' personal knowledge into organizational knowledge**. That goal requires designing environments where all the individuals feel comfortable (and have incentives) to share what they know. It's important that this activity not feel like a burdensome "overhead" task, which is why doing it in the process of what feels like informal conversation works well.

In order to have productive conversations among members of virtual teams, you need to **create some kind of common cognitive ground for the group**. Even teams from the same organization can have a hard time developing conversations deep enough to be significant without some kind of specific context as a beginning frame. Contexts can be created by guest speakers, training courses, requests for input to a specific project/question, special events.

Chris Argyris and Don Schone describe organizational learning as **questioning and rebuilding existing perspectives, interpretation frameworks and decision premises**. Effective managers of virtual teams can catalyze discussions around questions, challenge members to question perspectives, and continue to push the discussion deeper. The nature of the manager role in this context would be that of a facilitator.

Managers of virtual teams can support their teams by:

- recognizing them and their importance
- encouraging members to explore questions that matter including questions about how they are working together
- supporting the creation of some kind of shared space (the feeling that there is an infrastructure where people are working together)
- facilitating the coordination of the technology, work processes, and the formal organization
- recognizing reflection as action and as legitimate work (getting the infrastructure of the organization to support the learning process)
- supporting activities which make the informal network visible

Technology for Virtual Teams

Different communication technologies can be used to support different purposes and participants. Many organizations are using their corporate Intranet to support communication within each virtual team. It's also important to manage the communication among the teams as well as communication between the organization and other stakeholders like customers and suppliers. Creating an integrated communication strategy that addresses all these dimensions is important.

There are no rules for what an Intranet must include, but most Intranets employ a suite of applications including:

- **Web pages** to provide members of the organization access to documents that can be searched, and that may include text, graphics, and multi-media;
- **Web conferences** to provide places for interactive discussion;
- **E-mail** (both internal and, if desired, connected to the public Internet);
- **Directories** of people and offices.

The terms "virtual conference", "virtual group", and "online group" (there really is no agreed upon terminology) refer to many technologies. They may be real-time activities, like video teleconferencing or audio conferencing, where people are in different places participating at the same time; or, they may enable participants to join in from different places at different times.

<p>Same place (co-located) Same time (synchronous) Face-to-face meetings Computer-supported meetings</p>	<p>Different place (distributed) Same time (synchronous) Audio (telephone) conferencing Video conferencing</p>
<p>Same place (co-located) Different time (asynchronous), Library (resource center) "War" room</p>	<p>Different place (distributed) Different time (asynchronous), Voice mail Electronic mail Computer conferencing Groupware (Intranets)</p>

Another way to think about the array of communication technologies available to a group is to look at whether the focus is on information or relationships and whether the target of the communication is intact private teams or organization-wide:

	Information	Relationships
Small Work Groups "private"	<ul style="list-style-type: none"> • A web-based shared meeting calendar helps team members schedule meetings • An e-mail list allows members of change project teams to check facts quickly by seeking input from other team members so they can move on to the next step in their project 	<ul style="list-style-type: none"> • A set of web-based computer conferences serve as a virtual workspace for a change team over a period of weeks or months • An audio teleconference links members of a work team in real time so that they can come to an agreement around a tricky decision that needs to be made immediately • A desktop video conference allows a team member to discuss alternative versions of new organization charts with remote team members
Large Organization Wide Purposes "public"	<ul style="list-style-type: none"> • A web site which includes project updates and organization-wide personnel directories provides information about who is working on different aspects of the change initiative • A Video-teleconference "downlink" to multiple sites allows top management to send an important message to everyone in the system simultaneously • E-mail list for announcements • Large "auditorium style" meetings open to everyone allow project teams to make status presentations 	<ul style="list-style-type: none"> • An organization-wide electronic bulletin board allows anyone to post a question about how changes are being implemented and hear from others in the organization about what's going from their point of view • Facilitated "all hands" meetings provide a way for large numbers to provide input and choose to join change teams • An electronic suggestion-box on a web page provides a way for anyone in the organization to make comments and provide ideas (could be anonymous)

Although the information-focused general applications are probably the easiest to get up quickly and reap benefits in the short term, the relationship-focused virtual team applications have the potential for the highest leverage to create significant change in the organization.

Groupware is the term given to applications software that is designed to support virtual teams. Too often, it's introduced to organizations kind of as a solution looking for a problem.

DON'T:

- Don't try to introduce groupware as a strategy to re-engineer your organization
- Don't expect to open the box and roll it out - it's not plug and play
- Don't start by choosing a particular type of technology and then trying to find a problem where you can use it
- Don't just put groupware into the organization and expect users to learn it on their own
- Don't mandate the use of groupware and punish people who don't cooperate
- Don't try to use groupware to change the politics of your organization

DO:

- Start by changing the culture, and then use the technology to support the change
- Change the reward system and measure people on their teamwork and sharing of information
- Encourage bottom-up, grassroots efforts
- Make sure the software fits your processes
- Start collaboration with face-to-face meetings when possible
- Use role modeling for spreading groupware
- Use trainee programs for teaching and spreading collaboration skills and groupware use

"Sometimes the best use of technology isn't to enhance a product or make it easier to stay in touch with customers, but simply to make it easier to stay in touch with other people on your own staff." - John Case & Karen Carney, Inc Online, August 2, 1996

Virtual Teams as Building Blocks for Organizational Learning

"The organizations that will truly excel in the future will be the organizations that discover how to tap people's commitment and capacity to learn at ALL levels in an organization." - Peter Senge, *The Fifth Discipline*,

One of the primary reasons leaders set up virtual teams is to facilitate change in their organization. The driver for real organizational change is organizational learning. We have gone beyond talking about the "information age" and have transitioned into and embraced this era as the "knowledge age". Knowledge is considered not only as important as labor, capital, and land as factors in production, but, is actually the most important resource for the new economy. Today's organization interested in tomorrow's success will run on its ability to create and use knowledge, its ability to learn.

The emphasis on learning has two powerful implications for the design of communications environments to support organizational teams that can have a significant impact on the organization:

- **Dialogues, not just data bases**

In the information age, organizations relied on large amounts of explicit knowledge available to them through huge archival databases. Quantifiable facts, formulas, and procedures were, and still are, available to anyone in these organizations. In contrast, today's "knowledge" or learning organizations create environments where experiential knowledge is shared through dialogue and interaction. Communication technologies are needed which support this interaction. Previously tacit knowledge, based on extremely valuable experience, now supplements the quantifiable data, thereby providing the learning organization with a complete management communications and decision-making process.

- **Learning and change are facilitated rather than managed**

For a business or a non-profit institution to become a learning organization, a different environment needs to be created. This environment should stimulate and nurture the complex network of interpersonal relationships and interactions that are a part of an effective management communications and decision-making process. People must be allowed to make choices about whom they need to communicate with without regard to traditional organizational boundaries, distance and time. An Intranet communications infrastructure provides the advantage and flexibility of forming and reforming groups and teams as requirements develop and change. This entire process must be facilitated rather than controlled by providing easy ways for team members to be introduced to each other.

Virtual Strategies for Organizations

In addition to supporting individual virtual teams, new Internet and Intranet technologies can create ways for the whole organization to function as a network of virtual teams.

The city of Santa Monica, California embarked on a major change effort to improve communications between constituents and the city government. As part of this effort, they created a public electronic network to provide information about city programs to its citizens. Each department within the city was responsible for maintaining current information about its programs on-line. This initiative had an unanticipated positive effect internally. As a result, and for the first time, department managers had easy access to information about other city department activities. "I was always frustrated trying to find out how to get an updated version of a particular document from another department," explained the manager of a division within a major city department. "In that sense, I'm a lot like our constituents in that I want a quick and easy way to get my hands on information about how a particular program works or where I need to go to get help. Now, I can sign on to a web page and find what I need instead of having to make multiple phone calls to do the detective work of finding out who has the information I'm trying to get." One of the learnings from this was that the technology provided a way to achieve something that everyone had always wanted to do but never did. They had participated in retreats previously where everyone had made commitments to providing better quality information to other departments. But because this increased the work overhead, it just never became a priority. When the technology made it easy to upload copies of documents and other materials, it reduced the perceived cost enough so that doing it became the norm.

An \$8 billion energy company wanted to do future scenarios with the top 200 officers of the company. They had previously done scenarios with the top fifteen officers who made up a small executive team but the company felt that, to make a real difference, the investigation had to go deeper and involve more teams of more people. It wasn't feasible to convene an all-hands meeting but the organization was in a hurry. They used an electronic environment to support the scenario process in the organization. The 200 participants were given access to an on line in a computer conference that was accessible via the Internet World Wide Web that meant they were able to operate as a very large virtual team. Participants could access this conference at any time from their personal or desktop computer and catch up with the discussion added since they last logged on simply by clicking a button on the company's internal network.

Having this electronic space available at all times has profound implications for the organization. For example, in the case of the energy company, the day before the conference started, when one of the vice presidents met another vice president in the hall the conversation tended to be superficial. He asked, "How's the weather out at your place?" Three weeks later, when the same VP bumped into a Director, he said "Hey, good seeing you. What did you think of that stuff Mary put up on line last night?" Having a virtual conference available all the time changed the nature of conversation almost immediately. As one of the participants put it, "For the first time I know what's in the minds of my colleagues on a day-to-day basis."

Virtual space has a spirit about it of generosity and responsibility. Free and open discussion in the on line conference brings out the generosity and concern of the participants. The group often moves to a deeper sense of value, and a higher sense of purpose. The resulting conversation gets more strategic along a broader, more penetrating agenda.

The web-based conference records all of the information and invites comments from members of the project team. The potential for a more thorough and relevant implementation plan for the future can be achieved by using the web. Additional benefits include "buy-in" and being part of the decision making process thereby making all participants stakeholders in the future -- a key element to an organization's success.

Another example of the use of technology for organization-wide teams is the MHSS2020 project in the U.S. military. When the joint military services set about to redesign health care delivery through the year 2020, it was imperative that the project include a wide range of geographically dispersed individuals. It was also recognized that the project team would require access to resources from research institutions and to the latest news from tele-medicine to new approaches to nursing education.

Reassigning more than 200 people to Washington, D.C. for a one-year project was not feasible. It became readily apparent that the only way to successfully implement this project was via an Intranet.

A three-day face-to-face kickoff meeting was held which included the project team of more than 200 people representing the three services, the Veterans Administration and experts from academia and the private sector. At the meeting's conclusion, each member of the project team returned home and participated in this mission critical project via a private workspace accessible via the Internet.

Participants in the project were assigned to teams focused on different problem elements. In turn, each team had access to a private web-based conference where specifics concerning their issue were discussed; alternative strategies were considered and chosen. In order to provide a vehicle for the individual teams to share ideas about cross-cutting themes, "plenary" web-based conferences were established. All members of the project team had access to the on-line resources of research institutions and breaking news and information via an assortment of services through the Internet.

After the kickoff meeting mentioned above concluded, the project team worked together via the Internet for nine (9) months. The result was a success and the Internet-based project team of more than 200 individuals completed a set of scenarios on health care delivery systems for the twenty first century for top management review.

In the Northern Region of the Animal Plant Health Inspection Service of the US Department of Agriculture, managers from nineteen states served by thirteen area offices use a private web-conference to stay informed on applicable laws, regulations and guidelines (Directives, Memorandums, etc.) Among the advantages they've found to using this technology; There is easy accessibility nationwide, decisions made are more readily accepted, team building is evident even though all participants are widely scattered, frequent meetings and/or teleconferences are no longer needed, more time is freed up for local problems and/or issues, Participatory Quality Management becomes a reality. One of the unanticipated benefits to the agency was a change in the communication patterns among regions where regional teams had previously communicated only with headquarters and teams never communicated with each other across the region.

What's Next?

Virtual teams are fast becoming more the rule than the exception in organizations. It's time to stop thinking of them as a special case and start developing strategies for dealing with the new challenges they create. Virtual teams need the same things all teams need - a clear mission, an explicit statement of roles and responsibilities, communications options which serve its different needs, opportunities to learn and change direction. The job of the manager of a virtual team is to help the team learn how to be a virtual team and, most of all, to create ways to make the working of the virtual team visible to itself. But the most important thing to remember is that managing a virtual team is basically about managing a team.

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