

Making Virtual Distance Work in the Digital Age

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ABSTRACT

By itself, proper software selection cannot resolve the issues created by Virtual Distance. But by understanding the dynamics of Virtual Distance teams, organizations can select the right software to provide highly effective critical support and mitigate the inherent risks.

Working together used to be so easy. Until the 1980s, the corporation was a very homogenous place. Most of the work was conducted by men who, even if they did not know each other personally, understood the rules by which they all operated. These rules were highly standardized, both across the industry and within individual firms. Companies were organized in rigid managerial hierarchies, with clear-cut lines of authority, accountability, and responsibility. People typically worked together in the same building, and important meetings took place face to face.

Thanks to this centralized core, teams played a relatively minor role in getting things done. And information technology as we know it today played virtually no role at all. This corporate model was well-suited to the Industrial Age—vertically integrated, process-oriented, and authoritarian.

But that type of work environment has been transformed. For starters, the new demographics of the Digital Age include women, who have entered the workforce in large and growing numbers. As globalization marches on, the workplace is becoming even more diverse, with increased immigration from both developed and emerging countries.

With employees from all over the world converging in the common ground of the Internet, work has become much more “distributed.” In other words, many people no longer go to work in a traditional office, while many others may not work for a company with a local presence. Project teams—now the predominant corporate model—might include people from any number of cultures and countries, who are separated by thousands of miles and multiple time zones.

As work has become more distributed, the very structure of the corporation has changed. The rigid, hierarchical organizations of the past—and the cautious, process-oriented approach they took to getting things done—have given way. In their place are flatter, more highly networked corporate structures in which responsibility and accountability reach all levels of the enterprise.

Business success in the Digital Age is now much more dependent on the ability of teams to complete projects on time and on budget—and even more often, to do so independently. In addition, these teams often include contractors, partners, and customers, further blurring the edges of what it means to work for a company.

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Business success in the Digital Age is now much more dependent on the ability of teams to complete projects on time and on budget—and even more often, to do so independently.

None of these changes could have taken place without the evolution in information and communications technology of the past 25 years. Much of the work done at corporations today is achieved virtually. And virtual technology means that teams can be formed based not on where members are in time and space but on members' knowledge, expertise, and affiliations.

The increase in corporate productivity and innovation brought about by software is truly amazing. Few workers today can imagine a time when work was conducted without massive enterprise resource planning (ERP) and customer relationship management (CRM) software, their accompanying databases that automate a wide variety of business processes, e-mail, word processors, spreadsheets, and collaboration software, all of which streamline communications and help perform complex analyses.

Nowhere is that more true than when working as a member of the Digital Age teams now common in corporations. Such teams, especially those whose members are located around the world, simply could not function without the

aid of a wide variety of information and communications technology. Yet the advent of such technologies has not been a cure-all for the problems endemic to many virtual teams. Nor has it had an impact on the success or failure of the projects these teams pursue.

The project failure rate across all kinds of industries and functions remains high. In new product development, for example, research conducted on successful new products has shown that it takes 3,000 raw ideas to come up with 125 small projects, nine early developments, four major developments, and then just 1.7 launches to achieve one winner in the marketplace.¹

Just how much does software matter? Can choosing the right software for a particular team and a particular project increase the chances of success? Clearly, application software has increased overall productivity across a wide spectrum of industries and activities. In the Digital Age, however, the relationships between team dynamics, project failure or success, and software selection is not as straightforward as it once was.

Teaming Up

At some point in their careers, everyone has worked on a dysfunctional team. The symptoms are distressingly similar and include:

- An unwillingness to collaborate.
- A lack of connection to the overall mission or to other members of the team.
- Too much time spent managing the team, rather than getting work done.
- Too many team members who “just do not get it” or are simply missing in action.

Such symptoms do not develop solely because teams are now so spread out geographically or working across multiple time zones. Too many teams struggle with a whole variety of issues that can often determine the success or failure of their projects. Some of these issues are relatively straightforward: How many additional projects are employees working on? How large is the team? But some are much more complex: How well do team members know and understand each other? How are the lines of authority structured?

Software works fine when the people using it know how to use it. They understand the conventions of communication and know the people with whom they work well. As the work becomes more diverse and distributed, however, the less likely those comfortable conditions are to apply. People now find themselves conducting business as part of teams that are spread throughout the world. Under such conditions, software can become an impediment to both efficiency and effectiveness—especially when people are not comfortable with the software itself.

Virtual Distance

One way to address these issues is by understanding the concept of Virtual Distance. Virtual Distance is defined as the *perceived distance* between two or more individuals, groups, or organizations that is brought on by the persistent and pervasive use of electronic versus face-to-face communications. The greater the Virtual Distance among the members of a team, the more problems team members will experience. Among them: miscommunication, lack of clearly defined roles, and even personal and cultural conflicts. It does not matter whether team members are widely distributed or collocated; every team is potentially subject to the risks of Virtual Distance.

Think of a friend you have known for a long time but have not seen recently, because she lives far away. When you do speak with her on the phone or read her e-mail, though, it is as if you just saw her yesterday and are simply picking up where you left off. This is an example of low Virtual Distance.

Given just how important teams are to getting work done, two critical questions arise:

- Is it possible to diagnose the symptoms of a dysfunctional team as the first step in trying to alleviate them?
- How should these symptoms affect the software selected, so that teams—and organizations as a whole—work together as beneficially as possible?

Now think of someone you work with, perhaps even someone in the same building, who is just a few cubicles or offices away. You rarely talk to her, and when she needs to talk to you, she sends you an e-mail, rather than walking over to your desk. When you are face to face with this person, you cannot help feeling a bit uncomfortable—after all, most of your communications have taken place through the computer, and you do not know each other at all. This is an example of high Virtual Distance.

Is there a way to accurately describe and measure just what causes distance between people and groups? Research done by VDI, and developed through a rigorous process of surveys and statistical analysis, shows that Virtual Distance consists of 11 factors, any or all of which may be present to varying degrees within a virtual team (see the Sidebar, “The 11 Factors That Comprise the Virtual Distance Index”).

It does not matter whether team members are widely distributed or collocated; every team is potentially subject to the risks of Virtual Distance.

Software works fine when the people using it know how to use it.

Potential effects of high virtual distance:

- Innovative behavior drops
 - The level of trust among team members declines
 - Job satisfaction decreases dramatically
 - Team performance is low
 - Team leaders' effectiveness declines
-

The 11 Factors That Comprise the Virtual Distance Index

Physical Distance Factors

- **Geographic Distance.** The degree to which team members are separated by physical distance.
- **Temporal Distance.** The degree to which team members are separated by time zone differences or work schedule differences.
- **Organizational Distance.** The degree to which members of the team work for the same organization or for multiple organizations.

Operational Distance Factors

- **Team Size.** The number of members the team includes.
- **Face to Face.** The extent to which the team meets face to face versus electronically, especially at critical junctures in the project or through the course of work.
- **Multitasking.** The extent to which members are facing competing demands from multiple projects and have multiple deliverables due at the same time.
- **Technical Skill and Support.** The extent to which members are able to use the technology tools at their disposal, and their access to technical support in using those tools.

Affinity Distance Factors

- **Cultural Distance.** The extent to which team members share cultural values, similarities in communication style, and attitudes toward work.
- **Interdependence Distance.** The extent to which team members feel interdependent on one another for their own success.
- **Relationship Distance.** The extent to which team members have worked together before or know some of the same people socially.
- **Social Distance.** The extent to which each team member's status is derived from his or her hierarchical position in the organization and contribution to the team or the work effort.

These 11 factors, and how they affect the relationships among the members of a particular virtual team and that team's ability to succeed, can be measured and then translated into a Virtual Distance Index. The purpose of the Index is to assess how much Virtual Distance exists between individuals and their teams, between all

team members, or between two teams. Once the degree of distance is known, the Index can help pinpoint the root causes of Virtual Distance within a specific team or between teams. It can also suggest directions for improving organizational performance and innovation.

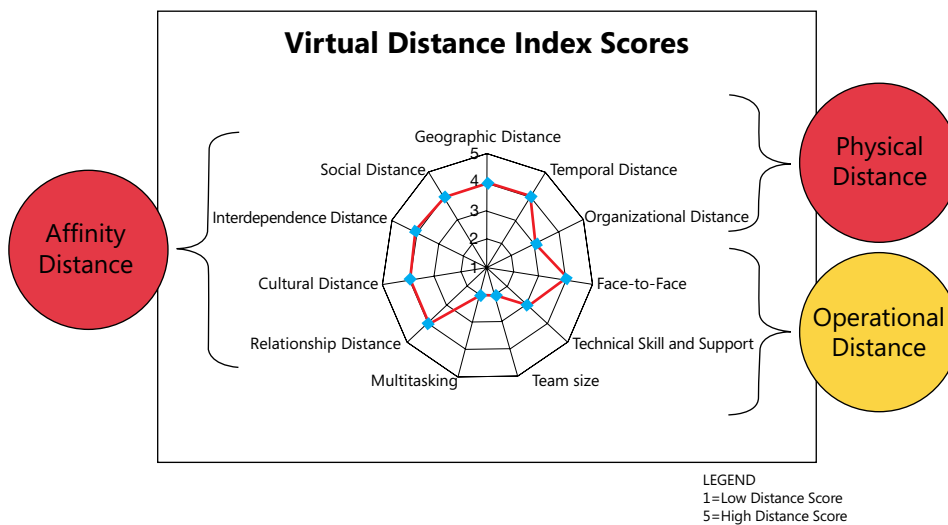
Virtual Distance Index

The first set of factors in the Virtual Distance Index address Physical Distance (Geographic, Temporal, and Organizational distance) and include those influences that academics, researchers, and consultants have typically limited themselves to when assessing how well virtual teams work together. Although these factors can certainly make a difference, VDI's research shows that they are less important than the factors in the other two distance categories—Operational and Affinity. Physical Distance can *influence* Virtual

Distance, but it is neither necessary nor even sufficient to *create* Virtual Distance.

Figure 1 illustrates the inter-relationships between the eleven Operational and Affinity Distance factors. It shows those factors that are most interdependent and that will be at risk when out of equilibrium. As team size increases, for example, it will have a direct impact on the Multiple Tasks and Commitments vector—a large team with each member struggling to juggle multiple commitments increases Virtual Distance.

Figure 1. Inter-Relationships Among Operational and Affinity Distance Factors



Our earlier example of Virtual Distance in the workplace also illustrates the inter-relationships among the Virtual Distance factors. How many of us have experienced the situation where a boss or a colleague works nearby but only communicates via e-mail, thereby creating a high level of discomfort and an awkward relationship. Even though the relationship involves a

high degree of Virtual Distance, it might easily be overlooked, because physical distance is absent. It is quite possible that a team working out of the same office could demonstrate a higher degree of Virtual Distance than a team with members spread out from New York City to Hong Kong, thanks to Operational Distance and Affinity Distance.

One company we studied lost \$3 million as a result of too much Virtual Distance.

Operational Distance factors (team size, face to face, multitasking, and technical skill and support) are typically easier to change than Affinity Distance factors (cultural, interdependence, relationship, and social distance). But changing them for the better is ultimately a short-term solution. Also, problems related to Operational Distance factors must never be mistaken for the more complex factors included in Affinity Distance.

The factors that make up Affinity Distance include several key variables relating to how people work and interact. Although these factors are the hardest to change, successfully doing so can have the biggest impact on a team's performance. This, in turn, can help the team develop a

Why Distance Matters

The Virtual Distance Model incorporates the Physical, Operational and Affinity Distance factors that contribute to the psychological and emotional distance of individuals working virtually. VDI's research on the Virtual Distance Model looked at just how much high Virtual Distance can cost companies. The results are startling. One company we studied lost \$3 million as a result of too much Virtual Distance. Another lost three years in its efforts to develop new products, significantly hampering the company's competitive strategy.

Organizations that demonstrate high Virtual Distance are also at risk to suffer significant blows to their reputations. Interdependence Distance ("the extent to which team members feel interdependent on one another for their own success") is a major risk among financial services organizations, which often find themselves caught in myriad outsourcing relationships that are daisy-chained together. The reputation of one major U.S. bank, for example, suffered, because records were lost as a direct result of Interdependence Distance. The bank now labels this kind of distance Interdependence Risk and factors it into its risk management models in an effort to prevent future losses.

Shared Mental Model (SMM) for working together. An SMM includes a vision of the project's ultimate deliverable, a clear sense of each team member's role and responsibilities, and common language and communication practices.

The purpose of the Operational Distance and Affinity Distance profiles is not to suggest that teams or organizations will necessarily fall into one or the other category. Indeed, a team may have high Virtual Distance thanks to any combination of factors across both categories. The profiles are designed to group together those factors that frequently need different approaches—social and cultural in the one case, and operational in the other.

High Virtual Distance correlates strongly with a number of factors that are critical to the success of teams and their organizations. According to VDI's research, when Virtual Distance was relatively high:

- Innovative behavior within teams dropped by fully 93 percent.
- The level of trust among team members declined by 83 percent.
- Job satisfaction among team members dropped by 80 percent.
- Team performance—were projects completed on time and within budget, and were customers satisfied?—declined by 50 percent.
- The effectiveness of team leaders dropped by 30 percent.

Among the most dramatic effects VDI found was a high correlation between multitasking and innovative behavior. When a team's Virtual Distance was low, the results showed that an increase in multitasking led to some increase in innovative behavior. But when Virtual Distance was high, increased levels of multitasking led to a very significant drop-off in innovative behavior.

It may seem curious at first that increased multitasking would have such a negative impact on innovation. After all, multitasking—especially at companies that use information technology—has been shown to provide a big boost to productivity. Yet we all have our own stories of reaching, and surpassing, the practical limits of multitasking.

Members of teams with low Virtual Distance tend to know each other reasonably well and meet face to face relatively

often. That leads to the easy exchange of tacit knowledge and clearer communications. But a high degree of Virtual Distance means more virtually distant people working on more projects, with more of the communications and the work mediated by technology. When the work reaches a certain critical mass—when “continuous partial attention” becomes the norm—the exchange of information and fruitful discussion degrades to the point where innovation becomes “virtually” impossible.

Distances Great and Small

Perhaps it is fitting to use a NASA project to illustrate the problems Virtual Distance can create. In 2004, the space agency launched a project to design and develop the Orbital Boom Sensor System to inspect a shuttle’s heat-shielding tiles for damage once the craft is in orbit. The complex project had a strict, hard deadline—a spring 2005 launch.

The NASA team in Houston subcontracted the development of a key piece of equipment to a Canadian firm. That the relationship had several major markers of Virtual Distance, including:

- High Physical Distance, including geographic and organizational differences.
- High Operational Distance, including large team size and few face-to-face interactions.
- High Affinity Distance, including high Relationship, Cultural, and Interdependence Distance.

The project’s high Virtual Distance led to lower trust and communication problems. This played out when the Canadian firm fell behind schedule but never let NASA know. The result: a project in crisis.ⁱⁱ

Another example shows how low Virtual Distance can lead to success. The Xootr, a scooter designed for easy urban transport, was developed by a small, geographically diverse team: Karl Ulrich, a professor at the Wharton School of the University of Pennsylvania in Philadelphia; Nathan Ulrich, Karl’s brother and an engineer in New Hampshire; and Jeff Salazar from Lunar Designs in California.

Two key factors compensated for the team’s high physical distance:

- A small team.
- Very low Affiliation Distance, including high Interdependence Distance and low Relationship, Cultural, and Social Distance.

Thanks to the team’s low Virtual Distance, the Xootr went on to win several new product awards. It was also an immediate commercial success.ⁱⁱⁱ

Can Software Help?

Virtual teams have become a defining characteristic of the Digital Age workplace. But such teams would not be possible without, well, the Digital Age. By now, it is difficult to imagine getting work done in the 21st Century without the help of information and communications technology. Walk around the contemporary corporation, peek into people's offices and cubicles, and everyone is staring at their computer screens. It is a rare meeting that does not include PowerPoint presentations and participants tapping away at their Wi-Fi-connected laptops or conversing via teleconferencing hookups or speakerphones.

As we have seen, however, all that technology comes at a price—the price of Virtual Distance. We have all received e-mails, instant messages, text messages, and even voicemails that we have misread, misinterpreted, or simply could not understand, sometimes with dire consequences. What about that member

of your team who works out of the London office? He never calls, preferring instead the occasional brief e-mail. How truly committed to the team's goals is he? And that fancy new collaboration software the IT department recently installed never seems to work the way it was advertised, not to mention that the technical support people simply are not able to help.

Can the concept of Virtual Distance help in the process of choosing software that will ease the process of working together in virtual teams? Yes and no. It cannot help you interpret the e-mail from the outsourcing manager in Bangalore. And it cannot show you how to use the new virtual whiteboard software your team recently purchased. But it can suggest software selection guidelines that depend on the degree of Virtual Distance and the mix of critical factors leading to that distance. The goal: To suggest combinations of software that will work best for the Virtual Distance profile of particular teams.

Software Selection in the Digital Age

Back in the Industrial Age, when companies had centralized offices and software selection was the purview of the IT professionals behind the glass wall, software applications were tied specifically to particular functions and those functions were housed within a bounded physical and virtual space. And, the systems were closed: Manufacturing resource planning (MRP) systems were restricted to the manufacturing department, ERP systems were limited to financial and human resources personnel, forecasting systems were for marketing, and so on.

Under those conditions, software selection criteria were fairly straightforward. The user community was a known quantity; little or no integration was needed within the organization, let alone beyond the organization's boundaries; and users'

input into the kinds of systems needed and the way those systems functioned was neither asked for nor appreciated. As for user acceptance, well, the truth of the matter is that they had little choice—either learn the system or find ways around it and ask for forgiveness later.

That has all changed, however. Organizations now need and expect to see into the MRP systems of their suppliers. Employees expect to access HR benefit information through their company intranets. Forecasting information is needed not only by product managers but by sales, finance and, yes, manufacturing managers. Meanwhile, the customers of all sorts of companies need to access the systems of those companies. It may be transparency into the global supply chain of a distributor, or it could be the ability to simply check bank balances

or access credit-card billing information. In every case, the chosen software must take into account all kinds of outside users.

Digital Age software systems must provide open access to both internal corporate users and those who are outside. In addition, the communications packages (e-mail, instant messaging, Web meeting software, and other virtual communication tools) and productivity tools (presentation software, word processors, spreadsheets, and personal calendar systems) users choose must all interact with the world inside and outside the corporation.

When Virtual Distance Is Low

When a team's Virtual Distance is measurably low, a similar set of characteristics emerge. These include:

- Members typically seeing things through the same mental model.
- Members often knowing one another really well or somewhat well.
- Members communicating easily.
- Members having similar values and attitudes toward how work should get done.
- Members appreciating the contributions of their fellow team members and understanding how things fit together.

In short, they work together to maximize each other's contributions and the success of the team.

Selecting software under such conditions is relatively straightforward, though there are still risks. The first selection option can be based primarily on Task-Technology Fit—on how well the functions and features of the software match up with the tasks at hand. The second option considers whether the software is easy to use and whether team members perceive it as being useful. These issues are known more generally as the Technology Acceptance Model.

This requirement makes the software selection process even more complex.

The main consideration today is users—the people who need to access all the systems available to them. Moreover, because software selection now depends on user-centric characteristics and considerations, user behavior is a critical software selection criterion. That is where measuring Virtual Distance, and using that information to help guide software choices, becomes critical.

Poor software selection will not necessarily increase Virtual Distance. If, however, the chosen software becomes difficult to use, is not well-matched to the tasks at hand, or is not well supported, problems can arise. If the latter occurs, for instance, the Technical Skill and Support vector in the Virtual Distance Index may suddenly increase. This, in turn, will lead to cascading increases in other vectors. The result will be degraded communications and team members who may no longer be able to appreciate and support other members' contributions. In such circumstances, Interdependence Distance—a shared understanding of how individual members will work together to achieve the team's short-term tasks and long-term goals—is also likely to be affected.

The balance that keeps smoothly operating teams working well together can be precarious, and it is very difficult to pinpoint what might throw it off. As such, the dynamics that maintain a team in a state of low Virtual Distance should be actively monitored and managed.

Criteria for selecting software when virtual distance is low:

- Do the functions and features of the software match up with the tasks at hand?
 - Is the software easy to use and do team members perceive it as being useful?
-

When Virtual Distance Is High

Criteria for selecting software when virtual distance is high:

- Is the software the right fit and will the team accept it?
 - Is the software appropriate for use at all skill levels?
 - Will the communications tools and protocols encourage more “live” meetings among team members?
 - Is the software strongly supported by leaders who have been selected and trained to reduce Virtual Distance?
-

Software selection for teams with high Virtual Distance is a much trickier matter. Whether the team leans toward the Operational Distance profile or the Affinity Distance profile, software should be chosen primarily on fit and acceptance. In either case, it is critical to remember that the team is already battling the unseen barriers created by Virtual Distance. If, therefore, a new software application is initially difficult to use or faces a low level of acceptance, the already high levels of Virtual Distance are likely to increase. And that may mean more difficult management problems and even greater damage to performance.

Under such conditions, selecting the right team leader is critical. Leadership skills should include ambassadorial behavior. These skills should also include the ability to bridge communication gaps, to support and illuminate member contributions to the project, to nurture relationships between members, and to help individuals internalize the importance of their work to the entire organization.^{iv} Without the guidance of such leaders, a team’s already high Virtual Distance may increase.

The process of software selection for teams or organizations with high Virtual Distance varies depending on which Virtual Distance profile the team most closely resembles: Affinity Distance or Operational Distance.

Affinity Distance

Recall that teams resembling the Affinity profile show particularly high distance in four areas: Relationship Distance, Interdependence Distance, Social Distance, and Cultural Distance. These factors represent issues that members bring with them *prior* to joining the team. That means

these issues are the most deep-rooted problems in virtual work. And correcting them can have the greatest positive impact on a team’s performance.

For such teams, the software selected should be easy to use for all skill levels. The software for pure work activities can be selected based on fitness to the tasks at hand, but the communications tools and protocols should encourage more “live” meetings among team members. In every case, the software should be strongly supported by leaders selected and trained to reduce Virtual Distance.

Operational Distance

Problems faced by teams more closely resembling the Operational Distance profile—which includes face-to-face, team size, multitasking, and technical skill and support factors—are typically brought on in the course of a specific project or program. In such cases, the issues involved can be manipulated more easily by management. If the team size is too large, managers can reduce the overall team size or break it into sub-teams. If some team members are overburdened by multitasking, managers can redistribute workloads. If there are not enough face-to-face meetings being held at appropriate times, team leaders can try to fix that situation on an as-needed basis.

The most problematic vector here is Technical Skill and Support. If Affinity Distance factors are not contributing significantly to Virtual Distance, software selection can expand to include more complex applications—but only with the knowledge that the team is up to the task of using the technology and that adequate technical support are always available.

Conclusion

In the Digital Age, more work is mediated by technology. Working efficiently now requires the ability to use a wide variety of information and communications technology effectively and seamlessly. Yet the technologies are getting more complex. And all teams struggle to make sure the communications channels and the software they use are as open and helpful as possible.

Proper software selection alone cannot solve the problems created by high Virtual Distance. When Virtual Distance

is fully understood, however, software can be a highly effective tool in mitigating the risks associated with it. It is critical to choose software that best matches the team's tasks and that helps the team work together—given their Physical and Affinity Distance constraints. If the software does not perform as expected, it will only exacerbate any Virtual Distance problems the team may already have. Given the importance of teams working together cohesively in the Digital Age, that is not a risk worth taking.

It is critical to choose software that best matches the team's tasks and that helps the team work together.

Software Considerations

If your team or organization is lucky enough not to have any problems with Virtual Distance, the software you use should be primarily focused on Task-Technology Fit. When Virtual Distance is high, Task-Technology Fit will always be important, but other software characteristics should also be considered. The checklist below can help evaluate software in light of specific Virtual Distance factors.

- **Geographic Distance. Does the software promote presence?** Geographic separation can lead to a lack of “presence”—the perception that the person with whom you are interacting is physically present. A face-to-face meeting provides the highest presence. When team members are geographically distant, software should approximate the sense of a face-to-face interaction as much as possible. Increased presence can also help counter another Virtual Distance factor: a lack of face-to-face interaction.
- **Temporal Distance. Does the software allow smooth, asynchronous communication?** Big differences in time create distance in a number of ways. Meetings are difficult to schedule; e-mails are not returned until the next day; and it is difficult to contact colleagues when an urgent situation arises. Also, we can easily lose track of who is in what time zone. Software should allow users to work together asynchronously, as smoothly as possible, and it should also allow users to know when each team member will be available for meetings, phone calls, and instant messages.
- **Organizational Distance. Does the software allow team members to develop a common identity quickly and easily?** Organizational Distance occurs when team members identify themselves with their own organization or business unit, rather than with the team itself. Software can help by promoting the development of a common identity. Developing team norms and symbols, in addition to creating a common vision, promotes a team identification that can reduce Virtual Distance.
- **Team Size. Does the software allow easy division of large teams into sub-teams?** As team size increases, the feeling of closeness to other team members decreases—as does accountability and a sense of impact. Software should allow the easy and seamless division of teams into sub-teams based on functions or tasks, so that members can think of themselves as part of a smaller team.

The workplace then...

- Rigid managerial hierarchies
- Clear-cut lines of authority, accountability, and responsibility
- Face-to-face interactions
- Minor emphasis on teams
- No information technology

...and now:

- Responsibility and accountability are spread through the organization
 - An increased emphasis on globalization, thanks to technology
 - A more diverse workplace
 - A distributed workforce that can meet anywhere, anytime
 - A strong reliance on the ability of teams to complete projects on time and on budget
-

Software Considerations (continued)

- **Face to Face. Does the software keep track of face-to-face interactions?** In addition to promoting presence, software should allow team leaders and members to easily monitor the number and timing of face-to-face interactions of all team members. Knowing whether and when team members have gotten together can trigger the scheduling of specific events for team members to get together.
- **Multitasking. Does the software minimize multitasking during conferences and meetings?** Multitasking can create distance problems, especially when team members are engaged in tasks that distract attention from the topic at hand. Distant members often miss much of the discussion and lose sight of key issues. Software should allow easy checks and monitoring of all conference attendees to ensure that they are engaged and attentive.
- **Technical Skill and Support. Is the software easy to learn and user-friendly, and does it require little technical support?** Complex software that requires a high degree of expertise can create Virtual Distance. It requires team members to focus on learning and using the software, rather than on attending to the task the software is facilitate. Software should require little technical skill and support, and it should have a shallow learning curve.
- **Interdependence Distance. Does the software promote the perception of interdependence?** Interdependence Distance occurs when individuals are not clear on how their work fits into the project as a whole. Software should allow the team to easily see how their work influences—and is influenced by—the work of other team members, so that individual team members' value to the project is made as clear as possible.
- **Relationship Distance. Does the software facilitate social and personal exchanges?** Relationship Distance can occur when team members do not know one another and have few or no acquaintances in common. Software that promotes off-line conversations among team members—permitting them to have social conversations about their personal lives and interests—can help build relationships even when individuals are geographically separated.
- **Cultural Distance. Does the software facilitate the assessment of cultural differences?** Cultural Distance occurs when people have different values and communication styles stemming from their cultural backgrounds. Software should facilitate the assessment of these different communication styles and value systems, in addition to encouraging discussions and interactions between team members with diverse cultural backgrounds.
- **Social Distance. Does the software help promote and recognize the contributions of each team member?** Social Distance occurs when status is determined by organizational position, rather than by contribution to the efforts of the team. It is reduced when status becomes a function of the contribution and expertise of the members for a given project or task. Software should make clear those individual contributions.

About the Authors

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