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When Teams Fail: The Virtual Distance Challenge

by Edward Baker

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Critical as they are, corporate teams have been a notorious weak link in the effort to get work done on time and within budget. Here's how to measure what's going wrong.

by Edward Baker

Consider what it was like to work in a large corporation prior to, say, 1975. Much of the work, especially knowledge-based tasks such as product development and marketing strategy, was done by men, and white men at that. No matter what industry, by and large these men worked together in geographically centralized locations, where meetings took place face to face, teams played a relatively minor role in getting things done, and information technology as we know it today was nonexistent. The model — vertically integrated, process-oriented, and authoritarian with rigid managerial hierarchies and clear-cut lines of responsibility — came straight out of the industrial age.

Now consider the myriad changes that have transformed the corporate working environment since that time: Women and minorities have joined the workforce in large and growing numbers, and globalization has expanded the demographics of companies even further, turning the upper ranks of multinational corporations into seats of highly diverse managerial talent from developed countries and emerging economies alike. Thanks to the explosion of communications and information technologies, tasks have become much more "distributed"; many people no longer work in a traditional office, or even for a company with a local presence. And work is predominantly done by project teams, which might comprise workers separated by thousands of miles and by five or 10 time zones. Indeed, the very organization of the corporation has changed: It's flat and highly networked, with accountability spread far and wide and to every level.

For the most part, these changes have been for the better. The increased diversity, reach, and technology of the digital-age corporation have produced a flood of fresh thinking and innovation, and the results, in productivity and enhanced value, are well documented. But there's a less publicized downside. Studies have shown that the failure rate of a wide variety of corporate projects is high. For example, a November 2005 KPMG study of information technology implementations found that half of companies worldwide experienced at least one project failure the year before, and that 86 percent of companies lost more than 25 percent of anticipated IT benefits because of projects that had to be shelved or sharply downsized.

There is no shortage of advice for managers seeking to improve team performance and boost business results. Most of it, however well-meaning, depends on subjective, anecdotal evidence, and appeals to any number of fuzzy, unproven concepts. Noticeably missing from this litany of solutions is an objective model that would let managers quantify precisely why their teams

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struggle and the effect those struggles have on critical processes such as innovation, project success, and job satisfaction, and then measure how well efforts to boost team output are progressing.

That's the approach espoused by Karen Sobel Lojeski, an organizational behaviorist and consultant who has pioneered a concept she calls Virtual Distance. Lojeski holds that there is an inevitable "*perceived distance* between individuals, groups, or organizations, brought on by the persistent and pervasive use of communications and information technologies to mediate the work we do." The greater this virtual separation, the more problems the team will experience.

Lojeski developed the notion of Virtual Distance as a Ph.D. candidate at the Stevens Institute of Technology, after conducting a series of surveys and interviews with hundreds of large enterprises to analyze the difficulties companies were having in organizing successful virtual work teams. She was struck by an unexpected finding: The prevailing view, that teams underperform primarily because they are too widely dispersed geographically or among different organizations, was not quite accurate. Poor performance, Lojeski learned, occurred just as frequently among work teams whose offices or cubicles are on the same floor — people who are virtually, but not physically, distant from each other.

Under Lojeski's taxonomy, three sets of factors can contribute to Virtual Distance. The first is Physical Distance —geographical, temporal, and organizational — which has an impact on the success of projects but doesn't on its own create Virtual Distance. The second is Operational Distance, which includes the size of the team, how often it meets face to face, its degree of multitasking on projects for other teams, and how skilled its members are at using the technological tools at their disposal. These operational elements are the easiest to change, but modifying these alone will not necessarily have a significant long-term influence on team performance if other concerns persist in hampering the group effort.

The third — and by far the most important — factor involves what Lojeski calls Affinity Distance: the degree to which team members share cultural values, similarities in communication style, and attitudes toward work; how much team members feel dependent on one another for their own success; how often team members have worked together before or whether they belong to the same social networks; and the degree to which each team member's status derives from his or her position in the organizational hierarchy and/or contribution to the team or the work effort. Reducing the adverse repercussions of these factors is difficult, but it can have the largest impact on a team's output.

By examining how teams and organizations measure up to each of these factors, Lojeski says, it's possible to determine the Virtual Distance among group members. If high, the negative consequences can wreak havoc on a project, according to her research: Innovative behavior dropped 93 percent, trust among team members declined 83 percent, job satisfaction fell 80 percent, team performance dropped 50 percent, and the effectiveness of team leaders was off by 30 percent. Among the most dramatic findings was a strong correlation between high levels of multitasking and a decline in innovation.

An illustration of the negative effects of Virtual Distance can be seen in a National Aeronautics and Space Administration (NASA) project launched in 2003 to develop a technology that could inspect shuttle heat-

shielding tiles for damage once the aircraft was in orbit. The complex project had a hard deadline of Spring 2005. The space agency subcontracted the development of a key piece of equipment to Ontario, Canada–based MDA Robotics. The relationship between NASA and MDA was beset by a high degree of Virtual Distance from the start. The design teams were geographically and organizationally distinct, they had little face-to-face interaction, and they were culturally incompatible. With Virtual Distance clearly elevated, trust and communication were at a premium, a shortfall that manifested itself when the Canadian firm fell behind schedule but failed to notify NASA. The project ultimately succeeded — the resulting boom worked well during the shuttle Discovery's July 2005 flight — but an enormous effort was needed to get it back on track.

In contrast, the recent development of the Xootr, a scooter designed for easy urban transport, was the province of a geographically dispersed team with members in Pennsylvania, New Hampshire, and California. But the team's physical distance was compensated for by several factors, including its small size (there were only three members) and the very low degree of cultural and social distance among the designers (two of the team members were brothers). Lojeski contends that the low Virtual Distance during Xootr's engineering played a big role in the product's smooth launch and its subsequent awards and commercial success.

The ultimate goal, of course, is to reduce Virtual Distance, and improve teams' performance. This requires a management plan that explicitly lays out the group's "virtual gaps" and the measures required to close them. Included in this plan should be a team mission statement, project goals, the roles and responsibilities of every member of the group, a "map" of how team members are connected, and guidelines for open communication. Once that shared model is agreed upon, the team's leaders must reinforce the model through training. Most important, the team's performance, and its degree of Virtual Distance, must be measured regularly. +

Resources

Karen Sobel Lojeski, Richard Reilly, and Peter Dominick, "Multitasking and Innovation in Virtual Teams," 40th Annual Hawaii International Conference on System Sciences, 2007: An academic but compelling paper on the risks of multitasking. http://csdl2.computer.org/comp/proceedings/hicss/2007/2755/00/27550044b.pdf

Graham Oakes, "There's no success like failure...," *Financial Times*, July 11, 2006: A contrarian view of the prevailing notion of high IT project failure rates. www.ft.com/cms/s/ad85e10c-10bf-11db-9a72-0000779e2340,dwp_uuid=4dce8136-4a24-11da-b8b1-0000779e2340.html

IT Cortex Web site: An IT consultancy whose site includes a useful, if somewhat dated, roundup of IT project success surveys. www.it-cortex.com/Stat_Failure_Rate.htm

Virtual Distance International Web site: Karen Sobel Lojeski's consulting firm, with links to a variety of publications on the problems of virtual work. www.virtualdistance.com/

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