Managing Geographically Distributed Teams

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This paper summarizes recent literature on virtual organizations, as well as Tec-Ed's practical experience in managing project teams whose members are in different geographic locations, have different skills and responsibilities, and seldom meet face to face. It reviews how we share corporate culture, gain insight into clients, build trust, and develop the professional synergy that enables efficient cooperation and effective results. It also discusses the challenges facing our centralized staff who support workers in regional offices, from troubleshooting unseen hardware and software to keeping corporate archives up-to-date.

Introduction

Achieving success with geographically distributed teams is all in a day's work for project managers at Tec-Ed, Inc. Tec-Ed is a 15-person consultancy with headquarters in Ann Arbor, Michigan, and regional offices in Rochester, New York, and Palo Alto, California. Our small size, team approach to projects, and nationwide client base mean that we typically collaborate with colleagues and clients who live somewhere else.

As more organizations experiment with telecommuting and "going virtual," they face many of the same problems that Tec-Ed has confronted and coped with over the years. Telephone, fax, and email keep us connected, but high tech can't compensate for high touch.

Why We Depend on Geographically Distributed Teams

Tec-Ed was founded over 30 years ago to prepare computer user documentation, training, and marketing communication for our clients. As the nature of computing and human-computer interaction has changed, our focus has shifted to include user-interface design and usability research as well—in short, all forms of user advocacy.

These diverse if related services require many different skills: technical and marketing writers, developmental and copy editors, graphic and visual designers, interaction designers, and usability specialists. They also require administrative support, such as word processing, desktop publishing, and proofreading. Finally, they require a manager to guide each project team, make sure we complete the deliverables we have defined on the schedule we have proposed, and keep the client in control.

Forming a multifunctional, multidisciplinary team for each project allows us to:

- Bring the experience and creativity of many professionals with specialized skills, not just a single person, to the work.

- Provide variety for our staff.

- Balance staff workloads.

Given our three office locations and clients from New York to California, it also means we form geographically distributed teams on which:

- At least one team member is usually "local" to the client.

- One or more other team members usually work out of other offices.

- Centralized administrative staff in our Ann Arbor headquarters support all team members.

For example, the team for a user-interface design project might include a project manager/editor in Palo Alto, an interaction designer/writer in Ann Arbor, and a visual designer in Rochester. A usability evaluation project team might consist of a project manager/usability specialist from our Ann Arbor office and a usability specialist from our Palo Alto office, both backed by support staff in Ann Arbor. Of course, all teams also include client staff: a project contact and usually one or more subject matter experts as well.

Tec-Ed's approach of using geographically distributed teams has several benefits, particularly for our clients in Silicon Valley:

- Mixing local and nonlocal staff members gives us more flexibility and make us more likely to be available to help a client.

- We gain a competitive advantage by leveraging cost-of-living salary differentials when hiring in different locations.

- We have low turnover, and thus staff continuity, unlike most firms based in Silicon Valley.

- We can take advantage of time zone differences to work on a project for 11 or more hours per day without personal sacrifice.

- We can design usability research that includes geographically balanced results—avoiding the computer bias of Silicon Valley or the automotive industry bias of the Detroit area—with minimal additional cost.

Tec-Ed's experiences with geographically distributed teams echo many of the social and business factors that are making this way of working an option worth considering for many organizations [Gould].

What Makes Geographically Distributed Teams Successful

"Geographically distributed teams" is another, descriptive name for what many people now call "virtual teams." Virtual teams are groups of people who collaborate closely even though they are physically separated, who "work together apart" [Grenier and Metes]. They are often assembled quickly, in response to a particular need—for example, to prepare a proposal or carry out a project—and exist only until the need is met. The team is then disbanded, freeing its members for new assignments and resulting in appealing flexibility for the overall organization.

Many people have probably been members of virtual teams without thinking much about it. Many more people will join virtual teams in the future. In fact, the virtual organization heads a list of trends that Robert Barner believes will dramatically alter the workplace in the new millennium [Barner].

Although Tec-Ed started using virtual teams in the late 1970s, the virtual team for the most part is a relatively new phenomenon that in this decade has become an object of necessity and research. The management consultants and academics who have begun to examine its origins and operations agree on many of the characteristics needed for a successful virtual team:

- A project plan and rigorous project management. Team members have a clear sense of mission and priorities. They know who is responsible for what, and when.

- Ongoing communication. Team members communicate regularly using the phone, email, fax, databases, Web pages, and other electronic methods as appropriate. They must be able to communicate effectively without the benefit of nonverbal cues.

- Free-flowing information. Team members willingly share what they know and what they learn with everyone else. They also acknowledge or ask about what they don't know.

- Trust. Team members respect and understand one another as people, not just professionals.

Traditional organizations often encourage behavior that is exactly the opposite of these characteristics. For example, an employee's value and reward may be tied to the information that only she has; trust is suspect in settings where efficiency and control are linked, and where control means the manager can see who is working and who is not. Thus virtual team members may also need a certain sense of self—self-confidence, self-discipline, self-motivation—to thrive in a situation that their immediate environment may not support.

How We Approach These Success Factors

Planning and Project Management

Careful planning and meticulous project management are part of the corporate culture at Tec-Ed. Because all our projects are fixed-fee or have fee caps, planning and project management are key to our survival.

A detailed proposal, defined with the client, becomes the project plan that gives each team its sense of purpose. The plan summarizes the project background and goals, lists deliverables, identifies client responsibilities, and specifies a working procedure and milestone dates. Internal line-item budgets supplement the plan for Tec-Ed team members.

The project manager makes sure that all team members adhere to and accomplish the plan. In particular, the project manager:

- Is the single point of contact for the client.

- Educates the client about our current agreements and what Tec-Ed can offer when we need to make new ones.

- Stands in for the client in the day-to-day implementation of the project.

- Does whatever he or she can to make other team members' jobs easier.

High on our list of "PM aphorisms," compiled a few years ago as part of in-house training for Tec-Ed project managers: "Read your proposal every week or two."

The nature of our work process and the dual hats most project managers wear—as writer, editor, or usability specialist as well as project manager—naturally keep them in contact with other professionals on the team. Integrating centralized support staff into the team is another matter that challenges project managers and other professional staff in three ways:

- Providing support staff with the big picture of the project. Support staff members tend to be involved in every project, in fits and starts (and at the last minute), usually to help prepare a deliverable. A mechanism that reminds support staff about overall project goals could help give larger meaning to their intermittent tasks.

- Building effective relationships between professionals and support staff. Our support staff have specialized skills in document production, participant recruiting, library and online research, and more. Our professionals may not be aware of—or may forget about—these helping hands. What's more, although we foresee certain roles for support staff at a project's start, we can define new roles as a project evolves.

- Helping support staff maintain archives of project proposals, project management-related correspondence, and project deliverables. Archiving is an important support staff responsibility, but fulfilling it efficiently requires the cooperation of the professionals on the team. We just have to remember to copy the support staff supervisor when we originate documents destined for clients.

Communicating and Sharing Information

Three years ago Tec-Ed developed our PM aphorisms, a top-ten checklist that sums up how we approach project management. First on the list: "Talk with your team members every day."

When a project is active, Tec-Ed team members do "talk" every day using the telephone or email. (We communicate with client team members as needed, to minimize the amount of time they must commit to the project.) We use the phone for day-to-day communication as well as meetings, including client meetings that don't require us to attend in person. Email serves for "unscheduled" communication and distributing files. Team members review the cc: line on email and forward messages as necessary to keep others informed.

We still use fax machines and express shipping services to exchange documents, although less often than before everyone had network connections. However, when developing a printed piece, there's no substitute for holding the original—for example, the mocked-up design or an approval proof. The original conveys sensory information that electronic methods cannot: the size and heft of the piece, the texture of the paper, the gloss of the inks.

What we communicate is even more important than *how* we communicate it. No matter how carefully planned, projects are dynamic, and team members are always learning something new—about our client contacts and their expectations; about the product, development schedules, market, and users; and, in our multi-project environment, about our own shifting commitments.

Several of our PM aphorisms deal with this issue. For example:

- Get team member buy-in for project budgets and schedules . . . .

- Discuss tradeoffs of potential scope changes with at least one other team member . . . before deciding how to proceed.

- Don't commit to changes in scope or schedule without checking with other team members.

- Have someone else read everything you write to a client . . . before you send it.

Peer review and editing of project correspondence and deliverables, on hardcopy or online, is the way we share most information. This practice reinforces that the team shares responsibility for project success. It also enables team members with complementary roles to take over for one another during vacations or other schedule conflicts.

Project managers don't always remember to alert our centralized support staff to changes in project schedules that affect delivery dates. To compensate, the staff supervisor initiates this communication. She interviews professional staff every Friday to learn their support needs for the next week. Then, on "out-the-door" days, she calls them to check the status of deliverables and fill out internal tracking/shipping forms (that team members in our regional offices may not even know exist).

The support staff supervisor also helps track requests for computer support. Her staff often assist nonlocal employees in solving minor hardware or software problems over the phone. Work-stopping problems may need our consulting technical support, reached by phone, pager, or email, who then call the user to find a resolution. An internal form used by all Tec-Ed staff captures other problems, the troubleshooting approach, and the solution.

Building Trust

According to Handy, "Virtuality requires trust to make it work: Technology on its own is not enough." Initial face-to-face meetings and social contacts are best for jump-starting trust, but even a videoconference in which team members see one another [Geber] and email "introductions" that provide some personal background have proven effective [Coutu]. Individual competence and performance build trust as a team matures.

Ideally, Tec-Ed's regional-office employees would start out by working for several weeks in our Ann Arbor headquarters to get to know our processes, procedures, and personalities firsthand. Practically, that rarely happens. Our geographically distributed team members typically do not see each other until some critical project milestone: a kickoff meeting, a design presentation, a draft review, or usability testing sessions. How do we work together successfully when we seldom meet?

In part, we suspend disbelief and adopt new vocabulary. We "meet" our nonlocal colleagues through their résumés, management's introductory memos, and the telephone. We get to know them through—as it turns out, not-so-idle—chit-chat about the weather and our weekend that precedes conversations about business. We decide that they deserve our trust until they prove that they do not.

Then, we take advantage of our periodic visits to build personal as well as professional relationships and develop empathy. Regional-office employees visiting our Ann Arbor headquarters for the first time get a city tour, welcome lunch with all in-town staff, and dinner invitations and companions. Employees visiting our regional offices make time to have a drink or meal with their co-workers there, even if they're not currently on the same team.

These extracurricular activities are fun, but their principal benefits are longer lasting:

- Team members develop synergy and enjoy the spontaneity and intensity of in-person interaction—good practice for later phone-based teamwork.

- Informal telling of personal and company anecdotes fosters a shared history and corporate culture.

- The better we know our team members, the better we can recognize their strengths and weaknesses, accommodate their quirks, and anticipate when they may need support.

The benefits accrue not only to the team but also to Tec-Ed as a whole, creating relationship resources that over time enable us to work better, smarter, and faster [Lipnack and Stamps]. The social contacts contribute to a sense of belonging to a *community* (which Handy suggests replaces the sense of belonging to a *place*, namely, the office) for virtual team members. Tec-Ed has promoted a sense of belonging to our company community in other ways as well: birthday cards hand-picked and gang-signed by headquarters staff; monthly birthday breaks scheduled when possible to coincide with the visit of a regional-office employee to headquarters; one-page faxed *Remote Connections* newsletters; and the *Tec-Eddie Rag*. These activities enrich the relationships of all staff members, regardless of location.

Working from their homes, Tec-Ed's West Coast employees enjoy many of the advantages touted for virtual team members: no time lost or personal wear-and-tear from commuting, reduced expenses and pollution, and greater productivity. But they also face the disadvantage of potential feelings of isolation, which a sense of belonging to a community can combat [Snizek]. (My situation is different: I am co-located with Windsor Street Design Associates, the partner firm that supplies Tec-Ed's graphic design services.)

Handy's insight that technology is only an enabler reminds us that the hard work is the interpersonal work. It further implies that team members may not need the *latest* technology, but simply *appropriate* technology. Although Tec-Ed has experimented with videoconferencing and data conferencing, we have found that telephone, email, and fax—with occasional face-to-face meetings—are the most effective for our needs. It's no coincidence that telephone, email, and face-to-face discussion are powerful personal media that encourage interaction [Lipnack and Stamps].

Leadership

Tec-Ed has always tried to hire experienced, self-motivated, and self-managing individuals who achieve results without constant monitoring. These traits are especially important for virtual team members.

Although the project manager is the nominal leader of the virtual team, Tec-Ed's project managers are egalitarian and team *players* who share project duties and even swap roles when necessary. A well-functioning virtual team doesn't need to be controlled. The team accepts the flexibility to change the established work process to adapt to changing circumstances and meet project goals. The team decides how to respond to deviations from plan, and the project manager keeps Tec-Ed management informed.

Team leaders emerge and recede as project focus shifts from task to task, each of which has its own set of skills and expertise; for example, from designing a usability study to recruiting study participants, or from creating the graphic design direction for a brochure to its copywriting. Authority passes from team member to team member like a baton in a continuous, efficient relay.

Tec-Ed project managers wield not power, but influence. Freed from managing the project in a traditional sense, we work as coach, mentor, substitute, trainer, and guide—whatever is appropriate for the team or a particular team member at the moment. Our technical expertise and experience, our people skills and "power" of persuasion—not our positions—help move the team and project forward.

These Tec-Ed leadership practices—flexible and adaptive work processes, authority through knowledge, and emphasis on influence and negotiation—are among the characteristics that differentiate virtual teams from traditional teams [Grenier and Metes].

How We Manage Geographically Distributed Employees

Overall management of our professional staff falls to a manager at Tec-Ed's headquarters. The task of managing new employees to success in working with virtual teams—and often in working with a virtual manager—differs from managing long-term employees.

Successful management begins with hiring the right people. Our hiring process for all professional staff begins with email communication and telephone interviews. Candidates must be comfortable with and skilled at communicating over the phone before we proceed with an in-person interview. Later, the same trust building that occurs among virtual team members must occur between the manager and the new employee. We budget additional management time to answer the questions that arise about virtual teaming and, when the new employee and the manager are not in the same physical location, about having a virtual manager.

During the trust-building phase, the manager must check and recheck that assignments, feedback, and goals are communicated with precision—and that the employee correctly understands them. For example, suppose the manager gives the employee some positive feedback on Friday, but the employee hears the praise as insincere or ironic. The employee frets all weekend, eroding the stores of trust, before clarifying the comments with the manager on Monday.

Frequent, specific performance feedback is critical to making new employees feel that they're getting appropriate attention to help them succeed at Tec-Ed. It is also difficult to provide when the manager cannot observe important aspects of the employee's performance. Our manager gets creative: he listens to audiotapes of client meetings and watches videotapes of usability tests to see how we're performing in these situations.

Our manager must also be adept at recalling details about us and picking up clues to our mental and physical health. He has to be able to discern over the phone that a nonlocal employee is feeling ill in order to advise "Go home and take care of yourself." He has to remember which nonlocal employee adopted a puppy last weekend so he can ask, when that employee sounds unfocused on Thursday, "Did that puppy keep you awake all night?" and not judge the employee's performance too harshly.

Once new employees are performing capably, the manager's job shifts to higher-level concerns such as motivating employees and gauging their satisfaction—critical activities for helping Tec-Ed retain the people working in our regional offices. Trust, professional respect, and familiarity with our personal styles helps the manager identify growth paths and challenges that are appealing and within reach for individual employees.

Conclusion

Geographically distributed teams—virtual teams—have become a way of life at Tec-Ed. In the early days, we made things up as we went along. We tinkered, experimented, and tried again as we learned to manage our geographically distributed teams. Fortunately, all our employees had worked side by side at some point and knew each other.

As we step back now to look at the way we work, and to compare our processes with those reported in the literature generated by growing interest in virtual teams, it's gratifying to see how what we've learned reflects the experiences of other organizations. The emphasis is on the basics:

- Familiar, established technology—such as telephone, fax, and email—that link team members for ongoing communication and information sharing. (What is familiar, established, and effective will change over time.)

- Project management that stresses constituent care—where our constituency is all team members, not just the client—rather than control.

It's a reminder that in a high-tech world of knowledge-driven work, our people are our most important assets.

Acknowledgments

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