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“Leadership training is a must for new managers, and refreshing the outlook and skills of more experienced professionals is one important way to maintain organizational effectiveness.”

**— Lynne Ellyn,
Guest Editor**

The Role of Leadership Development and Staff Training in a Recovering Global Economy

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Part of Cutter Consortium's mission is to foster debate and dialogue on the business technology issues challenging enterprises today, helping organizations leverage IT for competitive advantage and business success. Cutter's philosophy is that most of the issues that managers face are complex enough to merit examination that goes beyond simple pronouncements. Founded in 1987 as *American Programmer* by Ed Yourdon, *Cutter IT Journal* is one of Cutter's key venues for debate.

The monthly *Cutter IT Journal* and its companion *Cutter IT Advisor* offer a variety of perspectives on the issues you're dealing with today. Armed with opinion, data, and advice, you'll be able to make the best decisions, employ the best practices, and choose the right strategies for your organization.

Unlike academic journals, *Cutter IT Journal* doesn't water down or delay its coverage of timely issues with lengthy peer reviews. Each month, our expert Guest Editor delivers articles by internationally known IT practitioners that include case studies, research findings, and experience-based opinion on the IT topics enterprises face today — not issues you were dealing with six months ago, or those that are so esoteric you might not ever need to learn from others' experiences. No other journal brings together so many cutting-edge thinkers or lets them speak so bluntly.

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by Lynne Ellyn, Guest Editor

Opening Statement

The roller coaster of business cycles appears to be headed up and accelerating. The economy is recovering, companies are beginning to hire, the real estate market is improving, and even new housing starts are up. In the past, the economic undulations of business have been shadowed by a boom-and-bust pattern of corporate investment in training, leadership coaching, and team development programs. In my 30-plus years in IT, there have been numerous cycles of intense investment in training and employee development. During these cycles, corporate-speak riffed on variations of the adage, "People are our most important asset." These people-asset times are characterized by competition for good employees and corporate objectives that focus on growth, new product development, new marketing channels, and innovation. The corporate focus shifts to effectiveness. Usually these boom times are spearheaded by marketing, engineering, or sales — in other words, the corporate entities that actually *create* business, business relationships, and new opportunities.

Inevitably, expansive business cycles are overtaken by cycles of retraction. Retraction cycles are characterized by corporate-speak that says, "Every employee is a liability." During the employee-as-a-liability phase, hiring stops, layoffs start, and any investment in training is focused on continuous improvement, Six Sigma, and the like. The corporate focus is on efficiency. The finance department, at the direction of the CFO, usually leads these retraction cycles. In other words, retraction cycles are usually led by the entities that *report* what the corporate business creators did.

In my experience, the expanding investments in people and the retracting investments in people precede the economic business cycle of boom or bust. In other words, when companies begin to reinvest in people, productivity increases, creativity soars, new products appear, and new customers are engaged. When companies pull back on people investments, sales start to sag, productivity declines, product introductions slow to a trickle, and soon the business falters. The faltering of business is usually obfuscated initially by the drive for efficiency and financial engineering of the books, but the employees reflect the dropping corporate

barometric pressure. Rumors fly, and people begin to hang out at the water cooler to commiserate and speculate about what is going on. High-value employees flee to other companies or industries, and employee morale and corporate profits tumble.

When companies begin to reinvest in people, productivity increases, creativity soars, new products appear, and new customers are engaged.

People in IT are clearly motivated by access to training and skill development programs. Recently, I was talking to a CEO of a small VC-funded software startup. He was seeking additional funding to keep the company moving forward and finishing the product development for an exciting new software product. A top priority for this veteran of several successful startups was getting adequate funding that would allow him to increase spending for training and staff development. His observation from his deep experience in successful product and business creation was that software developers would give it their all tirelessly for months or years if they felt that they were learning, growing, and developing on the job. Training dollars and employee development were sacred ingredients in successful product development. This point of view is strongly backed up by neuroscience research, which reveals that learning is extremely rewarding to the brain. Learning provides a dopamine buzz — a neurochemical reward that is deeply motivating. The highly respected Gallup Employee Engagement survey dedicates two of its 12 questions to this issue of learning and growth. They are:

- **Q6** — Is there someone at work who encourages my development?
- **Q12** — This last year, have I had opportunities at work to learn and grow?

The Gallup survey is only 12 questions long, but it is highly correlated with employee engagement and corporate performance. I find it to be significant that

Gallup devotes one-sixth of its questions to the issue of learning and personal growth. Presumably, we are all seeking the expanding business cycle — we seek the energy, the thrill, and the profitability that comes with expanding business cycles. So if employee learning, training, and development are so critical to expansion, why would anyone cut these programs?

How can an IT department forgo training and ever think of being successful?

IT leadership is often faced with extremely tight budgets, very aggressive delivery targets, and projects that are organized as “death marches.” Oftentimes, the stressed IT leader believes that people cannot spare the time for training. In other cases, the training budget is cut when the organization faces corporate budget cuts. The net effect on employees is to feel increased stress and a sense of being devalued by the corporation. Cutting training for IT is a strange and curious action. Everyone knows that information technology is constantly changing. Users of technology have ever-rising expectations for what technology can and should do for them. Technical complexity is growing. Cyber security threats are increasing in numbers and sophistication. Given all of this, how can an IT department forgo training and ever think of being successful? To be truly effective as the leader in IT, the IT department must have training as a top priority.

UPCOMING TOPICS IN CUTTER IT JOURNAL

JUNE

Scott Ambler

Disciplined Agile Delivery

JULY

Rebecca Herold

Big Data Privacy

AUGUST

Simon Woodworth

Mobile Security Challenges

Given that training must be a priority, the savvy IT leader is thoughtful and deliberate in providing training that is effective and improves the performance of the IT department. Leadership training is a must for new managers, and refreshing the outlook and skills of more experienced professionals is one important way to maintain organizational effectiveness.

In this issue of *Cutter IT Journal*, our contributors provide insight into effective programs for developing leaders and training for the IT department. The first article takes on one of the most difficult challenges faced in IT today — how to create a high-performance team when team members are distributed across the country or the globe and may not even have the opportunity to meet. Most leaders will simply try to muddle along with a virtual team by hyper-specifying the requirements. In this well-reasoned article, Richard Brenner gives us a rich set of recommendations for creating high-performance virtual teams that are durable and can be leveraged by a corporation. I was truly impressed with the recommendations Brenner gives and have little doubt that implementing the training and methods outlined in his article would produce a sustainable productivity advantage in building software on a global basis. My only concern is the probable investment and the need for a durable advantage in software development. Certainly, large software organizations like IBM, Google, SAP, or Microsoft could utilize these training and organizational development approaches and reap the benefits. In small organizations or for single project situations, the investment to create high-performing virtual teams would seem excessive. Certainly, I never worked for a company that would have allowed such a rich investment in training for a single project. Setting aside my concern that the investment required would be too much for most companies, I applaud the thoroughness and insight Brenner provides for creating high-performance virtual teams. Anyone managing virtual teams would be well advised to incorporate his recommendations.

Whether a team is colocated or globally distributed, creating high-performance teams is a competitive advantage and a necessity for success. In our second article, Jason Stradley tells us that high-performance teams do not happen by chance. He provides excellent advice on eliminating chance and ensuring the performance of IT with a well-thought-out training and development approach.

Numerous studies on job satisfaction and stress have named IT as one of the most stressful career choices.

Ronald Woerner and Timothy Sweeney discuss the many constraints and paradoxes that make IT such a challenging job. They show us how leadership can be the answer to overcoming the difficulties faced in IT. Many IT leaders rise from the technical ranks and lack the people skills necessary for effective leadership. In their article, Woerner and Sweeney offer “definitive steps anyone in IT (or any other position for that matter) can take to dramatically improve their effectiveness.”

In our next article, by Cutter Senior Consultant Hillel Glazer, we learn that there is an unexpected source of knowledge and structure that can be applied to create high-performance teams and effective leadership. The source of this model is our much-hated — and much-loved — CMM®. In this case, Glazer is talking about the lesser-known People Capability Maturity Model®, or People CMM. Certainly it would be hard to argue with the view of a mature people organization. The People CMM model should be thought-provoking for all IT leaders and organizations, but Glazer’s philosophy may be a bigger gem of wisdom. The Be-Do-Have model he proposes is a Zen-like approach to leadership and life — almost a tao of leadership. Glazer’s article is worth both a read and serious contemplation.

After you’ve digested the leadership Zen offered in the previous article, you might wish for a more practical and colorful approach to determining the training needs of the organization. The Prism View model offered by our next author, Debabrata Pruseth, is a color-coded analysis that “will help CIOs create a clear picture of the current IT training landscape, define the target desired state, analyze the gaps, and build effective training programs for the organization.” This is just the sort of easy-to-understand-and-communicate model that can be made into posters for the conference room. Every organization has staff members that live for PowerPoints and wall art. Here we have a model and a method that will keep the graphic art group busy and provide a structure that will make training requirements clear and actionable.

Our last article brings a perspective of how leadership training is being done in challenging environments in the Middle East. Developing countries face unique difficulties, and the environment in Egypt is particularly unstable. Sherif Kamel of the American University in Cairo (AUC) offers an encouraging look at how AUC is focusing on leadership education to broaden the entrepreneurial capabilities of students attending its business school. Kamel’s focus on education as an investment in

human capital is applicable to any area of business, but is particularly pertinent to IT.

As the economy continues to recover globally, IT leadership will certainly turn its attention to staff development, leadership development, and training. The articles in this issue provide perspective for leaders trying to be effective with distributed or colocated teams. Our contributors have provided a comprehensive view that includes all aspects of the challenge, from philosophies underlining leadership to practical frameworks that can facilitate common understanding of all team training objectives. There’s no time like now to upgrade your leadership development and staff training programs.

Lynne Ellyn is a Fellow of the Cutter Business Technology Council and a Senior Consultant with Cutter Consortium’s Business Technology Strategy practice. She retired in 2011 as the Senior VP and CIO at DTE Energy, a Detroit-based diversified energy company. During her 32 years in IT, Ms. Ellyn managed organizations with as many as 1,200 employees. She has deep experience with large established corporations, global software teams, and startups.

During her years as a CIO, Ms. Ellyn was consistently recognized as an exceptional business and IT leader. In 2002, Crain’s Detroit Business named her as one of the “100 Most Influential Women Business Leaders” in the metropolitan Detroit area, while the Association for Women in Computing awarded her one of the “Top Michigan Women in Computing” in 2003. In 2004, CORP! named Ms. Ellyn one of Michigan’s “Top Business Women,” while Computerworld named her a “Premier 100 IT Leader” in 2005. In 2007, Baseline named her one of the “Top 100 CIOs” in the country.

Ms. Ellyn worked her way through the IT industry, beginning as a programmer. She has held systems analyst, project leader, knowledge engineer, and systems architect positions. Ms. Ellyn combines a strong hands-on technical background with an equally strong knowledge of all aspects of business. She has successfully held leadership positions in five industries: healthcare, automotive, high-tech, consulting, and energy.

In 2012, Ms. Ellyn completed a postgraduate certificate in the Foundations of NeuroLeadership with Middlesex University in Manchester, UK. After a 32-year career in IT, she now focuses on leadership coaching, team development, IT strategy, public speaking, and consulting for Cutter Consortium. Ms. Ellyn also does equine-facilitated leadership training. (More information about equine-facilitated leadership training can be found at www.pasobility.com.)

Ms. Ellyn is passionate about building high-performance teams, coaching leaders for high performance, and managing complex business requirements. In addition to her postgraduate study in neuroscience and leadership, Ms. Ellyn has a bachelor’s degree from Oakland University and an executive MBA from Michigan State University. She can be reached at lellyn@cutter.com.



Creating High-Performance Virtual Teams: Expanding Our Perspectives on Investing in People

by Richard Brenner

For virtual project teams, visions of high performance often vanish near the middle of the kickoff teleconference. People commonly experience virtual teams as awkward and frustrating. Many attribute the difficulty to the nature of virtual teams, because they are dispersed in space, time, and/or organization.¹ Some teams are also dispersed in language and culture, but high performance can be compromised even when the dispersion is only geographical.

The term “high-performance virtual team” need not be an oxymoron if we change our approach to leading, managing, and supporting virtual teams. The required changes are challenging, because they touch every part of the enterprise, including the way we think about investing in people. But they are achievable.

In this article, I focus on IT virtual project teams, but much of what follows applies to other types of virtual teams, possibly with slight adjustments.

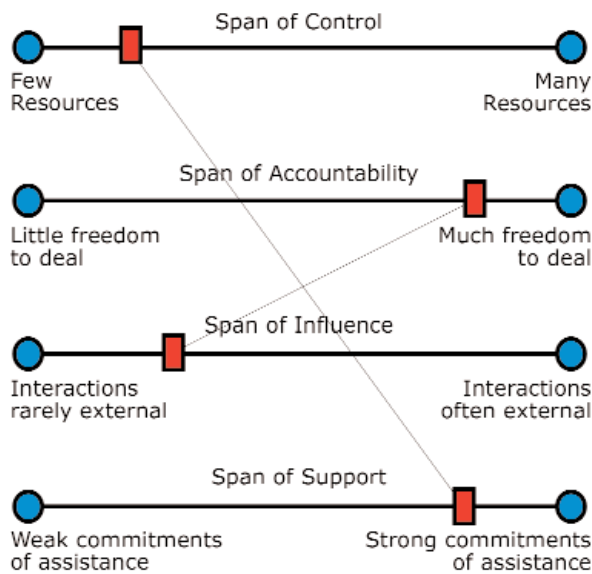


Figure 1 — A span configuration in which resources and need for resources can be in equilibrium, because C+S can equal A+I. (Source: Adapted from Simons.)

THE PROBLEM

Why do virtual teams reach high performance at so much lower rates than conventional teams? Can we address this problem with team training alone? I think not. Team training that yields positive results for conventional teams doesn’t seem to work as well for virtual teams. For example, after team-building workshops, conventional teams do work better together. But for virtual teams, the effect is much less pronounced, and because of travel, the costs are much higher. To save on travel, some have tried distance or remote team building, but results are mixed at best.

The fundamental difficulty is perhaps most easily understood in terms of Harvard Business School professor Robert Simons’ Four Spans model of high performance (see Figure 1).² Although the model is intended to explain the potential performance of an individual, it can be adapted to model team performance. Briefly, Simons’ model adapted to teams would hold that high performance is possible only if the team’s resources match its need for resources. Its resources are determined by its span of control and its span of support. Its need for resources is determined by its span of accountability and its span of influence. For equilibrium, and hence high performance:

$$\begin{aligned} \text{Span of Control} + \text{Span of Support} \\ = \text{Span of Accountability} + \text{Span of Influence} \end{aligned}$$

The span of control defines the range of resources over which the team has decision authority. The span of support defines the level of assistance the team can expect from other units and teams. The span of accountability describes the team’s freedom to make tradeoffs and deals to achieve success. The span of influence describes the breadth of the team’s need to collect information and influence the behavior of other teams and individuals.

In terms of the Four Spans model, the difficulty with virtual teams is that there is a significant gap between the resources they have and the resources they need.

Some conventional teams also face this problem, but the problems of virtual teams are far more vexing for two reasons:

1. Some required resources reside outside the enterprise that employs the team's sponsor, thereby reducing the team's span of accountability and increasing its span of influence.
2. The virtual environment (VE) is far more chaotic than the conventional environment, which reduces the team's span of support.

Since the span of control is typically narrow and the span of influence is wide, the conditions above often eliminate any chance of meeting the team's need for resources. To achieve equilibrium for virtual teams, we must act so as to increase their spans of support and accountability and decrease their spans of control and influence.

The model suggests two strategies for fostering high performance in virtual teams. First, calm the chaos. Second, invest in people, facilities, and processes that lie outside the domain we conventionally regard as the domain of the virtual team.

THE ORGANIZATIONAL BENEFITS OF FOSTERING HIGH-PERFORMANCE VIRTUAL TEAMS

Although high performance in any team is welcome, results must justify the cost of attempts to achieve it. Most organizations know the cost of their attempts to achieve high performance, but determining the advantages of high performance is a subtler problem. We can ignore second-order effects, such as lower turnover, lower rates of burnout, and lower absenteeism, because the first-order effects are so much larger. They are two:

1. **All teams benefit.** Inspection of the recommendations below shows that many of them benefit all teams, virtual or not. Although some of the recommendations require investments that scale with the number of teams deployed, most do not. The larger the organization, the higher the return on investment.
2. **The cost of merely adequate performance is delay.** For projects whose deliverables lead to increased net income, delay is expensive. In most cases, we can compute the cost of a month's delay as a percentage of project costs. If we know the cost of the changes that we expect will foster high performance, we can determine how much sooner delivery must occur to justify that investment. Especially in the case of revenue-enhancement projects, the choice is usually clear: do it.

Thus, if we adopt the recommendations that follow, organizational performance will improve and the cost reductions or revenue enhancements we expect from the team's deliverables will then arrive earlier.

Enterprises that deliver value using virtual teams would do well to consider running a little less lean and a little less mean.

RECOMMENDATIONS FOR FOSTERING THE DEVELOPMENT OF HIGH-PERFORMANCE VIRTUAL TEAMS

Each recommendation is followed by symbols such as -C or +A. They indicate how the recommendation increases or decreases the team's spans of Control (C), Support (S), Accountability (A), or Influence (I).

Reevaluate the Net Benefits of Running Lean and Mean (-C, +S)

Organizations that operate "lean and mean" achieve lower costs, in part, by sharing staff across teams, which leads to an elevated incidence of split assignments. Split assignments do reduce headcount, but the price is a reduced ability to adapt to unexpected changes in project schedules. For example, when teams encounter delays, their scheduled needs for people with split assignments change. Changes like this can then affect the other teams to which these people are assigned, if those teams already had plans in place. This phenomenon degrades the performance of virtual teams more than it does conventional teams because the incidence of unexpected events is relatively elevated in the VE to begin with. The hidden cost of operating lean and mean is thus the suppression of virtual team performance relative to the performance of conventional teams. Enterprises that deliver value using virtual teams would do well to consider running a little less lean and a little less mean.

Adopt Zulu Time as a Standard for Multiple-Time-Zone Teams (+S)

When virtual teams span multiple time zones, confusion about times can cause delays and rescheduling because people misinterpret the schedule. Equinoxes exacerbate the problem, as some sites switch to or from summer time. It is even worse for teams with sites in both hemispheres, because the equinoctial time change can result in two-hour relative time differences. Citing all team times in Coordinated Universal Time (UTC, or Zulu)

addresses this issue. If everyone then tracks time relative to Zulu, the incidence of confusion drops.

Recognize That Virtual Teams Need Generous Travel Budgets (+S,+A)

Effective travel strategy for virtual teams rests on three principles:

- 1. Relationships are the foundation of high performance.** High performance requires forthright exchanges of ideas. Members don't have to like each other, but they must share a desire for collaborative achievement, which requires strong relationships. Those relationships are best formed face-to-face (F2F),³ because members can interact in fully human ways. Email, telephone calls, texting, and video do not suffice.^{4,6}
- 2. Front-end relationship building is most effective.** For interpersonal collisions, like vehicular collisions, prevention is more effective than repair. Building relationships at the outset of an effort is the superior approach.⁷ With no history, and especially no past difficulty, team members can focus on relationship building in their early meetings, rather than relationship repair.
- 3. Travel costs must be considered relative to delivery.** If high-performance teams are more productive, then their contributions to organizational objectives are greater and arrive sooner than would those of lower-performance teams. If travel contributes to performance, then we must evaluate travel costs in terms of early delivery of superior results. Yet we rarely compare the cost of travel to the value of results. Instead, we compare the cost of travel for virtual teams to the cost of travel for conventional teams, or what is worse, we compare it to zero. More sensible comparisons demonstrate the wisdom of generous travel budgets for virtual teams.

Conduct Kickoff Meetings Face-to-Face (+S,-I)

The online disinhibition effect (ODE)^{8,9} is a model that explains why toxic conflict afflicts virtual teams so often. Briefly, because the VE lacks ways of connecting individuals with the consequences of antisocial behavior, it suppresses inhibitions that limit such behavior in the F2F context. Because fostering strong relationships among team members mitigates this problem, an in-person kickoff meeting is perhaps the best means of avoiding ODE. Periodic F2F meetings are necessary for relationship renewal, and they serve to introduce new team members as team composition evolves.

Provide Too Much Videoconference Capability (+S)

Videoconferencing is more than a means of meeting virtually — it also helps limit the risks of ODE. Limited videoconference capability is better than none, but people will actually use it only if availability and bandwidth are ample. Ideally, the capability should be available on demand. For example, if a group is talking by phone and decides to switch to video, they should be able to switch within five minutes. Longer delays risk disrupting the discussion. Unconstrained spontaneity has a high return.

Treat the Team's Communications Substrate as a Project (+S,+A)

The communications substrate for virtual teams is complex, in some cases involving telephone, video, email, text, wiki, the Web, documents, and all software and hardware that support these channels. Maintenance involves capabilities that team members might lack. For most teams, this maintenance activity is an expensive distraction.

Relying on an operations-oriented group or department for maintenance of the communications substrate is not recommended. Serving multiple independent teams inevitably exposes such departments to load bursts resulting from schedule collisions. Treating the communications needs of each team as a full-fledged project — with a project manager, a sponsor, and a risk management plan — is a superior approach, because it facilitates coordination across virtual teams.

Provide Professional Testing Services for Virtual Meeting Communications Platforms (-C,+S)

The communications needs of virtual teams are complex, especially when the firewalls of multiple enterprises are involved. Ensuring both security and trouble-free passage of all needed data streams requires skills and expertise that are likely beyond the capacity — and certainly beyond the charters — of most virtual project teams. To ensure reliable communications, provide testing services as specified in the project plans for each team's communications substrate.

Provide Professional Remote Facilitators (-C,+S)

Facilitation is the art of managing information exchange within groups, typically in synchronous meetings. Remote facilitation is the kind of facilitation required for virtual meetings. As rare a skill set as facilitation is, remote facilitation skills are even rarer. Nevertheless, as is usual with facilitators, effectiveness depends on

maintaining neutrality with respect to content. Remote facilitators ought not be members of the virtual teams themselves.

Provide Professional Translator and Interpreter Services for Multilingual Teams (-C, +S)

Multilingual teams require both document translators and real-time conversation interpreters. For these functions, avoid relying on team members with language skills. Professional translators and interpreters provide both superior results and content objectivity. For critical documents, perform closed-loop translations to verify translation accuracy. For less-than-critical documents, perform random closed-loop translations to monitor translation accuracy.

Provide Round-the-Clock Communications Technology Support for the Virtual Meeting Substrate (+S,-I)

Communications technology support services for multiple-time-zone virtual teams might be needed whenever a team meets, on a standby basis, or whenever the team tests its communications substrate. If the time zone span is wide enough — more than two or three hours — the team probably needs 24-hour communications technology support at all sites, because the team must rotate the inconvenience of its meetings across its respective sites.

Accept That Virtual Leadership Requires a Unique Skill Set (+A)

Effective leadership in the virtual context is distributed and adaptive.¹⁰ It is distributed in the sense that it doesn't necessarily reside solely in the formally defined organizational slots. In virtual teams, even more than in conventional teams, many people must play leadership roles because the team is dispersed. Those who do lead must be willing to circulate and travel, even more than in conventional teams.

Virtual team leaders must also be able to adapt their styles to the needs of people from different organizations and different cultures. In the conventional environment, we can afford to give team members time to resolve issues on their own, because they can easily meet with each other.¹¹ In the VE, opportunities for team member interactions are fewer and less frequent. In virtual teams, empathetic and creative intervention by leaders is often essential to high performance. Special skills and talents are required.¹²

Include People with Technical, Project Management, and Technical Support Expertise on the Contract Negotiation Team (+S,+A)

Surprises encountered during project execution are expensive. Bringing technical, project management, and technical support experts into contract negotiations gives the negotiation team what it needs to produce a contract that is relatively clear of the pitfalls that cause so many problems for virtual project teams. If all counterparties' negotiation teams do likewise, the negotiators can resolve issues such as Microsoft Office version skew well before they can degrade team performance. Even if negotiations can't eliminate some problems, they can at least identify them early enough to accommodate them in the contract.

In virtual teams, even more than in conventional teams, many people must play leadership roles because the team is dispersed.

Ensure That Contracts Include Constraints and Penalties Regarding Staff and Resource Availability (+S,+A,-I)

One problem that plagues virtual teams is sudden loss of access to resources that partner organizations were supposed to contribute. The political power needed to rectify such situations is often lacking in the virtual team. Reassignments, capital freezes, and hiring freezes are examples of these difficulties. To supply the virtual team with the political power it needs, include in contracts constraints and penalties severe enough to ensure availability of critical resources. Naturally, all participating organizations must be subject to these constraints.

Include Contract Provisions Regarding Retrospectives (+S,+A)

An effective retrospective is the key to learning, which is essential to reaching and maintaining high performance. But since retrospectives occur after project deliverables are available, some organizations have difficulty committing time and resources to them. Contract provisions requiring retrospectives, including resource and duration specifications, ensure that retrospectives will occur. Because of the sometimes volatile nature of retrospectives, they are best conducted face-to-face.

HOW TO GET THERE

Some of these changes are dramatic, affecting organizational activities that seem unrelated to virtual team performance. Expertise in effecting broad organizational change is required, implementing first those recommendations that have the most tightly focused organizational impact. Success with those changes can facilitate the more complex changes.

Investing in virtual team performance doesn't guarantee enhanced organizational performance, because many factors affect performance. But electing *not* to invest in virtual team performance will likely limit the organization's success.

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High-Performance Team Building

by Jason L. Stradley

An essential leadership skill for any organization is the ability to build and lead high-performing teams. This is especially critical for small to medium-sized businesses. In those situations, people must work closely together, wear many hats, and work effectively across the organization to get tasks accomplished quickly enough to remain competitive.

In fact, building a high-performance team is one of the most valuable investments that an organization can make. Once established, such an investment can bring huge returns to the organization, not the least of which is retaining those key employees who contribute to achieving business results and ultimately make the organization successful.

A high-performance team doesn't just occur by chance. It requires that team members, team leaders, and managers have the communications skills and resolve to collaborate to achieve a set of team or organizational goals.

Many organizations continue to lose sight of what oftentimes is their most valuable asset: their people. The continual pursuit of shareholder value and the short-term thinking that such a pursuit promotes frequently manifest themselves in the devaluation and discarding of the very assets that are the key to both short- and long-term success.

In this article, I will focus on some of the keys to creating and sustaining high-performance teams in today's fluid and ever-changing business landscape.

FOUNDATIONS OF TEAM EFFECTIVENESS

In order to fully appreciate the capabilities needed to build and lead high-performance teams, it is essential to define the term "team." Here is a simple but effective description from *The Wisdom of Teams*:

A team is a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach for which they hold themselves mutually accountable.¹

The successful and consistent development of high-performance teams depends upon three foundational

competencies (see Figure 1). These competencies form the basic building blocks that team leaders must call upon and execute on a consistent basis in order to achieve a high level of performance. These basic building blocks are:

1. **Vision** — ensuring that the team understands the vision or "end game" of the team, its goals and objectives, and how each member of the team contributes to that vision
2. **Knowledge** — ensuring that the team has adequate support structures and information to achieve the stated goals and objectives and realize the vision
3. **Interaction** — facilitating team interaction to build trust, maximize individual performance, optimize decision making, manage team conflicts, and, above all, gain buy-in from the team members that they are indeed all high performers

CHARACTERISTICS OF HIGH-PERFORMANCE TEAMS

To better understand how excelling in these competencies creates highly effective teams, let's examine these basic building blocks and some of their core characteristics more closely (see Figure 2).

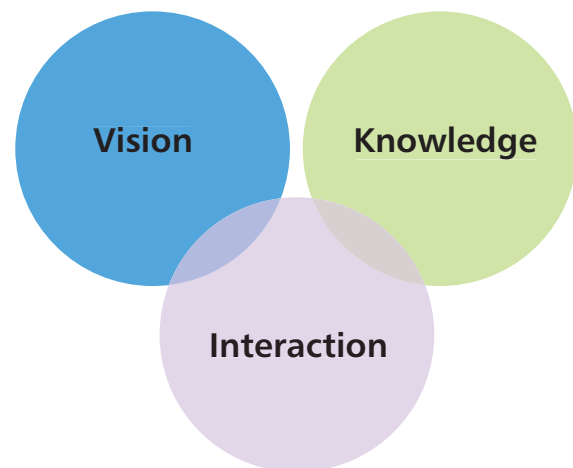


Figure 1 — Foundations of high-performance teams.



Figure 2 — High-performance team characteristics.

A high-performing team understands the grand scheme that gets the team to the end game. In a high-performance team situation, each team member very clearly understands the context of the work to be accomplished by the team. This includes understanding the relevance of the tasks being asked of each team member, how the execution of those tasks will impact the other members of the team, and the contribution of the tasks to the realization of the vision. There are many situations where individuals are asked to work on a task without being made aware of how the completion of that task contributes to the desired end game — successful completion of assignments that contribute to the overall value proposition of the organization.

A second aspect that allows members of high-performance teams to align with each other is effective definition and dissemination of the vision, goals, objectives, and task-level assignments. Each team member must understand their individual value proposition to the team and the expected team outputs that will signify success. Each goal, objective, and task-level activity should have some appropriate metric attached to it that clearly demonstrates team effectiveness and improvement.

Highly effective teams work in a collaborative fashion, as units that recognize and embrace interdependence as a criterion for success. Collaboration and interdependency in a team will stimulate opportunities for improvement and reduce “passing of the buck” or blaming behavior. Without such a sense of interdependency in both rewards and responsibility, blaming behaviors may occur that will quickly grind away at team effectiveness.

Leadership

Without a doubt, one of the critical elements to the success of a high-performance team is leadership. Great leadership creates the atmosphere and establishes the philosophies and values that are favorable to high performance. This is clearly evident in organizations whose managers have a track record of creating effective teams over and over again. Some of the operating characteristics of such leaders include: a systematic and highly organized approach to building high-performance teams, an understanding of what to say (and, equally important, what not to say), and the ability to envision the end game and work backward before sorting out the current realities. Dynamic leaders are able to:

- Clearly and concisely describe the vision of the future state or end game
- Describe a broad-brush framework of actions to achieve that end game
- Use language to instill trust, encourage forward thinking, and create enthusiasm within the team
- Put the right people together to execute against the vision

Processes

High-performance teams leverage efficient and effective processes to achieve their goals and objectives. Any type of successful team has highly effective processes that it relies on to assist in achieving that success. Whether it’s a athletic team making a championship run, a symphony orchestra performing Beethoven’s “Eroica,” or a surgical team performing an open heart surgery, they all have their own set of processes that they practice over and over again until the conduct of those processes is second nature. High-performance teams in business have playbooks as well that might include processes for decision making, solving problems, conducting a meeting, or designing a piece of hardware.

In highly effective teams, each team member clearly understands that he or she has a clear and specific role-based function, expertise, and skills. There are many examples of business settings in which these processes don’t exist or are inadequate for the needs of the business. In contrast, high-performance teams identify, map, and master their key processes. The effectiveness of these processes should be the subject of constant review, evaluation, and improvement as required. The questions “How are we doing?”; “Have we learned

something new?"; and "Can we do better?" form the basis for that review and evaluation activity.

Chemistry

One of the biggest myths in the annals of teams and teamwork is the belief that working and interacting effectively requires team members to be friends. It may seem counterintuitive, but just the opposite may be true. The diversity of skills, knowledge, and experience needed to divide tasks effectively almost prohibits high levels of personal friendship, which is most often based on the common interests and/or beliefs of individuals.

It seems that the more diverse the team complement, the more effective that team can be. A team whose members see the world differently based on their gender, ethnicity, personality, knowledge, experience, and perspective has an unequivocal advantage over a more homogenous group. The greater the diversity among the team, the greater will be the collective intelligence brought to bear on attacking problems, making decisions, and addressing other issues. The team will see a greater continuum of creative solutions so long as team members can channel their differences into synergy as opposed to strife.

Great team chemistry provides the atmosphere needed for greater collaboration and is characterized by acceptance, courtesy, respect, trust, and understanding. Trust is clearly the nonnegotiable component of interdependent relationships. Leadership cannot mandate trust; it can only endeavor to create a climate and opportunities that will aid its development among team members. Interdependence cannot be established among the team until a certain level of trust between all team members is achieved; therefore, where there is a lack of trust, there is a shortfall of collaboration.

Communication

Communication is the means by which collaboration and cooperation transpire. One of the primary motivations of companies that choose to implement a team concept is that team-based organizations are more nimble and respond more quickly to changing conditions. By definition, a team is incapable of moving faster than it communicates. Speedy, accurate, clear, and timely communication is a hallmark of highly effective team performance. High-performance teams become proficient at the art of speaking succinctly; there is little effort wasted through misunderstanding or confusion. The team understands that effective communication is

crucial, and as a result, team members approach communication with great determination.

Ownership

Members of high-performance teams make themselves accountable for the success of the team and are empowered by a sense of ownership of the team's product. In highly effective teams, this sense of ownership is "baked in" from the beginning by virtue of the fact that the team members themselves had a part in creating the solution sets that result in the final product. Through the inclusion of team members in the development of goals and objectives, the sense of ownership is a tangible thing and can make all the difference between a high-performance team and a no-performance team.

The science of developing high-performance teams is for leaders to ensure that all these characteristics are given an opportunity to develop. Given the many variables associated with each team and its surrounding environment, the art of building highly effective teams is knowing how to cultivate these characteristics and in what proportion.

COMMON MISCONCEPTIONS ABOUT TEAMS

There are many misconceptions about high-performance teams. While the list below is certainly not complete, it highlights some of the more prevalent ones.

Misconception #1: All work at all levels within an organization should be team-based.

Reality: It depends. Some tasks are more effectively accomplished with approaches other than a team approach. It is important to understand when to "team up" and when not to.

Misconception #2: Any grouping of individuals is a team.

Reality: There are different types of teams. Successful teams are those that are appropriate for the job at hand and the people assigned to complete the task.

Misconception #3: The act of participating in a team setting reduces all team members to the lowest common denominator and incentivizes mediocrity.

Reality: The reality is quite the opposite. Great teamwork encourages individual differences and allows those who are high performers to be even more productive, creative, and effective. Good teams tend to make all team members better!

Misconception #4: Working as a team makes the work easier.

Reality: Team work is hard but satisfying and makes the work more productive, more effective, and sometimes more fun, given the right people and management support.

Misconception #5: Teams are a threat to the authority in an organization and are not compatible with organizational hierarchies.

Reality: Teams work extremely well within traditional organizational hierarchies and complement those hierarchies.

Misconception #6: Good teams will always make the appropriate decisions.

Reality: Without the appropriate support from senior management and consistent access to relevant information, a team — no matter how strong it is — will be challenged to produce positive results.

Teams and their development are about one thing: results!

WHY SOME TEAMS DON'T WORK

As we have already discussed, forming a team to complete a task or set of tasks doesn't guarantee success. Sometimes teams don't work. There are a variety of reasons why a team may not succeed. Some things that can kill or severely disable a team's effectiveness include:

- **Vision miscommunication.** A team may not perform up to par if a clear vision of the team's purpose is either lacking or has not been effectively communicated to some or all of the team.
- **Poor or unsuitable leadership.** Another cause for poor team performance could be that the leader and/or team members have not had sufficient training in how to work as a team. Without management support and good team leadership, individual team member contributions could be reduced to a lowest common denominator.
- **Skills mismatch.** Individual team members may not have the requisite knowledge or skills to perform the required tasks, or there may be a duplication of skill sets among team members that limits the overall

capabilities of the team and detracts from achieving the desired end game.

- **Inadequate management support.** If team work is not that important to senior management, it might not provide the support and commitment required for the team's success.
- **Misaligned incentives.** When the incentive system within the larger organizational hierarchy pits individual performance against team performance, it may be counterproductive to the team's achieving its goals.
- **Artificial morale.** Team spirit and morale might be built on artificial hyperbole, instead of the actual achievement of team goals. The focus on team work can become so intense that the work and those who will benefit from it (or pay for it) become secondary.
- **Lack of trust.** Without the trust that typically develops through a set of shared goals and the interdependency that is required to achieve them, a team may self-destruct or hinder its ability to achieve those goals.
- **Insufficient self-assessment.** The team may take insufficient opportunities for self-assessment, which results in the team missing signs of trouble until it is too late.

KEY PRINCIPLES OF HIGH-PERFORMANCE TEAMS

Ten key principles that organizations should consider when attempting to implement high-performance teams are:²

1. Teams are not formed; they are built to accomplish a specific mission.
2. Teams and their development are about one thing: results!
3. Team development is a journey, not a stop along the way.
4. There is no quick solution for team effectiveness.
5. The best time for training and developing a team is when they are needed.
6. Development must be a perceived need of the team as a whole.
7. The team's work must be the basis for building the team.

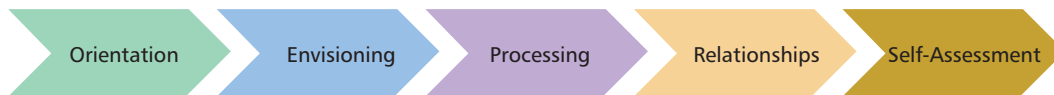


Figure 3 — Critical team development tasks.

8. Willingness and determination come before skill as far as collaboration is concerned.
9. Organizations should spend less time on strategy and more time on team culture.
10. Teams should take the time to celebrate appropriately when milestones are achieved.

MOVING FORWARD

As we've seen, there are definite reasons that some teams achieve the designation of high performance and others miss the mark. It is crucial to understand and execute against the three foundational competencies of vision, knowledge, and interaction in the proportions appropriate to the task at hand.

There are five critical elements on the path to team development, which incorporate the three foundational competencies and lay the groundwork for the development of the characteristics associated with high-performance teams (see Figure 3):

1. **Orientation.** Orient both the team and the individuals that make up the team.
2. **Envisioning.** Define the team vision to ensure clarity of tasks and alignment of all team members to those tasks.
3. **Process building.** Identify and build mission-critical team skills and processes.
4. **Relationships.** Cultivate solid team relationships.
5. **Self-assessment.** Ensure continual team monitoring, measurement, and adjustment of performance based on the achievement of short-term and intermediate-term goals.

Aspiring leaders of high-performance teams need to focus on these areas with the goal of providing support and guidance to instill the concept of team interdependency and product ownership. These will ultimately move the team in the right direction and help it achieve its end game, whatever that end game might be.

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Using Leadership as a Secret Weapon in IT

by Ronald Woerner and Timothy Sweeney

For many organizations, IT is in a rising position of power, especially the CIO. However, many people on the IT team are still stuck down the chain of command fighting an uphill battle to adequately serve their organization. Many are overworked and underappreciated for what they do to keep their organization running. That's where IT leadership is critical to success. In this article, we present concepts to encourage IT professionals to develop as leaders and provide specific steps for improving their leadership capabilities.

This article will take readers to the next level of IT leadership by providing:

- Illustrative ways that IT leaders can enhance their authority and influence without being antagonistic
- Strategies for positively motivating others to create a more effective and efficient IT environment
- Methods for projecting the positive professional image of an IT leader
- New perspectives on coaching, communication, and collaboration that will promote best practices with a high return on investment
- Real-world leadership tips and techniques for strengthening an organization's IT program while meeting business objectives

Regardless of your managerial level, you can use these actionable techniques immediately to positively influence any situation. Leaders are masters of bringing out the best performance in others. Rather than issuing direct instructions or orders, the best leaders indirectly, yet profoundly, enhance the thinking and creativity of the people around them. This should be the ultimate goal of everyone in IT.

IT LEADERSHIP GAP

There is a leadership gap within IT today. It's characterized by IT personnel having responsibility for IT functions within an organization but no authority to make positive change or have a positive influence within their larger organization. IT personnel are often in their own

chain of command away from standard business operations. They're responsible for the installation, configuration, and management of information systems and technologies within the organization but are otherwise detached from day-to-day activities. Many are out of touch with their primary users. They commonly lack an understanding of psychology, sociology, and human relations. IT personnel promoted to management are often introverts who would much rather spend a few hours on a computer than with a group of gregarious people.

There are generally two avenues people take to become a manager in an IT role: up through the IT ranks or through the business side with training in technology. The majority take the former route, starting with a bachelor's degree in computer science or management of information systems (MIS). They are promoted because of their technical knowledge and abilities as well as their tenure with the organization. It's often not due to their ability to lead or manage. Those with a business background tend to better understand what makes people tick and how to motivate them. This article is for those who are somewhat unexpectedly thrust out of their techie comfort zone and into a management role.

Managing Techies

Highly qualified technologists can be a challenging breed. As management guru Jonathan Lewis observes, "When you lead IT, you lead programmers, analysts, database analysts, system and network administrators, and the rest of the cast and crew required to keep a company's systems running. These are very bright people, often narrowly focused, with diverse interests and a high degree of independence. Many are constitutionally incapable of respecting leaders who can't deal with them on their terms."¹ IT analysts frequently have diverse backgrounds yet have a similar trait of introversion with a myopic perspective.

This is consistent with a 2005 study in which researchers Jo Ellen Moore and Mary Sue Love discovered that IT professionals tend to demonstrate

significantly lower organizational citizenship behavior than professionals in non-IT areas.² Moore and Love's study suggests an opportunity to investigate factors that influence an IT professional's emotional and social maturity levels. It is these levels that often determine an employee's success in an organization. The association of maturity level and leadership acumen further proves that there is a gap in the leadership knowledge, skills, and abilities demonstrated by most IT professionals.

WHY IT NEEDS LEADERS

IT's Role in Business Leadership

The CIO's role has increased in importance over the last 10 years. That person is now viewed as one of the organization's top-level leaders. But what about the CIO's subordinates? Today, IT managers have the critical job of ensuring the technology is up 99.999% of the time. That doesn't leave much room for error. A recent study predicts that worldwide IT spending will reach US \$3.7 trillion in 2013, a 4.2% increase from last year. Another expects the global technology market to grow by 5.4% this year and 6.7% in 2014.³ All this IT spending means additional manpower and greater influence for IT leadership. This further demonstrates the need for quality IT leadership to ensure the technology and the personnel who manage it meet organizational and customer needs.

IT/Business Collaboration

IT and business functions must collaborate in order to survive. In his book *Does IT Matter?* Nicholas Carr asks the question, "Isn't it enough for IT to enable companies to operate more efficiently or deliver better services, to reduce costs or heighten customer satisfaction?"⁴ In a word, no — it's more than just that. While IT is seen as a utility (like electricity, water, etc.), it can still be an enabler and differentiator for the business. There are great advantages to having a mature, efficient IT function. But it takes a joint effort among business, operations, finance, and IT. IT alone can't cut it. IT professionals must be able to work with and be seen as the equals of their business counterparts. Strategic fit among the various systems components and the business processes they support is fundamental to competitive advantage and the sustainability of this advantage.⁵

Responsibility Without Authority

IT leaders must have the authority to make changes that match their responsibilities in the organization. To paraphrase security expert Eugene Spafford, "If you have

responsibility for [IT], but have no authority to set rules or punish violators, your own role in the organization is to take the blame when something big goes wrong."⁶ While Spafford wrote this about security, it applies equally to IT leadership. Many organizations want to diminish the importance of IT personnel because their value is not understood. They do so at their own peril.

STEPS ON THE PATH TO IT LEADERSHIP

There are definitive steps anyone in IT (or any other position for that matter) can take to dramatically improve their effectiveness. Current or future IT leaders can use these steps no matter their job title, status, or position in the company. All it takes is a willingness to try and practice.

Understand People

Rear Admiral Grace Murray Hopper is famous for saying, "You manage things; you lead people." You lead when others follow.⁷ If understanding people is so important, why don't more IT leaders take the time to study human behavior? It's often because it's a "soft" skill that's generally not included in the computer science curriculum, and there are so many more cool technology topics to take up our time. However, IT leaders should study how people operate, just as they'd study how their technology works. You wouldn't ask a systems administrator to take care of an operating system he or she isn't familiar with. Why, then, do we make techies into team leads when they haven't taken the time to understand how to motivate the people around them? While leadership can be a natural talent, it takes practice to build it into a true strength. Technologists should be given the opportunity to study and practice in a safe environment under the tutelage of an experienced mentor.

Inspire Confidence

Leadership is the capacity and the will to rally men and women to a common purpose and the character which inspires confidence.

— Gen. Bernard Montgomery

That sentence alone describes many of the necessary characteristics of effective leaders. Those traits include the ability to positively influence those around them, no matter where they are in the organizational structure. IT leaders must also be able to establish a vision to prevent or resolve problems. It's a focus on solutions rather than problems. Leaders must also be able to communicate that vision so others can understand. This may be in

the written or spoken word or both. Leadership also requires trust between both the leaders and the followers. The people you are leading must have confidence in your knowledge and abilities. This trust comes from some type of validation that the leader has the abilities to get the job done. It's also about integrity to do the right thing, in the right way, at the right time.

If your actions inspire others to dream more, learn more, do more, and become more, you are a leader.

— John Quincy Adams

Use the CARES Methodology

To help current or future IT leaders improve their leadership skills, we offer the CARES Method: Confidence, Attitude, Relationships, Education/Encouragement, Service. It is based on methods for establishing good relations with others and thereby influencing their activities and behaviors. Without all these elements, you cannot be an effective leader.

People don't care how much you know until they know how much you care.

— Dr. John C. Maxwell

Confidence

Leaders must have confidence in themselves along with the confidence of their followers. As stated earlier, leaders establish a trusted relationship with those around them. First, leaders must believe in themselves, and know their own strengths and weaknesses, so others can believe in them. This doesn't mean cockiness or self-adulation; rather, it is a basic understanding of oneself. A true leader must have the confidence to take command when the time is right.

Before you are a leader, success is all about growing yourself. When you become a leader, success is all about growing others.

— Jack Welch

Attitude

Leaders must have the right attitude, for whatever their attitude is, it will be reflected and multiplied by those they lead. Your attitude controls your mind, and your mind controls how you are perceived by others through your words, actions, and body language. Having the right attitude can make up for other deficiencies or even mistakes. Conversely, a poor attitude can and usually will bring down those all around you. Leaders need to be aware of their demeanor. Even if you can't be positive, at least be neutral.

Ability is what you're capable of doing. Motivation determines what you do. Attitude determines how well you do it.

— Lou Holtz

Relationships

Leadership is about establishing a relationship with those you lead. It doesn't need to be a formal relationship, nor does it need to be long-lasting. You don't need to be an extrovert to do this, just have a willingness to get to know people. True leaders need to understand those they are leading and how they work and function. This includes knowing when to empathize and encourage and when to challenge your people. The only way to do this is to understand what motivates them. This means being present for your followers and letting them know that you're there for them. It can be as simple as Leadership By Walking Around (LBWA). LBWA will increase your accessibility and therefore your ability to relate. While you're with your people, take the time to really listen to them and understand both the good and bad things that are happening. It's important not to "shoot the messenger" but to listen with an open mind. By actively listening, a leader can learn a lot about his or her people, team, and organization.

Seek first to understand, then to be understood.

— Dr. Stephen Covey (echoing Saint Francis of Assisi)

Education/Encouragement

Leaders are learners and educators. They keep an open mind along with an open door. This encourages their team members to move forward together and utilize each other's strengths. Leaders cannot know everything and cannot do everything. Both managing an organization and maintaining IT take teamwork. IT leaders should know their team, its strengths and weaknesses, and then use that knowledge. When a team member doesn't understand a problem or solution, the leader then becomes an educator for that person. This takes patience and the ability to teach and mentor. When this is done right, it encourages everyone to continually grow their knowledge and skills. This also means that the leader needs to practice CYA — Check Your Assumptions. Leaders shouldn't assume anything but should continually check facts to ensure their accuracy. They also shouldn't assume things about their people but let themselves be pleasantly surprised at what they can do.

Leadership and learning are indispensable to each other.

— John F. Kennedy

Service

Leaders serve their followers, not the other way around. They need to empower their subordinates and colleagues through an attitude of service. Leaders cannot do everything themselves. They must be able to recognize the talents and strengths of others in order to create the synergistic environments most effective in overcoming the challenges and obstacles that hinder getting the job done. To do this, leaders must be keenly aware of the necessary skills and abilities of their team members and be able to use them according to their strengths. But perhaps more importantly, servant leaders must know themselves, be willing to consider feedback, adjust when appropriate, and move forward with thought and consideration for others' opinions and feelings. In doing so, they become good role models for employees to emulate.

To command is to serve, nothing more and nothing less.

— Andre Malraux

RESPONSIBILITY AND LEADERSHIP

A key characteristic of leadership is responsibility. Leaders not only need to take responsibility but to delegate it as well. Furthermore, leaders must know who in the organization is responsible for each function. Leaders should seek out those people and bring them on board. This requires skills in communication and collaboration along with the willingness to compromise. Leaders must be clear and concise in their communications or else misunderstandings will occur. This means that they need to have a feedback loop in place to ensure there are no ambiguities in their direction. In addition, leaders need the ability to collaborate with all types throughout the business. They need to seek out the experts in each area in order to use them as a sounding board for setting the vision and solving problems.

Who Owns the Headache?

One method for determining ultimate responsibility for IT systems and processes is to ask, "Who owns the headache?" The person who shoulders the responsibility is often the same person who will be most affected if/when there is an issue with the system. This is a simple way to determine both those who are responsible for the system and those who use it. A business user may be slightly inconvenienced by an outage, but the systems administrators and managers will be up all night fixing the issue. It's those systems administrators who own the headache and therefore need to be engaged by the IT leader.

Authority to Match Responsibility

As mentioned earlier, leaders must have the authority to match their responsibility. Otherwise there's discord. They must be allowed to work across business units to ensure requirements are gathered and solutions are offered that meet business goals. Business leaders need to provide IT leaders with the opportunities to see that this occurs. If upper management doesn't provide IT leaders with respect, then the IT leaders' job will be much more difficult. IT leaders must do everything in their power to guarantee that they earn the respect of their business peers. This in turn establishes that the IT leaders' authority matches their responsibility.

A mentor-protégé arrangement helps develop a symbiotic relationship that enhances the growth and effectiveness of both the mentor and the IT leader alike.

Tips for Practicing Leadership and Teamwork In and Out of IT

In order to improve any skill, you must practice. In order to practice, you must be given a safe learning environment where you can receive constructive feedback on how to improve. Established leaders must take on a mentoring role. Those looking to move into leadership must seek out mentors. The mentor provides the IT leader with someone to emulate and offers honest feedback for growth. A mentor-protégé arrangement helps develop a symbiotic relationship that enhances the growth and effectiveness of both the mentor and the IT leader alike.

IT leaders need to be willing to take calculated leadership risks. They need to understand the risks and rewards associated with their decisions. In order to do this, IT professionals must get out from behind their computers and get to know people. It's as simple as answering an email in person rather than with another email. Another technique is to go to lunch with business counterparts — everyone needs to eat — and get them to talk about themselves and what they do. This builds trust and understanding for each of the parties. It also establishes an advocacy group for the IT leader who can help develop the vision and see that it's accomplished.

CONCLUSION

There's a definite need for more skillful leaders in IT. Many IT professionals are put into positions of leadership without the proper training and mentoring. It's up to all IT leaders to develop their skills, talents, and abilities in this area. They must recognize the importance of quality IT leadership for their organizations, their employees, and themselves.

Leadership is a constant growth process. It cannot be achieved by sitting at a desk or even reading a leadership paper, journal, or book, but — as we've outlined in this article — by thoughtful and diligent practice. It comes down to one simple thing: get out and do it. Practice being an IT leader, learn from your mistakes, and help others grow.

Leaders aren't born, they are made. And they are made just like anything else, through hard work. And that's the price we'll have to pay to achieve that goal, or any goal.

—Vince Lombardi

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A Model for Creating High-Performance Teams — From a Most Unexpected Source

by Hillel Glazer

What good is a high-performance team in a vacuum, and how long will one last without an environment in which it can thrive?

This is the question that comes to mind when I'm asked to comment on the role of leadership in high-performance teams. Teams may be able to achieve various states of high performance for a time, or from time to time, perhaps experienced by the team as being "in the zone." But my thoughts turn toward questions of *causing* teams to be in the zone on demand, and of *sustaining* a state of high performance.

THREE SIMPLE WORDS ...

Be. Do. Have. These three words outline what I've learned in life, and they work as a sequence to achieving sustained success. Ironically, in most cultures I've encountered, the success sequence is often performed backward, and doing it backward isn't successful. In fact, instead of success, the reversed sequence leads to a state of sustained *unfulfillment*. Too often, people operate in a "have-do-be" sequence. For example, "Were I to *have* money, I would *do* what people with money do, then I could *be* what people with money are" (rich). As a result, following this sequence leaves people perpetually unfulfilled because how much "have" do you need before you can start "doing," and how much "doing" is needed before you can declare yourself to "be rich"? Typically, starting with the "have" leads to never getting to the "be."

You can put anything in place of "money" (try "happiness") and see people running their lives and companies using this never-successful-but-always-alluring operating model (i.e., have what happy people have before you can be happy). Put another way, this is basically the "get something before you can be something" model.

We're inculcated in this approach practically from birth. It starts in most schools and sounds something like this: you're not considered smart unless you prove it with

grades. ("Have good grades, be considered smart.") Then we mature to: you're not qualified until you graduate; then that's not enough, and it becomes: you're not qualified until you're certified; and then: you're not qualified until you've done it before. It never ends ...

Have-do-be is a self-defeating and demoralizing Catch-22 of an approach that almost no one questions. To question it is even cause for being ostracized as an eccentric anticapitalist nonconformist. Meanwhile, we contradict ourselves by telling our young people, subordinates, and peers that they're to take risks, try new things, have confidence, "put yourself out there." The latter prescriptions are the exact opposites of the "you're not qualified until..." cycle. Who's crazy now?

To be clear, I'm not dismissing the value of doing what it takes to get grades, education, certification, and experience, but all too often these are relied upon as poor proxies for the more important and harder-to-pinpoint attributes that make people and teams perform at a high level. These are attributes such as initiative, interpersonal and communication skills, empathy, reasoning, confidence, and analytical skills — as applied in the real world, not in the classroom, not on a certification exam, and not in the antiseptic environments of many regimented workplaces.

IN THE RIGHT ORDER

I've found the inverse of the above — that is, "be-do-have" — to be a far more effective model. Let's use it with happiness this time: "Were I to *be* happy, I would *do* what happy people do, then I could *have* what happy people have." Or, in the case of our careers, employees, and teams, it would be less about "qualifications" and more about how people conduct themselves, what's important to them, and how they work with others. In other words, to be a high-performance team, people would conduct themselves in the ways in which members of high-performance teams behave. They'd *be* effective communicators; they'd *be* autonomous; they'd *be* good team players. The problem, however, is obvious:

telling people to “just be a high-performance team” or “just get it done” isn’t realistic either. People in the workplace need the foundations that only leaders can provide.

Too many organizations and consultants are operating backward, starting with the “do” instead of the “be.” And in order to start with the “be,” as in, “be a high-performance team,” we must start with what that takes. Hint: It’s *not* in the practices of what higher performance teams *do*; it’s in everything that makes it possible to *be* high performance. That is where leadership, coaching, mentoring, and team building come in.

Leaders who know how to allow high-performance behaviors to exist in their midst must be in place before these behaviors can ever be expected.

IT STARTS WITH LEADERSHIP

In fact, where coaching, mentoring, and team building come in is not necessarily where most organizations bring them into. Too often, they’re brought in at the team (or staff) level, whereas I believe they need to be brought in *first* for the leaders. Creating and fostering the cultural, interpersonal, and motivational environment for high performance will practically cause the high-performance practices and trappings to appear. Leaders who know how to allow high-performance behaviors to exist in their midst must be in place before these behaviors can ever be expected. Then, after considerable leadership navel examination, modest coaching and mentoring “in the trenches” are all that’s necessary.

We also see this happening with “stealth” instantiations of high-performance practices. In these efforts, in order to gain the buy-in of the leaders to allow changes to go wider and deeper, a small cadre in an organization is cultivated with the right leadership so that its success can be marketed around the company for broader adoption. Such an approach doesn’t change the fact that within the microcosm, leadership came first. Unfortunately, organizations commonly take a cargo cult approach where they mimic the practices of the microcosm but leave behind the underlying foundation of leadership that makes the practices not only viable, but worth doing. All of which, basically, demonstrates my underlying point: “the really hard stuff” is all about

leadership, while everything else is either enriched or starved as a reflection of the strength of the leadership.

Consider, for example, the simple idea of teaching continuous improvement as a mindset to every member of an operation, from the top executive to the newest entry-level employee. This is often referred to as a “*kaizen* culture.” Continuous improvement to that degree requires an appetite for change. Often completely surprising and innovative ideas for change will show up, and leaders need to be open to receiving such ideas. Teaching people a *kaizen* culture is a lot easier than truly allowing the culture to materialize in the organization and for any true improvements to be actualized. Again, leadership is where it starts.

A GUIDE TO “BE”-ING

So what’s an organization to do? How are leaders to know what “be” looks like? How do they make “be” happen? Maybe if there were a few clues about what they could “do” to guide them, the “be” will become more obvious?

Barring an existential spiritual awakening toward enlightenment, how can leaders work through what often appears as an endless, unformed cloud of possible approaches? This topic certainly can’t lack for resources to foster what’s needed. And, of course, it doesn’t. But far too often, of the literature I’ve seen, so much of it starts and ends with behavior and culture and pays scant attention to the practical side of making the really hard stuff happen.

Daniel Pink,¹ the Heath brothers,² Tony Hsieh,³ Mary and Tom Poppendieck,⁴ and Jim Collins⁵ (to name a few among many others) have done tremendous jobs of raising awareness among business leaders of the need to address this really hard stuff. Their works even offer ways of making the difficult practical. I’ve taken a shot at it myself in my own book, *High Performance Operations*.⁶ However practical, many leaders seek a systematic (if not exactly laid-out) approach to putting in place an organization-wide, long-term infrastructure to sustain what it takes to “be” a high-performing team.

Leaders want an approach that can be applied in any context. They want structure, not scattered case studies. They also desire something that can match the dynamics of their operation and their teams and that works under many circumstances, not just once in a controlled setting. They also want a way to respond to the unknown and to be resilient in the face of unexpected twists. More than any of this, they want

to apply a proven, predictable, step-by-step body of knowledge that doesn't inherently assume they're evil and bias the results toward one particular outcome. And, while they're at the wishing well, it would be nice to have a measurable progression of activities to let them know how far they've come and how much further they have to go before they can credibly say they've done just about everything they can.

Until such an approach comes along, too many leaders are simply willing to forgo the benefits of high-performing teams because it's just "too hard." Unfortunately for them, and fortunately for their organizations, their time for excuses is now history. It turns out, in fact, that it's been "history" for decades. Exactly such an approach for dealing with these challenges has existed and has been available *for free* for nearly 20 years (more if you count the drafts).

From — Believe It — the SEI

It's a little-known gem from the most unlikely source. It's called the People Capability Maturity Model® (CMM®),⁷ otherwise known as People CMM or P-CMM. And yes, as the name implies, it *is* from the Software Engineering Institute (SEI)⁸ at Carnegie Mellon University. Perhaps it's the source that kept both leaders and consultants from ever learning about (let alone using) P-CMM. Perhaps it's the fact that it never had the "benefit" of being foisted on industry by a major force in the market. Whatever the reason, for many (if not most) readers, this may be the first they've ever heard of a "People CMM."

People CMM, like all CMMs, is a set of practices organized in a way to give organizations a maturation path for growing their capabilities. As the name implies, the capabilities in question are those that address how they deal with people — specifically, individuals and work groups in organizations.

Do these characteristics sound familiar?⁹

- Inconsistency in performing practices
- Displacement of responsibility
- Ritualistic practices
- An emotionally detached workforce

No, these are not organizational problems identified by some agile doctrine, except by happenstance. Instead, these words actually come from a publication produced by the very same SEI so many people in IT love to hate — the SEI that is demonized for having models that are

"out of touch" with the market and the "realities" of IT. Plus, they came out anywhere from two to 16 years *before* the Agile Manifesto.

To be specific, these words come directly from a description in P-CMM of "low maturity" organizations, meaning organizations that haven't yet effectively incorporated some of the basics of a "more mature" organization. A more mature organization would more effectively deal with work overload, reduce environmental distractions, provide clear performance objectives and feedback, ensure people have relevant knowledge and skills, and communicate effectively. All these activities of a slightly more mature organization would also better address matters of morale.

PERUSING THE P-CMM

Let's look a bit, but not much, deeper into what's in People CMM. As all CMMs are, P-CMM is also broken into "levels" of maturity. Individual Compensation and Individual Training and Development are considered "lower" on the ladder and more basic to achieving results, while Workgroup Development and matters of individual and group competency and group culture are higher, indicating a "take care of the basics first" approach. Empowered Workgroups and Mentoring are higher still, since empowerment and mentoring are pretty empty if the people aren't effectively trained and competent to be empowered or are not yet sufficiently mature to give or receive mentoring.

As in both Software CMM® and CMMI®, Maturity Level 1 has no content defined in it, making Level 2 the earliest level that contains defined content. In People CMM, the Level 2 process areas are:

- Staffing
- Communication and Coordination
- Work Environment
- Performance Management
- Training and Development
- Compensation

Again, this is the *earliest* set of process areas. Before systematically addressing more lofty concepts such as mentoring, empowerment, or innovation — at an organizational level — these basics are laid out as the building blocks for a high-performance organization. While we may squabble over when or whether to introduce higher-maturity activities beyond these basics, I expect

we would agree that team members are not going to be very productive (let alone high performing) when they aren't compensated fairly, aren't trained to do their work, aren't given fair objectives, and aren't measured fairly on the work they do — even if they are “empowered” to do their own thing. And if all this occurs in an environment where management and staff can't ever seem to get on the same page, they aren't going to take mentoring very seriously either. In other words, they won't really get to, or sustain, the “be” of a high-performance team. Thus, the breakout of the levels.

The only thing P-CMM lacks is excuses for not doing what it takes to foster a high-performance organization.

Organizations are free to apply P-CMM practices as broadly or deeply as they see fit. Nothing in P-CMM limits or expands the practices within it to any portion of the organization (whole or subset). Nonetheless, positive results are more likely to be produced when certain topics are laid as a foundation to address others to follow. For example, Competency Analysis (in Level 3) is meaningless without Performance Management (in Level 2), and Participatory Culture (in Level 3) is pointless prior to dealing with Communication and Coordination (in Level 2).

Granted, not every organization has issues with the basics. Keep in mind, P-CMM is an *improvement* framework. An organization that already handles Staffing (in Level 2) pretty well doesn't need to invest improvement energy there prior to working on improving Workforce Planning (in Level 3).

Let's look more closely (but not too closely) at just one of People CMM's process areas, Staffing:¹⁰

The purpose of Staffing is to establish a formal process by which committed work is matched to unit resources and qualified individuals are recruited, selected, and transitioned into assignments.

Goal 1 Individuals or workgroups in each unit are involved in making commitments that balance the unit's workload with approved staffing.

Goal 2 Candidates are recruited for open positions.

Goal 3 Staffing decisions and work assignments are based on an assessment of work qualifications and other valid criteria.

Goal 4 Individuals are transitioned into and out of positions in an orderly way.

Goal 5 Staffing practices are institutionalized to ensure they are performed as managed processes.

What's this all about? From what you perceive as being at the heart of high-performing organizations, how different is this from what you'd expect to see? You'd expect all this from a high-performing organization, wouldn't you? Yet it's not about the team at all, is it? It's about the leadership.

There are 28 pages of explanation, examples, and broad practices described to help leaders understand this one P-CMM process area. On these pages is guidance on what to do to help ensure there's commitment to achieving the goals, how to measure for performance, and what to put in place to see to it that the organization has the ability to conduct its affairs so that these goals are routinely achieved.

How well does your organization accomplish these goals? I know I've been in plenty of workplaces (as an employee as well as a consultant) that can't get a handle on four of the five. You can probably guess which *one* of the goals above most organizations have no trouble with — and they don't see why being effective at that one goal absent the other four leads to so many issues. In fact, I've been in organizations that are willfully dismissive of several of these goals. With this much content on just improving Staffing — ordinarily considered the most basic activity of growing and running any organization — imagine what else is out there that organizations around the world are failing to accomplish in the five other *basic* process areas.

And those are merely the beginning! For completeness' sake, I'll list the remaining process areas and the maturity levels they fall into:

Maturity Level 3

- Competency Analysis
- Workforce Planning
- Competency Development
- Career Development
- Competency-Based Practices
- Workgroup Development
- Participatory Culture

Maturity Level 4

- Competency Integration
- Empowered Workgroups
- Competency-Based Assets

- Quantitative Performance Management
- Organizational Capability Management
- Mentoring

Maturity Level 5

- Continuous Capability Improvement
- Organizational Performance Alignment
- Continuous Workforce Innovation

HELP WITH “THE REALLY HARD STUFF”

What we can see from the full list of P-CMM process areas is that it is quite thorough in covering topics that create high-performance organizations. P-CMM is not about forcing processes on people; it’s about leadership taking the subject matter of their people seriously.

What we can also see is that an organization’s leaders don’t have to guess their way around dealing with the really hard stuff. People CMM provides everything they’re looking for: a clear path forward, predictability, structure, a systematic approach, and guidance on what to do that’s not prescriptive, static, or contextually out-of-sync with their organizations. It even has a convenient way to measure progress and to benchmark team members’ performance. The only thing P-CMM lacks is excuses for not doing what it takes to foster a high-performance organization.

We can cry together into our collective beers over the sad reality that companies don’t often effectively invest in their people. We can lament the seemingly indiscriminate nature of cuts organizations make to programs and infrastructure that affect their people. We can cynically roll our eyes over jargon-filled slogans intended to cover up the fear and discomfort of making real behavioral changes. We can shake our heads ruefully at the apparent carelessness, if not callousness, of decisions that undercut the performance of an operation.

Or we can use the structure and discipline embedded in People CMM to give true leaders the tools to create an organizational infrastructure to “be” a high-performance organization, so that their people will “do” what high-performance organizations do, and then they’d “have” what high-performance organizations get to enjoy.

ENDNOTES

¹Pink, Daniel H. *Drive: The Surprising Truth About What Motivates Us*. Riverhead Books, Penguin, 2009.

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⁴Poppendieck, Mary, and Tom Poppendieck. *Leading Lean Software Development: Results Are Not the Point*. Addison-Wesley Professional, 2009.

⁵Collins, Jim. *Good to Great: Why Some Companies Make the Leap ... and Others Don't*. HarperBusiness, 2001.

⁶Glazer, Hillel. *High Performance Operations: Leverage Compliance to Lower Costs, Increase Profits, and Gain Competitive Advantage*. FT Press, 2011.

⁷People Capability Maturity Model® (P-CMM), Version 2.0, CMU/SEI-2001-MM-01.

⁸As of December 2012, People CMM and other products of the SEI have been transitioned to Clearmodel, LLC. Based in Pittsburgh, Pennsylvania, USA, and part of Carnegie Innovations, a technology commercialization enterprise and 100%-controlled subsidiary of Carnegie Mellon University, Clearmodel is an organization dedicated to the cultivation and commercialization of best practices and model-based improvement methodologies.

⁹People Capability Maturity Model (see 7).

¹⁰People Capability Maturity Model (see 7).

Hillel Glazer, a Senior Consultant with Cutter’s Agile Product & Project Management practice, is recognized as the world’s leading authority on introducing Lean and Agile concepts into the regulated world. In particular, he’s the “AgileCMMI guy” (agilecmmi.com) and the SEI’s go-to authority on Agile, having coauthored its only paper on the topic and contributed the Agile content in the new CMMI for Development v1.3. Mr. Glazer has helped companies of all sizes and in all locations successfully blend agile with CMMI and achieve performance benefits, not just artifacts and ratings.

Mr. Glazer’s professional passion is to work with companies that are motivated to achieve world-class operations and excellence. Recently, as a Visiting Scientist at Carnegie Mellon University, and now as an independent contractor, he has contributed to the SEI’s Services constellation, where the concepts of Kanban fit well with the Service model. As such, he is working with more and more companies to adopt Kanban and CMMI to achieve their performance objectives. His approaches have successfully harmonized Lean and systems thinking in highly regulated industries that demand compliance and governance while in pursuit of excellence and profits. His book High Performance Operations lays out exactly how he does it.

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The Prism View Technique: A CIO's Framework for Designing Successful Organizational Training Programs

by Debabrata Pruseth

Until recently, most analysts were predicting the death of the CIO role. The emergence of cloud computing, which offers migration of software (SaaS), platform (PaaS), and even infrastructure (IaaS) to the cloud, made the traditional CIO post look redundant or limited to managing service-level agreements with cloud vendors.

But while cloud adoption in the industry is indeed growing rapidly, is the advent of cloud computing moving the CIO role toward obsolescence? The answer is no. Then where did the analysts go wrong? What they missed is a host of new technologies: namely, Big Data, analytics, mobility, and social channels. As these technologies have emerged, they have brought with them disruptive innovation in the IT landscape, which is difficult for any business to ignore. The role of CIO as an adopter and propagator of emerging technologies in the organization has thus become pivotal for the business to succeed, by leveraging these technologies to decrease operating costs, improve time to market for new products and services, engage and enhance customer satisfaction, and stay ahead of the competition.

As a result, CIOs today not only act as the custodians of technology and information for their organizations, but are also working with various departments to build new skills and help the organization get the most out of its IT investments. In one such role, CIOs are increasingly working hand in hand with the HR department to define and implement crucial IT-related training programs in order to disseminate new technologies and IT skills in the organization, as gradually more and more business functions are being carried out by IT systems.

Now, one might feel that it is the adoption of these new technologies that requires the CIO to get involved in designing training programs for the organization. But even if organizations do not adopt the latest technologies immediately, the CIO must still help the business achieve its goals/objectives in today's knowledge-driven economy through leveraging existing IT capabilities. In one of our consulting engagements with a large public-sector bank in the Asia Pacific region, my

colleagues at Tata Consultancy Services (TCS) and I were charged with improving process efficiency in the bank's IT department, which houses one of the largest core banking IT system deployments in the world. During our interview with top IT executives, we repeatedly felt that the lack of an effective training and knowledge management program was one of the major pain areas. As bankers, the officers behind the IT system were the best in their field, but they lacked key skills for running the core banking IT system they had deployed and were heavily dependent on the external vendor that was running it for them. The CIO could not find inhouse skilled resources to support the legacy system and establish a knowledge management environment. This was a major risk to the organization, since its core business was being run by an IT system that was fully dependent on a vendor. It was not just credit risk, swap risk, or the other banking-related risks that threatened the business — even IT had become a risk item. Not surprisingly, the CIO was worried.

This context brings us to the broad question of how a CIO should develop an effective training program, taking into consideration the aspirations of all the stakeholders, including employees and business colleagues. The framework described here, which I call the "Prism View" framework, will help CIOs build a clear picture of the current IT training landscape, define the target desired state, analyze the gaps, and build effective training programs for the organization.

THE PRISM VIEW FRAMEWORK

When white light passes through a prism, it scatters into a spectrum of seven colors, each color having its own identity and place in the spectrum (see Figure 1). The spectrum colors may look bright or dull, depending on the property of the prism and the surface on which the spectrum is projected.

Imagine the current training program initiatives undertaken by your organization as the white light. Now scatter it through the view of a prism. The prism is a

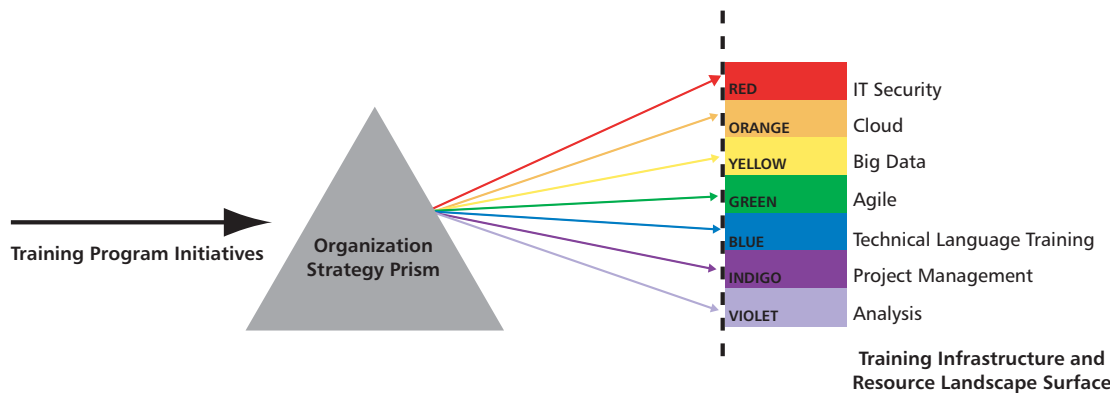


Figure 1 — Current training program as-is landscape for an organization.

metaphor for the current organizational strategy. The surface on which the scattered light is projected is the current organizational training infrastructure and resource landscape that supports and facilitates these training programs. The subsequent sections of the article introduce each entity of the framework in detail and lay out the methodology for defining, building, and implementing the framework for developing successful training programs.

ELEMENTS OF THE PRISM VIEW FRAMEWORK

Prism: The Organization Strategy

The prism represents the existing strategy of the organization and the place IT holds in it with regard to achieving the goals. Is the current IT strategy aligned with the business strategy? Does the business consider IT as a partner or merely an enabler? Just as a prism of inferior quality does not give the proper spectrum, nonalignment of business and IT strategy hampers the building of an effective training program. There are three types of prisms that symbolize the current business and IT strategy alignment:

1. **Dark prism.** The role of the CIO has not matured. The business still thinks IT is just an enabler and not a partner.
2. **Shady prism.** IT is helping hand-in-hand in business processes. Nevertheless, the CIO takes a back seat while the business takes important decisions.
3. **Transparent prism.** The business and IT work as a single entity. The CIO takes part in important day-to-day business meetings and is a part of the decision-making process. The business realizes the value of IT as a strategic partner.

Which type of prism characterizes your organization?

Spectrum: The Individual Training Programs

Spectrum colors represent the training programs. As the colors in a spectrum have a priority sequence — red being the first and violet being the last — it is important that the individual training programs be identified, prioritized, and analyzed in detail. In the Prism View, we will consider only the top seven training program initiatives.

Each Color Has Its Position in the Spectrum

For example, in Figure 1, IT security training has been identified as the top-most priority (red) followed by cloud (orange), Big Data (yellow), and so on. Similarly, each organization will have its unique set of training programs prioritized as per the organizational needs and strategy. For example, in a steel plant, the red color might be quality training, while orange might be safety training. Prioritization does not necessarily imply that one training program is more important than another in an overall sense; it just indicates which program is most aligned with the organization's needs right now.

Each Color Has a Unique Characteristic

The color contrast (dull/bright) represents whether the target goal of establishing the individual training program has been achieved successfully and the organization is compliant. For example, in Figure 1, a bright red color represents that the security training has been successfully implemented; all employees have been successfully trained in it, and it is well practiced in the day-to-day activities of the organization.

In contrast, a dull red color indicates that though the organization has prioritized security training as the top-most priority, it has not been able to successfully implement it. There are a lot of security breaches, which is clearly a concern for the organization. More effort needs to be devoted to achieving the individual training

program objective. You need to assess which colors in the spectrum are bright and which are dull.

The Spectrum Surface: The Infrastructure and Resources Available for the Training Programs

The surface on which the spectrum is projected represents the infrastructure and resource landscape that supports and enables the training programs. The major entities in this landscape would be the training department, the trainers, the medium for conducting training (Web, classroom lectures, etc.), the infrastructure for conducting training, the mechanism for collecting and evaluating training feedback, and so on. A smooth surface indicates that the organization has the necessary infrastructure and resources to support all types of training program requirements. A rugged surface indicates that IT systems and resources are not mature enough to support various training initiatives effectively.

FRAMEWORK METHODOLOGY

The Prism View framework contains steps that will help CIOs capture the current IT training landscape, define future training requirements, analyze the gaps, develop effective solutions, and implement these solutions (see Figure 2). Let's discuss each one in turn.

Capture the Current IT Training Landscape

Before embarking on designing new training programs, it is important for the organization to know where it currently stands with respect to its training needs and the current training initiatives. To capture this, begin with understanding the prism; that is, the organization strategy. Is your organization strategy conducive to IT initiatives, including training programs? Does the business consider such training initiatives as sunk cost or value-added investments? Is the prism dark, shady, or transparent?

The second step is to capture the current training programs being undertaken and their state. What are the red, orange, and yellow colors of the spectrum? Which training programs are the focus of your organization, and how successfully have they been implemented? Which colors are bright and which are dull? A qualitative analysis backed with quantitative data (if available) will help you draw this current as-is picture.

The third step is to capture the current training infrastructure and support function capability and maturity. Do you think the organization training landscape is conducive to supporting the training initiatives? Is the spectrum surface rugged or smooth?

While building the current state landscape, keep the following questions in mind:

- What are the actual training needs of the organization?
- Do the current training programs cater to all these needs? Are the objectives of the training programs being achieved?
- Are the current skills being imparted actually being used by learners in the workplace?
- What is the current skill inventory of the organization at different proficiency levels?
- What is the demographic makeup of the organization? How significant is the population of Gen Y?

These questions will help in the subsequent gap analysis and solutions devising phase.

Define Future Training Requirements and Landscape

For any training program to show results, the organizational strategy must support IT initiatives. The prism has to be transparent. This is the first goal.

Second, the organization must define and lay down the training programs it needs to focus on in the future based on its needs and strategy. Most CIOs don't spend much time in understanding and defining the exact needs of the business with respect to training requirements but rather jump over to the next phase of designing the training program. If needs are not captured correctly, the program developed will not meet the desired expectations. Many training programs have backfired because the people who developed them weren't clear about the ground-level learning needs, stakeholders, or necessary business results.

What should be the top-most training priority in the next quarter? If a company is outsourcing most of its infrastructure to the cloud, then cloud training should become the top-most priority. In the case of our hypothetical organization, this would mean cloud would be red, while agile training can be orange, Big Data can be yellow, and IT security can be green (see Figure 3).



Figure 2 — Steps involved in the Prism View methodology

Also the organization needs to ensure that all future training programs achieve their target goal; the color should be bright, not dull.

The third task is to smooth the spectrum surface if it is rugged. The training support infrastructure and resources should be agile and productive.

Keep the following questions in mind while building the target to-be state:

- What should be the target skill inventory for the organization?
- What is the industry trend; what are competitors doing to train their employees?

Do Gap Analysis and Devise Solutions

Once you have decided on the to-be state, it is essential to detect the gaps between the current and target state and develop solutions to close these gaps to achieve a perfect spectrum. In the example we have been discussing so far, there are three main gaps that have to be resolved.

Gap 1: Making the Prism Transparent

The CIO needs to ascertain the importance of IT to the business and take business peers into his or her confidence. IT cannot just be an enabler; it has to be made a strategic partner. The CIO might present case studies and scenarios showcasing how IT has been adding value to the business and how in the future IT will help the business expand and sustain itself. It is essential to get the confidence and backing of the business before embarking on any strategic initiative, such as long-term IT training programs. Otherwise, the business might feel that IT is a black hole with negative ROI and consider the training initiatives a sunk cost.

Gap 2: Restructuring the Spectrum and Making All Colors Bright

In the long run, the training programs need to be reprioritized and perhaps some new training programs introduced based on organizational strategy and requirements. In the example we have been discussing so far, cloud training needs to be given top-most priority now.

Also, we have to look into why the red in the as-is state — the IT security training program — is dull (meaning it failed to meet its objectives). Gather the information from managers and all stakeholders whose departments were the targets of the security training program. Brainstorm with a group of experts and study best practices and successful case studies in the market to find solutions. Past mistakes must be rectified and not carried forward or spilled over into other training program initiatives in the future. On the other hand, best practices and learning need to be highlighted and carried forward.

Gap 3: Making the Spectrum Surface Smooth

If extra resources are required for building training infrastructure or conducting the training, then go ahead and bring them on board. The training infrastructure should have the capability to evaluate each training program initiative. Also, even if you have the best-in-class training program but not skilled and qualified trainers, then the entire program will be in vain.

While working on a solution to design the training program, keep the following in mind. The training program should:

- Meet both learner and business needs¹
- Produce measurable bottom-line results for the business

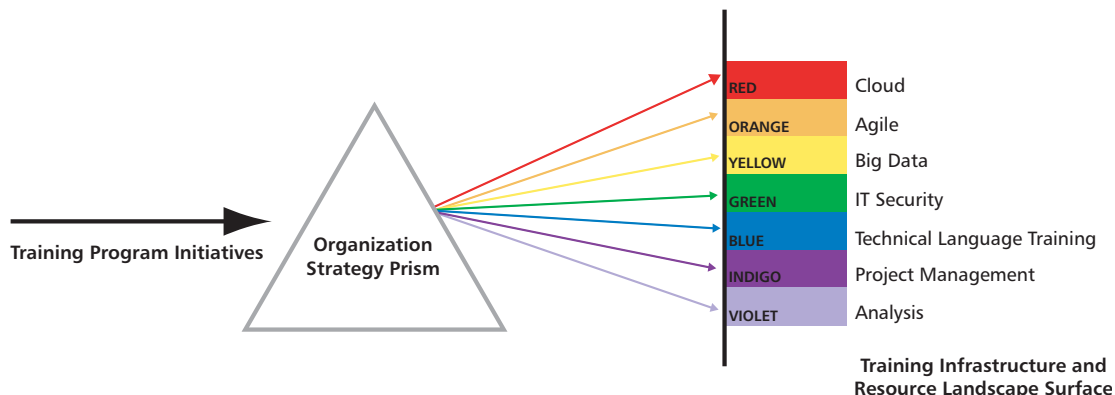


Figure 3 — Target training program to-be landscape for an organization.

- Not repeat earlier mistakes
- Involve vendors, wherever possible and appropriate, to facilitate specific trainings for the organization

Individuals have different learning styles. Psychological profiling of the learners will also go a long way in designing the optimal methodology for imparting the training program. There will be a one-time cost for undertaking such an assessment of all the existing employees, and new hires can be given the test when they join the organization. Training expert Karen Lawson has identified four learning styles: doer, feeler, observer, and thinker (see Table 1).² Identifying which styles your learners favor will help you identify the best training approaches, whether they be lectures, online training, or practical exercises administered to a group of learners.

Build Implementation Roadmap

While building the implementation roadmap for the target spectrum design, it is advisable to take a phased approach. Don't try to resolve all issues at one time. For example, in the first phase, you might work to make the prism transparent and make cloud training the top-most priority. In the second phase, go for filling in the gaps for the IT security training program and turning dull colors bright. The smoothing of the spectrum surface can take place in a parallel phase encompassing all the above phases. Keep abreast of the changing requirements of the business and market dynamics and be agile enough to change the spectrum accordingly whenever the need arises.

It should be understood that the spectrum colors only give a high-level indication of the skills that need to be adopted in the organization. The CIO needs to sit down with various stakeholders, including HR, to build the detailed implementation plan. Some questions to ponder are:

- What should the organization's skill base be?
- Which training should be imparted to whom? Who should be a part of the cloud training, and who should receive the agile training?
- How many associates should be trained and how many skilled lateral hires recruited?
- Which roles in the organization need which specific skill sets and at which proficiency levels?
- What should be the mode of the training program? Should the training capability be built inhouse or should it be outsourced?

Nowadays, with the explosion in online learning, massive open online courses (MOOCs) are gaining huge popularity among students and professionals, who can learn new skills for free or at competitive prices just by connecting to the Web from anyplace in the world.³ Online learning platforms such as Coursera, edX, and Udacity provide detailed courses on emerging technologies by some of the best professors in the world. Industry is slowly coming to recognize these courses. To reduce overall training costs, having employees trained through MOOCs is not a bad idea.

Table 1 — Preferred Training Methods According to Learning Style (Source: Lawson)

Learning Style	Characteristics of the Individual	Preferred Training Method
Doer	Prefers to be actively involved in the learning process, wants to know how he or she will apply learning in the real world, likes information to be presented clearly and concisely	<ul style="list-style-type: none"> • Practice • Applying concepts • Simulations
Feeler	People-oriented, expressive, focuses on feelings and emotions, thrives in an open, unstructured learning environment	<ul style="list-style-type: none"> • Personal experience • Role playing • Group exercises
Thinker	Relies on logic and reason, likes to share ideas and concepts, analyzes and evaluates, enjoys independent work	<ul style="list-style-type: none"> • Reading • Questioning • Independent activities
Observer	Likes to watch and listen, tends to be reserved, will take his or her time before participating, thrives on learning through discovery	<ul style="list-style-type: none"> • Lectures • Discussion • Problem solving

Another important thing the CIO needs to keep in mind is balancing between training cost, time, and effectiveness (see Figure 4). In most cases, for a defined target set of training objectives to be achieved with given effectiveness, the cost involved in conducting the training program and the time required to train the associates remain inversely proportional (see Figure 5). If you decrease the cost, then the time component will increase and vice versa. For example, if you invite everybody to one place for an in-person classroom training, then the cost of the training program will increase and the time required to effectively train the employees will decrease. On the other hand, if you try to decrease costs by using online training, then the time taken to train the associates with the same effectiveness will increase. The CIO needs to find the best balance of all three factors.

Some additional suggestions for this stage:

- Implement a performance analysis tool to check periodically that the training program is meeting the stated goals.
- Implement an evaluation tool to measure the reactions of trainees, learning levels, and ROI.
- Establish a procedure to check that the new skills taught are being used in the workplace.
- For large implementations, go for a test run first.
- Define the key milestones and success factors. Periodically share updates with business and other stakeholders.
- Do not try to build everything new. Try to leverage the existing infrastructure and resources.

CONCLUSION

With tech-savvy Gen Y now moving into the workforce, IT moving hand-in-hand with the business, and the emergence of new technologies like the cloud, Big Data, mobility and social channels, it is becoming more and more challenging for today's CIOs to build and maintain the necessary skill sets within the organization. The dynamics call for building effective training programs that take into consideration the needs of all stakeholders.

The Prism View framework can enable CIOs to assess the current training landscape, define the target state, analyze the gaps, and implement successful training programs for the organization. This framework is easy to comprehend, learn, and use. It uses a simple analogy from nature and science, the spectrum created by a prism, to help create a framework to design and deploy successful training programs.



Figure 4 — Balance among training cost, time, and effectiveness.

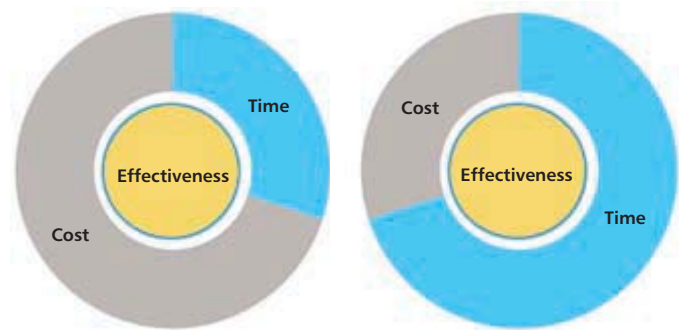


Figure 5 — The inverse relationship between training cost and time.

ENDNOTES

¹According to a *Wall Street Journal* article, "US firms spent about \$156 billion on employee learning in 2011.... But with little practical follow-up or meaningful assessments, some 90% of new skills are lost within a year." See: Silverman, Rachel Emma. "So Much Training, So Little to Show for It." *The Wall Street Journal*, 26 October 2012.

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Investing in Human Capital and Creating an Entrepreneurial Culture: The Egyptian Experience

by Sherif Kamel

Investing in human capital should always be the priority for individuals, organizations, and societies in order to constantly move forward.¹ It is people who make the difference — they have been and will always be the differentiating factor in a world increasingly driven by fierce and timely competition. Business schools around the world regularly look for niches to better serve their local community and establish their place in the global educational landscape. The American University in Cairo (AUC) School of Business is just one example of over 12,000 business schools around the world that are trying to make an impact for their different constituents. The school is driven by the notion that entrepreneurial education is invaluable for Egypt's development and growth. This has been the case in the past and has been reinforced following the events that have unfolded as of January 2011.

Since the mid-1970s, AUC has emphasized its determination to focus on promoting the private sector. Back then, the public sector was dominant in Egypt, and fresh graduates' optimal employers were the government and the public sector. For the last four decades, AUC, through its executive education platforms — namely the Management Center established in 1977 and the International Executive Education Institute established in 2008 — have been investing in human resources across different sectors. During that period, over 160,000 Egyptian executive, government, and public- and private-sector employees were trained. For all those years, the school has been offering the most comprehensive and diversified executive education portfolio in Africa and the Middle East. The offerings have been synchronized on a regular basis with decision makers in business, government, and industry to incorporate know-how and timely content based on market needs. The school-corporate collaboration represents a model partnership that has catered for the needs of a community eager to develop an agile private sector. This partnership has targeted investment in human resources in priority sectors and areas that could benefit the economy.

Egypt is a country of over 90 million people — 58% of whom are under the age of 25 — which is growing at 1.9% per annum. For years, the aspiration of many of its youth has been to work for the government and the public sector. Due to the efforts of AUC's executive education and lifelong learning programs, together with many other efforts across the nation, this situation started to change over the last decade. There has been an increasing interest in promoting small and medium-sized enterprises (SMEs), startups, and the private sector in general. This has led AUC to focus the content, curriculum, and associated activities of executive education and lifelong learning on promoting the private sector and the creation of the entrepreneurial space. Investing in people is investing in the future of society, and the core investment space is the private sector.²

ENTREPRENEURSHIP AND INNOVATION PROGRAM

Entrepreneurship as a theme and a direction was perceived by AUC School of Business as one of three building blocks that can take the nation to the next level; the other two are innovation and leadership. To create the entrepreneurial space and culture, there was a need to think outside the box — to avoid being risk-averse and instead be driven by innovation and creativity. Therefore in October 2010, the Entrepreneurship and Innovation Program (EIP) was formulated to help realize the mission the school set in 2009: “to create an environment that fosters the development of principled and innovative business leaders and entrepreneurs who can make a difference.” EIP was established with a dual-pronged goal: on the one hand, to spread ideas of entrepreneurship and innovation to a broader audience by educating students, graduates, and interested individuals, and on the other hand, to identify, mentor, incubate, connect, and support those who possess natural entrepreneurial talents, skills, and capacities in their endeavors in the entrepreneurial space.

The key strategic objectives of EIP include:

- Encouraging employment and job creation
- Investing in people
- Fostering innovation
- Focusing on the development of high-growth SMEs
- Empowering and engaging youth and building their entrepreneurial capacity
- Engaging the private sector in community development, such as corporate social responsibility and good citizenship

In order to achieve these objectives, EIP has been sowing the seeds and tilling the ground for a rich and successful entrepreneurial environment that invests in human capital and addresses organizational and societal needs.³ The last two years have been quite eventful for EIP, which has lit the spark of entrepreneurship that has started glowing in thousands of young smart Egyptians eager to learn more, get mentored, and bring their ideas to fruition.⁴ Moreover, unlike the conventional wisdom that says everything in developing countries happens in the capital and the big cities, the talented students that are benefiting from EIP are coming from all over Egypt's 27 provinces, with representatives from 4,000 remote villages and underprivileged communities among them. EIP is open to students from all universities and to all of Egypt's young entrepreneurial citizens. The program has gradually become the core educational component in an ecosystem that is still in the making. By design, EIP looks for talented entrepreneurs in order to stimulate their ideas, establish a web of those ideas, cultivate a society of mentors, help transform ideas into startup ventures, and open doors to many sources of funding to turn those ideas into finished products and services.

In collaboration with different stakeholders within AUC and school partners within the community, EIP aims to educate, train, and inspire entrepreneurs in the intricacies of entrepreneurship through a combination of seminars, workshops, networking events, mentorship

opportunities, business boot camps, and business plan competitions.⁵ All elements represent complementary parts of an integrated learning experience. The comprehensive learning map is designed to help entrepreneurs generate ideas for businesses and then connect the most viable startups to incubators and help them find venture capitalists, angel investors, and other sources of seed funding. Mentoring is an integrated element in the curriculum, consisting of a series of 30-minute networking sessions with a range of startup veterans in different fields. Mentorship and learning from role models reflect the integration of theory and practice, while blending industry and market experience into the knowledge disseminated among the participants. All these elements contribute to the development of human capacities that can meet market needs with value-added impact and benefits. Table 1 shows some of the impacts EIP has had from its inception to the present.

INVESTING IN HUMAN CAPITAL IS INVESTING IN THE FUTURE

AUC has formulated a strategy that focuses on entrepreneurship, innovation, and leadership while addressing the issues of ethics, responsibility, and citizenship.⁶ The platform for implementing the strategy is EIP, which couples academic content with extracurricular activities, societal projects, and a strong industry relationship. Investing in people and human capital is investing in the future of a nation, and EIP's vision is to help educate Egypt's potential leaders and entrepreneurs as well as create a robust and competitive private sector. The latter could transform a weakening economy that now stands at 1.8% annual growth as opposed to close to 5% five years ago.⁷ It is an encouraging sign that EIP has demonstrated success in creating a pipeline of young entrepreneurs who are in the process of launching their startups and contributing to economic growth. Obviously, given the size of the society, sustainability and scalability are integral to the success of such initiatives.

Table 1 — EIP Impacts (2010–Q1 2013)

150+ undergraduate and 50+ graduate students trained annually
60+ faculty and educators trained
5,000+ participated in entrepreneurship awareness programs
40+ organizations have participated in creating the ecosystem
2,000+ competed in startup competitions
100+ case studies developed on entrepreneurial startups
5 startups funded through the newly established investor network

ENTREPRENEURSHIP AND INNOVATION EDUCATION IN EGYPT

According to the *Global Entrepreneurship Monitor (GEM) Egypt 2010 Report*, the total entrepreneurial activity (TEA) rate — which measures the percentage of the population between the ages of 18 and 64 years old who are either actively trying to start a business or already own and manage a business — was 7% in 2010. With such a level, Egypt ranked 37th among 59 countries that had their TEA measured in 2010. It is important to note that the majority of Egypt's young entrepreneurs chose to pursue entrepreneurship because they do not have better employment opportunities.⁸ This confirms that training and executive education should be formulated around the priority areas and concepts important for the development, scalability, and sustainability of small and medium-size enterprises.

Egypt's youths are passionate and talented and are experiencing exceptional moments not only in their own lives, but in the history of their country.

Despite the small percentage of entrepreneurial activity, the government of Egypt has established several support programs offering training, financing opportunities, and technical assistance to encourage entrepreneurship. In terms of rules and regulations that ease the process of doing business, Egypt was considered among the top global reformers for the simplification of administrative work in 2007.⁹ Egypt's reforms are further highlighted by the creation of "one-stop shops" that allow the startup of a business to become an easier and more straightforward process.¹⁰ In addition, the government is supporting entrepreneurship through financial opportunities, such as banks' creation of departments to address particular SMEs' needs as well as other vehicles such as the programs for SMEs created by the Social Fund for Development and the Industrial Modernization Center.¹¹

THE ENTREPRENEURIAL UPRISING

Sometimes a business school chooses just the right strategy at just the right time.¹² This was the case when AUC School of Business decided to launch EIP just three

months before the country's uprising against the Mubarak government, one of the most important political, social, and economic events in Egypt's recent history. These events left the nation with a general sense that the private sector and growing entrepreneurial culture will change the lives of Egyptians, a major shift in mindset. It was about time to think creatively and avoid being risk-averse. There are 7.1 million people who work for the government, which leaves a huge population ready for a more robust private sector. Historically, Egypt is not home to many large corporations; it has more SMEs. The key was to produce innovative leaders who will develop more of these startups that will transform the society. The answer lies with a strong, agile, and timely educational system.

Entrepreneurial education is changing how people think, generate ideas, perceive opportunities, promote innovation, and develop alternative solutions. Some people claim that entrepreneurship cannot be taught — that some are born gifted with entrepreneurial skills while others are not.¹³ In reality, people differ according to many influencing factors, and they are all receptive to development and improvement through customized programs supported by proper guidance and mentorship.

CONCLUSION

Investing in human capacities should reflect local market needs in a timely fashion. Such an attitude helps to create job opportunities and to close the gap between vacant opportunities and a growing pool of graduates looking for employment. Egypt's youths are passionate and talented and are experiencing exceptional moments not only in their own lives, but in the history of their country. That country is more than 7,000 years old, but it is still a land of opportunity, and so much of it remains untapped. Thus, it is the right time for AUC School of Business to build on its role in producing and promoting the next generation of innovative and creative private-sector leaders in Egypt and the region. The solution for moving forward — developing the current generation's entrepreneurial capacities and skills and capitalizing on the existing potential — will only materialize through investing in the nation's "oil" of the 21st century, its human capital.

ENDNOTES

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²Kamel (see 1).

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