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Gaining Employee Commitment in Tough Times: Performance and Potential in R&D Today

Steve Boehlke

How can leaders tap the full potential of employees to improve the performance of their R&D pipeline without generating more stress for those already under pressure to deliver? Variations of this question have been asked often in these tough times, when resources are so strained; and it lies not far beneath the surface of many management discussions.

This paper provides guidance for more authentic engagement and skillful inquiry in exploring questions of organizational performance and employee potential. We identify four reasons why there is a "political" aspect to all answers to this question in the R&D environment. We then review four ways of practicing "skillful inquiry" to optimize employee engagement in the process. The political nature of the inquiry about performance and potential, both individual and organizational, will either deepen employee engagement in the process of inquiry or perpetuate more cynicism and distrust. The goal is to inspire by the way one inquires.

"I'm just going to do what they tell me to do, because that's what I am being scored on," lamented a biomedical engineer with more than twenty years experience in her company's basic research function. Ironically, and sadly, as the pressure to deliver new value in R&D increases, the willingness to risk exploring genuinely innovative possibilities is diminishing. Juxtaposed with this prevalent employee attitude, management is asking, one way or another, "Does our R&D pipeline reflect the full potential of our employees?"

Managers working with constrained resources in the current economic environment understandably strive for organizational efficiencies to optimize productivity. The drive for innovation persists but "business processes on steroids" are often management's response to growing anxiety about the very survival of critical markets.

The pressure to sustain short-term profit margins, supporting legacy products and services, discourages more robust, higher risk,

break-through thinking. In this sense, the drive for innovation, near-term, can actually stifle the very creativity it seeks to encourage. Maintaining stability becomes "good enough," perpetuating the status quo but failing to create the business growth required for a sustainable future.

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DIRECTOR'S NOTE

This issue features articles on two timely and important topics: gaining employee commitment in tough times, and organizational transformation in pursuit of innovation. Several important faculty research projects are also highlighted.

The 19th Annual HSATM Conference will be held on June 15, 2010, on another very timely and important topic:

New Thinking for Today's Leaders. Details on p. 12.

Larry Gastwirt

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the question itself. It is subject to misunderstanding and can readily become demotivating, whether it is asked explicitly by management or remains just below the surface of R&D discussions. Either way, the question, "Are they working up to their full potential?" does not go away. The purpose of this discussion is to explore the liabilities of the question itself while at the same time advocating that skillful inquiry can build trust and energize an increasingly discouraged technical workforce. The political nature of any answer to questions of performance and potential is highlighted to encourage more effective R&D leadership behavior, regardless of position.

The "Political" Nature of the Question

Consider the different possibilities for interpreting the meaning of the question itself: "Does the performance of our R&D pipeline reflect the full potential of our scientists and engineers"? As posed this is a "closed" question. A powerful, engaging question does not invite a "yes" or "no" response. How the inquiry is framed makes all the difference between intent and impact.

Whether explicitly raised or more obliquely explored, the question provokes cynicism and defensive behaviors, unless a safe venue for dialogue and even debate is created. The "political" nature of the question emerges when we fail to appreciate the

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multiple perspectives on the meaning of the question itself and lack tolerance for the multiplicity of possible responses it evokes.

"Squeeze more work out of us" is how some employees interpret the intent of the question. In one organization seeking to "maximize the intellectual and business contribution of all employees," many technical professionals inferred that management was finally realizing how the existence of a dedicated "break-through" program had de facto relegated most of the remainder of the

R&D organization to short-term, incremental projects, discouraging more innovative initiative throughout the entire function. Others saw the "political" element at play by hoping that technical leaders would perhaps now have a "seat at the table" when more strategic decisions were being made. And some simply embraced the question optimistically, believing "there is always more potential."

The framing of the question is a political skill. And most any answer to the question will be political. In our judgment it is inevitable that questions of performance and potential will always be political. Political does not necessarily mean "bad" or "sinister" or any of the other pejorative connotations we have come to associate with the word. Wherever people gather, in every enterprise – most certainly in business – a necessary and proper exercise of power and control is required to achieve stated ends, presumably for the common good. This is no less true in R&D, where the drive for discovery and commercialization is more intense than ever.

Over twenty years ago, Peter Block, a respected organizational consultant, published *The Empowered Manager, Positive Political Skills at Work* (Jossey-Bass, 1987). His purpose was to address the dilemma of managers "in the middle" where "re-kindling the entrepreneurial spirit" was imperative. Our associations with the word "political"

inhibits the very inquiry and understanding that Block so effectively undertook more than two decades ago. The quest for innovation and sustainable value requires no less political skill today than it did twenty years ago; one could argue it requires even more! Block writes:

Making changes in organizations in a way that maintains support from those around us is what political skill is all about. ...There is no more engaging and volatile aspect of work life than the dimension of organiza-

tional politics. In most places, people are not comfortable discussing politics openly. ...In fact, the first rule of politics is that nobody will tell you the rules.

Returning to the question of performance and potential, and to the task of skillful inquiry to deepen employee engagement rather than generate cynicism and arouse further distrust, it is essential that one makes underlying assumptions explicit and holds open the possibility of differing perspectives on the very question itself. The inquiry is valuable if not essential. The answers will always be "political."

Four "Political" Factors in Every Answer

Beyond consideration of how the question itself is framed, there are at least four factors which contribute to every answer to the question being inadequate and "political." First, in our experience, the deeper one goes into an R&D organization, the less clarity and shared understanding there is about the criteria for "high performance," whether referring to organizational or individual performance. This is often due to inadequate line of sight to commercialization and business outcomes; but business leaders are not exempt from this quandary either. In a recent conversation with the CEO of a Fortune 500 company, a question about his greatest concern regarding R&D performance prompted the following response: "Tell me what I get from my R&D! What's the true value of R&D? Nobody can answer this question, nobody!" If that's the CEO's response, is it any wonder it's a political question for others in the organization? The need to communicate and validate again and again shared understanding of "success" criteria in a research environment is especially important. There are those who labor diligently for years with little or no recognition or near-term reward for their "failed" efforts.

Secondly, R&D performance, again whether considering organizational productivity or individual effectiveness, cannot be evaluated in isolation from other variables in the larger business enterprise. Factors ranging from resource allocation (e.g. reducing R&D

spend) to over-all business strategy (e.g. choosing to secure current market rather than break into new) to portfolio balance (e.g. near-horizon vs. long-term projects) – these and other factors all impact the assessment of R&D productivity at any given point in time. Furthermore, there are multiple variables which affect an individual's performance (e.g. relationship with one's immediate manager) which are seldom fully explored when management inquires about the functions' performance-at-large. Questions in complex systems seldom if ever have only one answer. "Does the performance of our R&D pipeline reflect the full potential of our talent?" requires skillful inquiry that makes underlying assumptions explicit and thoughtfully considers the position and role of others in the larger system. Furthermore, the assessment of R&D performance is almost always retrospective,

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based on tangible results achieved to date by past management practices. "No problem can be solved from the same level of consciousness that created it," is an oft cited comment of Albert Einstein. Patrick Scaglia, Vice President and CTO of HP's Imaging and Printing Group, recently commented in a discussion about innovation: "Processes are fundamentally a backward thing. Most of the processes are created and have been put in place, managed, by looking backward. They are not designed for some unknown new future. However, rigor (and discipline) are still required for innovation." Business processes are often based more on the stability of past success than the promise of future possibilities.

Proven processes have provided scalable results with new efficiencies. There is, however, an inherent conflict between established ways of working and the need to implement new business models which are

critical to innovation. Innovative business models cannot be derived based on 20:20 hindsight. Performance, both individual and organizational, can be very much inhibited by processes which have been enhanced again and again to the point where their strength has become their very limitation. Discussion of this phenomenon is difficult and can indeed be very "political."

The fourth factor which makes any answer to questions of performance and potential "political" is the reality that human potential is not static or limited. Potential can never be fully captured by some metric. Creating new value is intricately linked with passion, commitment and inspiration – qualities that evoke creativity as well as innovation. That should not keep one, however, from asking the question of how to accomplish more with current resources. The pool of highly skilled technical talent is the most valuable

resource of any R&D function. People grow if nurtured, empowered, and challenged – and so does their potential.

In the midst of an economic downturn, it is easy enough to become compliant, if not complacent. That's the attitude reflected in the comment of the engineer cited in the opening paragraph of this discussion. Professionals will do whatever is required to hold on to their jobs, including keeping their heads down and just working harder. These conditions easily give way to discouragement – feeling there is little one can do to make a difference. Managers who step up and effectively lead in tough times understand and encourage commitment over pure compliance. In a recent discussion centered on these issues, Peter Erickson, Sr. Vice President, Innovation, Technology and Quality at General Mills, stated: "I know people are engaged when they fight for their ideas, when they take the time to

argue with me. I want them to move from obligatory compliance to passionate defiance." Defiance, ironically, can be an expression of commitment. Good leaders understand this.

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Employee commitment is not a sufficient condition for innovation to flourish but it is a necessary one. Those who wish to be market leaders when the economy revives dare not ignore what is required to move beyond compliance to commitment. Good leaders explore and discuss with others what really matters to them and help them to re-ignite their passion. Without such interest on the part of those we respect and maybe even admire, the drive to exceed one's own limits is lost; innovation becomes little more than a company slogan. And the future is merely a prospect reminiscent of a productive past.

To summarize our discussion thus far: the first task in working with the recurring question of R&D performance and employee potential is to uncover the range of assumptions attributed to the question itself. Intent and impact are often not aligned. Furthermore, responses to the question are invariably "political" for at least four reasons: (1) inadequate agreement on what high performance means; (2) systemic variables inadequately considered; (3) reliance on more and more processes to the point of choking innovative initiative; and (4) failure to nurture the unlimited potential inherent in the human spirit to create value and make a difference.

The Power of True Engagement

Scientists and engineers define tomorrow's world today. They are passionate, resourceful, talented professionals whose expertise is most often the result of years of highly disci-

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Responses to questions of performance and potential are often political because:

1. Inadequate agreement on what high performance means;
2. Systemic variables not sufficiently understood;
3. Proven processes given priority over new ways of working;
4. Failure to value the importance of nurturing the human spirit

plined technical training. They are conditioned to excel through discovery and problem-solving. And, they like to be challenged. The question of R&D performance – and the corollary commitment (or lack thereof) of technical professionals to excellence – is valid, necessary, and timely. It is critical for R&D leaders to continually create new ways to challenge and foster the passion of technical professionals.

Chris Mallett, Corporate VP of R&D at Cargill, and his Global Technology Leadership Team, recently asked some 80 Cargill technology directors to study and make recommendations on “core technologies” for the corporation. The “assignment” was new and different because they were asked, in preparation for the meeting, to work in small virtual teams outside their disciplines with other colleagues from around the world. As a result untapped expertise as well as hidden passion was uncovered; these “experts” were engaged beyond their defined roles. Mallett comments:

One of our challenges is to ensure the collective resources of our own talent across the company are properly recognized and engaged. The poster sessions not only energized all our technologists working in different disciplines and businesses; they also provided novel technical insights. We achieved new understanding and commit-

ment not just to critical technologies across our total business, but to one another and our respective business partners.

Managers too easily diminish their effectiveness by asking for “more” without addressing the variables which will actually evoke passionate engagement and sustained commitment from employees. Real leaders know that the creative impetus of scientific discovery requires more than will-power. Managers motivate. Leaders inspire! Neither alone is sufficient in the long run. Both are required for sustainable performance. Ask others what they are passionate about, even when the demand for deliverables dominates! The inquiry itself builds trust and energizes. Without sustained attention to the spirit of any work environment, performance will be short-lived no matter how great the effort to increase innovative productivity.

Engagement is promoted most powerfully by being engaged oneself. Demonstrating, for example, the all too elusive skill of listening can be more motivating, if not inspiring, than all the best-intended “communication” (read: one-way dissemination of information). Everyone has blind spots. Our best intentions often have unintended consequences. This is as true when it comes to engaging employees as any other aspect of leadership. Sometimes we miss the obvious. As one technical manager simply put it: “If (name of R&D executive) would only just take his tie off and walk around the labs a bit, it would make a HUGE difference in morale and have an immediate impact.” Choice follows awareness. We want to expand the range of choices for leaders as they strive to invite and secure the commitment of their talent.

Practicing Skilled Inquiry: Four Ways

As stated at the outset, our purpose is to describe the liabilities of how a question is framed, and given its persistent recurrence, to share ways in which the concern can be addressed in a manner that is not demotivating but inspiring. Managers motivate; leaders inspire. Beyond facilitating skillful inquiry into underlying assumptions embedded in the question itself, leaders need to

work creatively to actively model innovation as well as engagement in their efforts to foster higher performance. To encourage technical professionals to stretch for the promise of the future through their discovery and development work, we have found the following four practices to be especially valuable to leaders and easy to implement for the organizations they serve. These practices, in our judgment, go beyond the usual political pitfalls of always pushing for more, to acquiring new insight into the untapped potential of R&D employees. While certainly not exhaustive of the possibilities, these practices have been validated as successful in engaging employees in more powerful ways.

Four ways of practicing skilled inquiry:

1. Listening Posts
2. Cascading Conversations
3. Skip-Level Meetings
4. “Barrier-Busting” by Managers

Listening Posts define a set time and place where, according to a pre-established protocol, managers listen rather than talk with a cross-section of employees. Sometimes the simplest of practices are the most challenging. Creating a “safe environment” where others feel acknowledged and heard is not a practice that most managers are particularly adept at - the number of technical presentations they sit through notwithstanding. While aware that critical knowledge often lies closest to the practitioners at the lab bench, admonitions to “speak up” seldom result in the most valuable insights being disclosed. This is especially true when inquiring about employee engagement and commitment. Time and attention is a rare commodity in a stressed work environment. Leaders who recognize the ROI of listening achieve exceptional advantage when it comes to securing employee commitment.

Launching a series of listening posts may

well be met with indifference if not doubt. In one organization, skepticism was most prevalent among senior managers as much or more than all the rest of the employees. The head of the labs announced he was convening a series of lunch-time listening posts in the 12th floor boardroom once a month for NINE months. Concerns about opening the boardroom to a cross-section of employees from all levels of the organization, including technical and administrative assistants, became outright political, if not blatantly elitist, in the senior ranks.

An imaginative storytelling exercise and a focused inquiry about when one felt most alive on the job were the only prompts provided in this particular series of meetings. The head of the labs collected wisdom and inspiration from some 200 employees, which he acknowledged and shared in subsequent all-employee meetings. And he was inspired! His articulation of a new vision for the R&D function was informed and accelerated by these meetings. A year later senior managers were convening listening posts of their own in different segments of the organization. Eventually senior managers were modeling engagement, not surveying it. Listening and learning were the skills that served to enliven the organization while enrolling employees in a new sense of what was possible.

Cascading Conversations focus on involving employees in assessing the over-all performance, engagement, and commitment of the talent that resides in an organization. To be clear, the intent is not to address matters related to individual performance appraisal but rather to provide a means by which leaders can take a barometer reading of the vitality of an R&D organization's most valued resource, its people. A pre-determined set of questions about priority concerns frames the inquiry. Inhibitors to creativity and innovation as reflected in leadership practices and behavior, for example, might be explored. Interviews are conducted with an agreed-upon number of employees, representing a cross-section of the organization. The information and insight gathered are presented to the leadership team with the individuals interviewed invited to partici-

pate. An extended dialogue is facilitated for understanding in preparation for launching the cascading conversations.

All those initially interviewed are then invited, as the next step, to convene a conversation with a small group of employees of their own choosing – any configuration or grouping that they deem valuable – to continue the dialogue and cascade the conversation. Specific guidelines are provided for facilitation of the cascading conversation as well as agreed-upon protocols for reporting who was engaged in all subsequent conversations. Attention is given to preserving the participants' trust and anonymity when reporting to senior leadership. Six to eight weeks later all those who have convened cascading conversations meet once again with the senior leadership team to discuss

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what they are discovering and learning together after talking with some 200 employees.

While similar to focus groups that might be conducted by professionals, internal or external, cascading conversations are owned and facilitated by the employees themselves. The senior leadership team's behavior empowers others to launch new and different conversations in the organization. For example, in one organization an inquiry about inhibitors to creativity and innovation uncovered a fear of speaking up and the consequences of deviating too far too quickly from standard research protocols. The means are well-aligned with the intent; the inquiry itself encourages employee engagement and initiative. The very method of inquiry deepens trust and uncovers new possibilities.

Skip Level Meetings are successful only if carefully planned. It is critical to minimize the threat to managers whose direct reports are invited to talk with leaders one or two levels higher in the organizational hierarchy without the intermediate managers being

present. In some organizational cultures, the respect for delegated authority and hierarchical management is so strong that disrupting that chain in any way is considered anathema. Even when scheduled and convened, such meetings may nevertheless elicit only "conditioned responses" to what is perceived as management's position. There are some simple but essential tactics to preserve trust and build credibility when employees are invited to dialogue directly with leaders several levels above them in the organization (without their managers present). These include: (1) inviting participants to talk with one another to ease tension and break the ice – numerous techniques for doing so can be introduced throughout the meeting by the senior leader convening the meeting; (2) using a brief but

focused anonymous feedback form at the conclusion of the meeting to test for candor and openness; (3) assuring that feedback loops are complete and that the absent managers are briefed both pre- and post-meeting on intent and outcomes.

The use of video-taped interviews to record, review, and renew employee engagement is a creative and helpful way to "jump-start" skip-level meetings. As unlikely as this may seem as a means to foster open communication and deepen employee commitment, paradoxically, if handled properly, it is a powerful catalyst for new insight and change. Input is captured on video-tape from invited participants, in private, individual conversations. For example, after interviewing first-line supervisors and project leaders, edited video clips are then used in the skip-level meeting to illustrate a range of responses and concerns to one or more specific issues. Their use demonstrates significant trust on the part of those recorded as the meeting launches and encourages others to be candid and open. The recorded documentation, only with the explicit permission of those interviewed, can then be subse-

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quently used in dialogue with direct managers as well as others. Again, the means or the methodology reinforces what the inquiry is about – engaging employees and deepening their commitment to optimize organizational performance.

Barrier-Busting by Managers is a difficult behavioral adjustment which many leaders do not know how to achieve. One of the most powerful indicators that management can give to truly help employees realize their full potential is for managers to be attentive to removing the obstacles or barriers technical people encounter when doing what they need and love to do. Rather than relentless demands for delivering “up” on new deliverables and new deadlines, managers practice attentiveness to releasing employees to do what they must accomplish to deliver on their goals. This requires substantial inquiry and discussion of management “blind spots;” often the rhetoric is present but the behavior is prominently lacking with many senior leaders. This requires managers to balance burgeoning demands and last minute requests with a clearly defined strategy against which stated objectives and targets are prioritized. Protecting your most valued technical talent from relentless management requests is a skill, a political skill, which can be learned. When practiced, it elicits powerful results.

There are many ways to do “barrier-busting.” One example: it’s all about meetings - scheduled, extended, postponed, curtailed, ad hoc convening. The most frequently recurring frustration of technical professionals is not only the amount of time spent in meetings, but also the unpredictable and continually variable way in which meet-

ings are convened (or not). Without realizing the impact, senior management is often disrespectful though largely oblivious to what it feels like to be continually “on call,” as one technical leader described his feelings. It’s difficult for many managers to imagine that productivity would indeed increase if there was more regard for the respective scheduling priorities of different segments of the organization. This is the issue that one leadership group tackled - the always burdensome issue of time management, particularly as related to convening and adjourning meetings in a predictable way. More focus on the concept of “Leadership as Facilitation” can bust barriers by establishing new norms and meeting protocols throughout the organization.

Listening Posts, Cascading Conversations, Skip-Level Meetings, Barrier-Busting by Managers – these are four ways for leaders to model the kind of engagement they seek to assess, conducting the inquiry in a manner that is congruent with the desire to foster deeper commitment and more passionate engagement with the challenges at hand. The benefits of such skilled inquiry are numerous, including acknowledgment of the political implications of the question itself, **“Does the performance of our R&D pipeline reflect the full potential of our talent?”**

By engaging in skilled inquiry, organizations have identified outdated protocols and processes which hindered decision-making. They have created more robust feedback loops which identified, for example, substantial gaps in how the R&D pipeline was managed. One organization realized that productivity at the early stages of the R&D pipeline was accelerating in a way that

was, in fact, causing a bottleneck later in the pipeline where resources were severely stressed and strained. Failure to inquire systematically into the drivers for high performance resulted in disequilibrium in the system that was only being perpetuated. Variables in the system were identified and addressed because management thoughtfully inquired about what was de-motivating and stressing employees. Productivity became more balanced across the span of the research and development life-cycle.

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Our intent in this paper is not to provide a formula for generating and assuring high performance in a specific R&D organization. Rather we focus on the political nature of the inquiry itself and how it dictates responses that will either deepen employee engagement in the very process or disrupt it further, with the risk of compromising further dedication to the tasks at hand. While the question will always remain, the answers will vary. A leader must be willing to probe beneath the clichés and comfortable behaviors to reach for innovation, balancing perspiration with inspiration. The goal is to invite passionate commitment beyond compliance. Attempts to encourage employees to be more innovative as well as productive inevitably bump up against the needs for direction and control in a complex business environment. The political skill required to optimize R&D performance in this environment requires leaders who inspire by the way they inquire. ■

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Transformational Strategy: Leading Innovation in a Fast-Changing Global Organization

John Bobb

This article describes an initiative by Alcatel-Lucent, a company with a long and admired history of innovation, to accelerate its pace of innovation during a period of rapid and disruptive industry change. I have a particular interest in Alcatel-Lucent as I became part of one of its forerunner organizations, Lucent Technologies, when my company, Ascend Communications, was acquired by Lucent in 1999. In their quest for growth, Lucent acquired Ascend, along with 37 other companies, within a four year time span during the mid to late 1990's. It was a fantastic time to be in technology, as growth seemed boundless. However, the acquisition and integration of companies is risky and difficult during even the best of times. Undertaken at this scale at the brink of the telecom bubble collapse, the challenges to successful integration of 38 companies and their innovative ideas were nearly insurmountable.

In the face of a radically changed global business environment, Alcatel-Lucent's subsidiary in Belgium has taken the lessons learned and moved forward, introducing a new approach that emphasizes capitalizing on the innovative ideas of individuals in the company. The idea was to give individual contributors the tools to foster their entrepreneurial spirit and break down the silos and managerial boundaries that so often stifle innovation. Alcatel-Lucent provided their individuals with guidance and the right connections to successfully exploit their ideas, at the same time creating business opportunities that would benefit the company.

It has long been recognized that innovation is key to the success of Alcatel-Lucent. Alcatel-Lucent's Bell Labs has been in the forefront of innovation for decades, with many leading minds in technology innovation. However, it takes more than a creative laboratory to make innovation successful. It takes the diversity of thought and action from individuals in the company as a whole, to move ideas and concepts to commercial reality, through business planning, engineering, manufacturing, marketing and distribution in a global market place. Alcatel-Lucent Belgium recognized that major changes would have to occur in the company in order

to create an environment that encouraged involvement from all levels, provided the ability to work effectively across functional boundaries, and fostered the re-emergence of the entrepreneurial spirit it once had.

Many ideas that were not being capitalized on were "under the radar" of company

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decision-makers, as there were few if any channels through which an individual could relay a new concept or business idea up to the management team. Silos within the organization often prevented communication and collaboration between groups, hindering a team effort in formulating new ideas. Alcatel-Lucent was a powerhouse for technology innovation, but with large competitors like Cisco Systems and Ericsson they had to find new ways to create and develop ideas to stay ahead. Somehow the innovation process had to be owned by every employee, going beyond the research labs,

pulling all individuals in the company in the same direction from innovation to implementation. It was important to create a sense of urgency, to bring people out of their comfort zones and be motivated to collaborate.

A key element of Alcatel-Lucent's change process was to create an environment that would encourage risk-taking. They wanted to find hidden talents within the company and redeploy them into new areas of the company, encouraging entrepreneurship along the way. Alcatel-Lucent wanted to constantly move the borders, creating new networks of people and relationships.

The change process began with the creation of an Innovation Board, consisting of the CEO and the leaders of all the business units in Alcatel-Lucent Belgium. It was recognized that a powerful guiding coalition of

leaders was necessary in order to achieve the level of buy-in required of employees. Alcatel-Lucent knew that to be successful, the leaders had to be involved throughout the change process, and they had to champion the change with enthusiasm.

Next to be launched was the Alcatel-Lucent Innovation Task Force. Its mission was to create new opportunities for the company by connecting the talent and ideas of people throughout the company. This team helped to communicate the new company vision. The Innovation Task Force promoted the program through company meetings,

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brochures and the Intranet. They created a website where ideas could be posted and opinions expressed about the ideas. The website was open to everyone, creating an environment that transcended traditional organizational boundaries, allowing everyone to speak freely about their innovative ideas. By widening the circle of involvement, connecting people and ideas, creating communities for action and embracing democratic principles, Alcatel-Lucent was embarking upon a new paradigm to help

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them be more successful in today's complex business environment.

Alcatel-Lucent's first attempt at fostering innovation through this system tried to promote the collective effort of individuals in expressing their ideas. The Innovation Board encouraged ideas by conducting a contest in which the prize was a car. Through the website 150 ideas were presented in five months. All ideas were reviewed and one was selected as the winner. At first this initiative was deemed a success, but ultimately the leadership team discovered that using a prize in this manner was a bad practice. There was one winner and 149 unhappy losers, the program was not sustainable, and none of the top 11 ideas made it to market.

The process clearly had to be re-evaluated. The Innovation Board had to get people's involvement without dangling a prize in front of them, and they had to establish better criteria for project selection. The ideas had to become more than just ideas. The ideas had to be of significant value, and it had to be demonstrated that they had the potential to be developed into meaningful, profitable ventures for the company. Ideas had to align with the core market of the company, or align with a market segment that the company envisioned pursuing. The idea needed to be achievable as a business venture within a reasonable timeframe. Since an idea that becomes a successful

venture has to have the inputs of many different talented people along the way to commercial reality, ideas had to be accompanied by full business plans that the company could implement.

What came out of this re-evaluation was the Entrepreneurial Boot Camp, a program that consolidated the resources needed to support the pursuit of innovative ideas and to create business opportunity plans from those ideas. Through proposal development,

selection of plans, funding and securing of venture capital, people now had the opportunity to express their ideas on a level playing field and, potentially, see them become a new business within the company or with external partners.

The Entrepreneurial Boot Camp addressed the shortcomings of the first attempt. Clearly defined criteria were established for ideas

Silos within the organization have been successfully breached, and this has created new networks of employees that can do more.

to be considered. Teams were encouraged to be formed through what was termed a "dating event:" a five minute presentation by each person with a new idea and a gathering in the lunch room to talk and collaborate, leading to the formation of diverse teams to carry the ideas to the next level. Coaches from the executive management level were provided to the teams to mentor them and help form connections to the right internal and external resources and encourage collaboration. Alcatel-Lucent also incorporated business school professors into the Innovation Boot Camp process, to teach business plan development principles and to share personal wisdom from their own past experiences.

The Entrepreneurial Boot Camp was not for the faint of heart; there had to be passion for the idea and a commitment to see the idea through the review and development process. Participants had to commit to a three-weekend experience. During the first weekend they were trained in developing a successful business plan, new venture creation, and opportunity development. In the second weekend the training covered entrepreneurial marketing and new product growth. The final weekend moved into legal, finance and intellectual property rights. The goal was to give participants the tools required to create a business case for their idea, through 80% coaching and 20% theory.

As ideas moved through development in the Entrepreneurial Boot Camp, the participant teams had to present their new business plans to a jury. The team's speaker had just 15 minutes to present the case to the CEO, CTO, and CFO of Alcatel-Lucent Belgium, five venture capitalists, and approximately 150 employees. Being fully prepared and passionate about their ideas was critical. In this stage, the teams presenting the new business opportunity received high exposure to top management, and were able to con-

nect with them and share information. This is important in order to develop trust between employees of the company and the management team, and to break down the walls that inhibit innovation and entrepreneurship.

Once a business opportunity is selected, it must go through an incubation period during which a fast prototype is developed so that something can be shown to potential customers and where the opportunity is further validated within the targeted market segment. As a result, the plan may be modified to increase the probability of its success.

Not every idea brought into the Entrepreneurial Boot Camp is accepted - in

fact only one out of five is. There thus had to be a post-boot camp feedback process, to help the teams understand that it is the journey – the learning experience – that is most important. Being prepared for the high probability of not making it to market is tough, and Alcatel-Lucent does not want to see their people discouraged from the results. Hence, feedback is provided to each team as to why their business plan did not make it. They are encouraged to improve the plan on their own. This process helps to insure that they will try again, and that others will follow.

The program is still young, but the results so far are encouraging. In the first two years since inception, two projects have been developed into new market opportunities and several others were transferred directly to existing product groups. Expansion of the program is considered critical to the success of Alcatel-Lucent, and they have decided to expand the Entrepreneurial Boot Camp concept from Belgium into other locations. The Entrepreneurial Boot Camp is now also run in Paris, France, where they have teamed up with local business schools to help create the same type of environment that has been so successful in Antwerp, Belgium. In September of 2009, the first Boot Camp was conducted in North America. The next countries slated for Boot Camps are China and India.

As Alcatel-Lucent expands the program into other countries, they are taking into account local and cultural differences and reflecting those differences in the program, customizing the program for each country to insure

acceptance of the program and to capitalize on the wealth of knowledge that others from different cultures have to offer. They also have to determine market differences, as every country has unique market opportunities that Alcatel-Lucent can capitalize on or must be sensitive to. It is also important to know what the scale of the program should be and the cost of the program for each of the new areas they move into in order to insure successful implementation.

In addition to spreading the program internally, Alcatel-Lucent has promoted the best practices of the program to some other companies in order to explore the possible setup of joint Boot Camps in the framework of collaborative innovation. Currently Johnson & Johnson, the Picanol Group, Merck Serono, Swift and others have adopted similar practices.

There are many theories about organizational change and how it should be done, and there are many pitfalls along the way that can destroy even the most sincere attempts to change an organization. Alcatel-Lucent in Belgium, in an effort to change the culture and business strategy of the global Alcatel-Lucent, has created an incredible innovation program. Management has fully bought into the program and is intimately involved in every step of the process, showing full commitment to the employees of the company. They have been able to bring to light innovative ideas of everyday folks in the company, they have created synergies through collaborative meetings, and ideas are becoming business plans that can be evaluated for their potential to grow the company. Silos within the organization have been success-

fully breached, and this has created new networks of employees that can do more. They have successfully crossed difficult global boundaries in their quest for innovative ideas and have been able to apply globally an approach that is sensitive to the cultural and market aspects of each region.

If the passion of Dr. Guido Petit, Director of the Alcatel-Lucent Technical Academy in Belgium is any indication of how people within the company feel, Alcatel-Lucent's strategy will be successful. Their initiative will offer a new model of organizational change for other companies. Dr. Petit said you must be an evangelist when creating change within a company. You can get a feeling for Dr. Petit's passion by watching the videotape of his presentation, Innovation Leadership in a Fast-Changing Global Organization, given at the Eighteenth Annual Conference of the Howe School Alliance for Technology Management, Leading in a Changing Environment, at <http://howe.stevens.edu/video/petit-hsatm-2009/>

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This overview description of one of Alcatel-Lucent's innovation initiatives is based upon an interview with Dr. Guido Petit, Director of the Alcatel-Lucent Technical Academy, August 6th 2009. The author is grateful to Dr. Petit for permission to publish this description of the process and to use it to formulate his own views of the program. ■

About the Author:



John Bobb (jbob@syncns.com) is Vice President of Operations for Synchronized Networking Solutions, a Native American-owned company dedicated to providing integrated telecommunications and information network products and services. He has been in various roles in network engineering and operations for over 18 years, with responsibility for network operation centers and on-site engineering services. Prior to joining Synchronized Networking Solutions, John was with Lucent Technologies, which acquired his previous organization, Ascend Communications, in 1999. John has a special interest in fostering entrepreneurial ideas and innovation through collaboration with personnel and through partnerships with other companies.

Roundtable Meeting TakeAways

The November Roundtable meetings in recent years have been devoted to providing progress reports to HSATM Partners on selected research being conducted at the Howe School. At this meeting we heard from Professors Lombardi, Patanakul, Lynn, and Bullen. Brief summaries are provided below; the speakers' slides are posted on the HSATM web site at <http://howe.stevens.edu/research/hsatm/past-events/2009-roundtable-nov>

Selected Faculty Research Presentations Wednesday, November 18, 2009

Social Networking as a Tool in Education and Organizational Development

Drs. Donald Lombardi
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201- 216-5661 and Tal Ben Zvi

Lombardi and Ben Zvi are studying how social networking can act as a primary education tool and catalyst in progressive organizational development. Their focus is on teaching the emergent work force population the ways in which organizations – specifically community-driven organizations in healthcare and human services – conduct their business, using an array of technology-based communication devices ubiquitous in adolescents' daily lives. In addressing both the manner in which this focus population learns about potential career paths, as well as why a formidable deficit of knowledge about healthcare and human services careers exists, the objective of this effort is to provide a new system, using current and emergent social networking technologies, for meeting the gaping needs of work-force shortages in these critical areas.

Their research, which received seed funding from an HSATM grant in 2009, is titled "Innovating an Objective-Driven Social Network Learning Game Simulation to Develop Future Healthcare Leaders." The framework for their research was presented, along with the strategy for moving forward.

Overview of the Problem: American healthcare suffers from human capital deficits in virtually every leadership area, from medicine to finance, nursing to community relations, and business operations to rehabilitation services. Most high school and college students believe that the only people who work in healthcare are physicians and nurses; as a result, there is a dire lack of

interest, and subsequently a paucity of professional talent, at the entry level of healthcare management and leadership.

Solution Synopsis: Our target group—adolescents of both genders between the ages of 12 and 20 – almost universally enjoys sophisticated, interactive computer games, and more importantly, are more adept at computer-assisted instruction than any previous generation. The development of an interactive video game which provides instruction on the careers in healthcare, potential career and educational pathways, and engaging social leadership situations, can help inspire interest and practical application learning in this important sector of the US economy.

Proposed Program Components:

- Research and development of a simulation/case study
- Production of a video interactive platform game
- Conduct of the simulation with three groups (high school, vocational school and college students).

While focusing on healthcare, this project clearly has relevance to other industries as well, since it relates broadly to organizational development, human capital, and technology.

Key Determinants of Effectiveness in Project Portfolio Management

Dr. Peerasit Patanakul
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Although project portfolio management (PPM) has been practiced for decades, many organizations still struggle with the effectiveness of their PPM processes. Many do not define what PPM effectiveness is,

and not much research has been conducted to provide guidance. Measurements of PPM effectiveness have yet to be developed and key factors contributing to PPM effectiveness have yet to be identified. The lack of such guidance may have practitioners continuing with PPM approaches that may not have the desired impact on business results.

The objective of this research, which began with an HSATM seed research grant in 2008, is to investigate the PPM practices of organizations in different business contexts in order to discover the key determinants of, and the measurement of, PPM effectiveness. This research will go beyond traditional PPM research by investigating the potential impact of executives' strategic decision-making processes and organizational factors (e.g. organizational culture, degree of portfolio centralization, and PPM learning and education) on PPM effectiveness. The results should help practitioners implement PPM practices appropriate for their business contexts, cultivate PPM effectiveness, and measure such effectiveness.

Preliminary findings from study of a major telecommunications company indicate that a formal and information-based strategic planning and strategic decision-making process has an impact on PPM effectiveness. Objective-oriented executive governance based on measurable strategic outcomes is also important. Give & take, trust & honesty, and extensive communication are the important cultural values that are shared across the organization. Project selection and resource allocation are unbiased and strategy-based. The company also has a structure that supports project management and has formal project management and documentation processes that support communication and timely-decision making.

These factors impact PPM effectiveness and in turn, a company's performance.

Keys to Creating Technical "Blockbusters"

Dr. Gary S. Lynn

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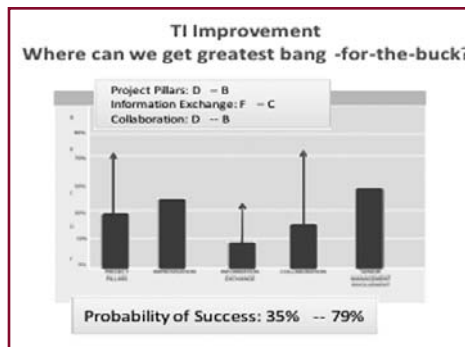
Gary Lynn has spent a decade researching the critical practices for creating blockbuster new products. The term "blockbuster," as used by Lynn and his co-author Dick Reilly in their book "Blockbusters: The Five Keys to Developing Great New Products," refers to those new products and services that alter the future of a company, lead to entirely new families of products, or possibly even usher in a whole new industry. When last reported on to HSATM Partners in 2003, the research embraced some 700 new product launches. The data base has since been expanded to over 1,000 new product/service teams and includes some of the most successful products ever launched, including the Nintendo Wii, IBM PC, Black & Decker Dustbuster, Polycom Soundstation and many others.

The earlier research found that five critical practices determined success in coming up with blockbuster new products:

- **Clear and stable "Project Pillars":** Blockbuster teams stayed on course by following a clear vision of the product attributes – specific goals for the product, including time targets – which the team had to deliver. These were defined early on by senior executives and/or team members.
- **Improvisation:** Blockbuster teams did not follow a structured path to market, such as a stage-gate process. Instead, they were flexible, trying many different ideas, getting prototypes out to customers quickly, and iterating to reflect feedback until they developed a version that "stuck" with their customers.
- **Effective information exchange:** Teams used many formal and informal methods to exchange information, including frequent video conferencing and use of "war rooms" papered with Post-it notes.
- **Collaboration under pressure:** Blockbuster teams focused on goals and objectives, as opposed to interpersonal differences. They were not especially concerned about building friendships, but they built coherent teams.

- **Senior management involvement:** The project team had the full cooperation of the highest level of management. Senior managers were involved intimately with every aspect of the project, or they made it clear by their actions and their "management by walking around" that they were fully behind the project, and then empowered the team with the authority it needed.

Doing all five practices well was critical to successfully creating a blockbuster. The five essential practices were present at high levels on the blockbuster teams, and at relatively low levels on the teams that were unsuccessful or only moderately successful. Although time did not permit discussion, the last five slides of Gary's presentation reviewed the importance of the five practices and how firms could get the greatest "bang for the buck" in improving their technical innovation.



Gary discussed how the technological innovation process progresses through several phases: Invention, Exploration, Focus, Traction and Leverage. Based on his studies, Gary presented "Zones of Acceptability" for successful innovations, in terms of time and money spent as a function of time. By applying such benchmarks, he concludes that the innovation process can be managed to a reasonable timetable, and this timetable can be estimated at project outset.

Workforce Trends in Information Technology

Dr. Christine Bullen

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Chris Bullen has been a member of the IT Workforce Research Team, an ongoing research project sponsored by the Society for Information Management (SIM). The research seeks to define the IT skills and capabilities that organizations desire to retain in-house, source externally, and acquire in entry and mid-level hires. This research involved over

230 organizations from around the globe and focuses on IT workforce trends and how they are affected by such forces as global sourcing, pending baby-boomer retirements and low enrollments in IT-related university programs. The first phase focused on clients (those buying services) and the second focused on providers (those selling services).

The presentation discussed a number of issues that came out in the research, issues that are sometimes conflicting and often controversial:

1. The increasing trend toward global sourcing of IT work
2. Distinct differences in the capabilities retained internally and sourced externally by firms
3. Mismatches between client needs and provider resources
4. A consistent desire for non-technical, as well as technical capabilities in new hires
5. Disappointment that graduates are often missing skills desired most in the marketplace
6. A lag in university responsiveness to the needs of the marketplace

The conclusion is that a set of requisite skills – including not only foundational technology skills and project management capabilities, but also business and relationship-management capabilities – are emerging that all IT professionals will need for a successful career, whether employed by clients or providers and regardless of geography. Previous research has characterized the person possessing this pattern of skills as a T-shaped person – someone with a set of skills in an area of deep specialized knowledge, as well as a set of broader, generalized business skills.

While conducted around IT, this research has broad applicability to other functions. The need for T-shaped people applies to any functional area, e.g. finance, marketing, R&D, in view of the complexity of managing in today's fast-changing world. Specialists have less value to organizations than those who combine general business knowledge with their areas of specialization. Organizations are relying on every manager to contribute to the competitive success of the firm, and that requires a broad set of skills. In the IT area this represents a fundamental change in what it takes to succeed. ■

INFORMATION AND UPCOMING EVENTS

Nineteenth Annual HSATM Conference: New Thinking for Today's Leaders

Tuesday, June 15, 2010, 8:45-4:45, Babbio Center
Stevens Institute of Technology, Hoboken, NJ

The process of leadership is undergoing profound transformation, driven by the powerful forces that are re-shaping the business environment. Among these forces are the shrinking of the world due to the revolution in communications; an increasingly virtual work environment; the increasing diversity of the workforce that has introduced a wide array of differing values, perspectives and expectations; the explosion of cross-cultural engagements as companies establish their services across vast geographic spaces – all of which, among others, are overlaid on the most severe disruption to the world economy since the Great Depression.

Fortunately, significant advances in contemporary research and practice are providing new approaches to help forward-thinking leaders contend with the daunting challenges. The 19th Annual HSATM Conference will examine the practical implications of these developments for leaders at every level. The presentations will describe how the best leaders apply the new thinking, especially with regard to decision-making, strategy formulation, change and transformation. Attendees will take away many practical insights into how leaders, at every level, should be thinking as they confront today's complexities and uncertainties.

Presentations:

- **Leading Successful Change: Creating Competitive Advantage Instead of Chaos**
Dr. Kevin Peters, President, Strategic Partners Management Consulting Group
- **The New Role of Leaders in Managing Knowledge**
Jim Lee, Practice Leader, Knowledge Management Advisory Services, APQC (American Productivity and Quality Center)
- **Leadership and the New Paradigm: Winning across Cultures**
Dr. Kirpal Singh, Director, Wee Kim Wee Center and Associate Professor of Literature & Creative Thinking, Singapore Management University
- **Lessons for Leaders: Driving Organizational Transformation under Pressure**
Tom KIELTY, CEO, Aequus Technologies Corporation
- **Systems Thinking – A Powerful Approach to Organizational Leadership**
Tom Castaldi, Director of Science and Technology Programs, Navmar Applied Sciences Corporation

The Conference will appeal to those leading organizations of all sizes and disciplines: operations, marketing, business development, project management, HR, technology – in short, to everyone concerned with leadership, at any level of the organization.

For abstracts of the presentations or to register, go to the Conference web page at <http://howe.stevens.edu/pages/hsatm-conference-2010/>

Further information: Sharen Glennon (201-216-5381 or Sharen.Glennon@stevens.edu).

HSATM INFORMATION

For further information on HSATM activities or to submit an article, contact Dr. Lawrence Gastwirt at **212-794-3637 • Lawrence.Gastwirt@stevens.edu**

Visit the HSATM website: <http://howe.stevens.edu/research/hsatm/>

To download articles from past issues:

<http://howe.stevens.edu/research/hsatm/download-newsletters/>

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