Responsive Organizational Dynamism:

Managing Technology Life Cycles using Reflective Practice

Dr. Arthur M. Langer

Introduction

This paper focuses on defining the role of new technologies in affecting organizational behavior and the role of technology functions within organizations. What are the generic aspects of technology that have made it an integral part of strategic and competitive advantage for many organizations? How do organizations respond to these generic aspects as catalysts of change? Furthermore, how do we objectively view the role of technology in this context, and how should organizations and individuals adjust to technology's short-term and long-term impacts?

Technological Dynamism

To begin with, a new technology (an invention, an automation, etc.) can be regarded as a variable independent of others that contribute to the life of a business operation. It is capable of producing an overall, yet distinctive, effect on organizations: it has the unique capacity to create *accelerations* of events in an *unpredictable* way. Technology, in its aspect of unpredictability, is necessarily a variable; and in its capacity as accelerator – its tendency to produce change or advance -- it is dynamic. I contend that technology, as a dynamic kind of variable, can be tapped to play a special role in organizational development. It can be pressed into service as the dynamic catalyst that helps bring organizations to maturity in dealing not only with new technological quandaries but with other agents of change as well.

Organizational change generates new knowledge, which in turn requires a structure of learning that should, when managed properly, result in transformative behavior, supporting the continued evolution of organizational culture. Specifically, technology speeds up events such as the expectation of getting a response to an email, and requires organizations to respond to them in ever-quickening time frames (Bradley & Nolan, 1998). Such events are not as predictable as what individuals in organizations have experienced prior to the advent of new technologies – particularly with the meteoric advance of the Internet. In viewing technology then as a *dynamic* variable, as one that requires of organizations systemic and cultural change, we may regard it as an inherent, internal driving force – a term I will call *technological dynamism*.

DIRECTOR'S NOTE

There are many examples of how the introduction of new technology has altered a company's fortunes, providing an advantage that propels it past its competitors. If radical enough, new technology can rewrite the "rules of the game," reshaping the whole structure of an industry.

The introduction of new technology can play an important role within the organization as well, by affecting organizational behavior. Dr. Langer examines this role in detail. He postulates that technology – which by its nature produces change – has a special role to play in changing organizational behavior, culture and structure. It can catalyze the evolution and maturation of the organization, not only in dealing with new technological issues but in coping with other change agents as well.

We are pleased to publish this contribution by Dr. Langer, and plan to have him present a seminar in the fall on his concept of Responsive Organizational Dynamism.

Larry Gastwirt

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Responsive...

Dynamism is defined as a process or mechanism responsible for the development or motion of a system. *Technological Dynamism* characterizes the unpredictable and accelerated ways in which technology, specifically, can change strategic planning and organizational behavior/culture. This change is based on the acceleration of events and interactions within organizations, which in turn create the need to better empower individuals and departments. Another way of understanding Technological Dynamism is to think of it as an internal drive recognized by the symptoms it produces. The new events and interactions brought about by technology are symptoms of the dynamism that technology manifests. The next section discusses how organizations can begin to make this inherent dynamism work in their favor on different levels.
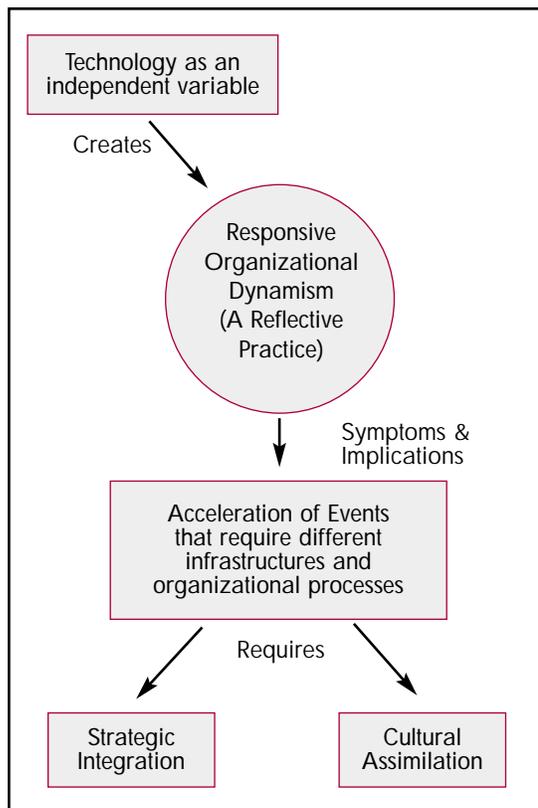

FIGURE 1. Responsive Organizational Dynamism

Responsive Organizational Dynamism

The Technological Dynamism at work in organizations has the power to disrupt any antecedent sense of comfortable equilibrium, or bring an unwelcome sense of stasis. It also upsets the balance among the various factors and relationships that pertain to the question of how we might integrate new technologies into the business – a question of what we will call *Strategic Integration* – and how we assimilate the cultural changes they bring about organizationally – a question of what we will call *Cultural Assimilation.* Managing the dynamism therefore is a way of managing the effects of technology. I propose that we address these organizational ripples, these precipitous events and interactions, in specific ways at the organizational management level using reflective practices that need to be applied dynamically.

The set of integrative reflective practices and responses to the challenges raised by technology is what I am calling *Responsive Organizational Dynamism* (ROD). This concept requires that we elaborate two distinct categories that present themselves in response to Technological Dynamism: they are *Strategic Integration and Cultural Assimilation.* Figure 1 diagrams the relationships.

Strategic Integration

Strategic Integration is a process that addresses the business-strategic impact of technology on organizational processes. That is to say, the business-strategic impact of technology requires immediate organizational responses. Strategic Integration therefore recognizes the need to scale resources across traditional business-geographic boundaries, to redefine the value chain in the life cycle of a product or service line and generally to foster more agile business processes (Murphy 2002). Strategic Integration, then, is a way to address the changing requirements of business processes caused by the sharp increases in new technology innovations. Evolving new technologies should always be catalysts for competitive initiatives and new investment opportunities. Thus, there is a dynamic business variable that drives the need for technology departments to be capable of greater flexibility and of exhibiting greater integration with all business operations.

Historically, organizational experiences with technology investment have resulted in two phases of measured returns. The first phase often shows negative or declining productivity as a result of the investment; in the second phase we often see a lagging of, though eventual return to, productivity. The lack of returns in the first phase has been attributed to the nature of the early stages of technology exploration and experimentation, which tend to slow down the process of organizational adaptation to technology. The production phase then lags behind the organization's ability to integrate new technologies with its existing processes.

Another complication posed by Technological Dynamism via the process of Strategic Integration is a phenomenon we can call "factors of multiplicity"–what happens when several new technology opportunities overlap and create a myriad of projects that are in various phases of their developmental life cycle. Furthermore, the problem is compounded by lagging returns in productivity, which are complicated to track and to represent to management. Thus it is important that organizations find ways to shorten the period between investment and technology's effective deployment (Lucas, 1999). Murphy (2002) identifies several factors that are critical to bridging this delta:

1. Identifying the processes that can provide acceptable business returns
2. Establishing methodologies that can determine these processes
3. Finding ways to actually perform and realize expected benefits
4. Integrating technology projects with other projects
5. Adjusting project objectives when changes in the business require them.

Technology complicates these actions, making them more difficult to resolve – hence the need to manage the complications through considered reflection about their impact. To address these compounded concerns, Strategic Integration can shorten life-cycle maturation by focusing on the following integrative factors:

• Addressing the weaknesses in management organizations in terms of how to deal with new technologies and how to better realize business benefits.

• Providing a mechanism that both enables organizations to manage accelerated change caused by technological innovations and that integrates them into a new cycle of processing and handling change.

• Providing a strategic learning framework whereby every new technology variable adds to organizational knowledge, particularly using the learning concept of "reflective practices."

- Establishing an integrated approach that ties technology accountability to other measurable outcomes using organizational learning techniques and theories.

In order to realize these objectives, organizations must be able to:

- Create dynamic internal processes that can function on a daily basis to deal with understanding the potential fit of new technologies and their overall value to the business

I contend that technology, as a dynamic kind of variable, can be tapped to play a special role in organizational development. It can be pressed into service as the dynamic catalyst that helps bring organizations to maturity in dealing not only with new technological quandaries but with other agents of change as well.

- Provide the appropriate discourse to bridge the gaps between technology and non-technology related investments and uses into an integrated system

- Monitor investments and determine modifications to their life cycles

- Implement various organizational learning practices including Learning Organization, Knowledge Management, Change Management, and Communities of Practice, all of which help foster reflective behavior, strategic thinking and learning that can be linked to performance (Gephardt and Marsick 2003).

Strategic Integration represents the objective of dealing with emerging technologies on a regular basis. It is an outcome of Responsive Organizational Dynamism, and it requires organizations to deal with a variable that forces acceleration of reflective practices that require decisions to be made in a much less predictable fashion. Strategic Integration would require businesses to realign the ways in which they include technology in strategic decision making and implement new methods of teaching individuals how to use reflective practices in a more dynamic way.

Cultural Assimilation

Cultural Assimilation is a process that focuses on the organizational aspects of how technology is internally organized, including the role of the technology department, and how it is

assimilated within the organization as a whole. The inherent, contemporary reality of Technological Dynamism requires not only strategic but *cultural* change. This reality demands that technology organizations connect to all aspects of the business. Such affiliation would foster a more interactive culture rather than one that is regimented and linear, as is too often the case. An interactive culture is one facilitated through reflective practices so that it responds to emerging technology decisions in an optimally informed way, one that understands the impact on business performance.

The kind of Cultural Assimilation elicited by Technological Dynamism and formalized in Responsive Organizational Dynamism may be divided into two sub-categories: the study of how the technology organization interfaces and communicates with "others," and the actual displacement or movement of traditional technology staff from an isolated "core" structure to a firm-wide, integrated framework.

Technology Organization Communications with "Others"

A case study I undertook involving the Ravell Corporation (a pseudonym) and the workplace integration of its Information Technology personnel (Langer 2001), clearly demonstrates the limitations and consequences of an isolated technology department operating within an organization. It shows that the isolation of a group can lead to marginalization, which results in the kind of organization where not all individuals can participate in decision-making and implementation, even though such individuals have important knowledge and value. Technological Dynamism is forcing technology departments to rethink their strategic positions within their firms' organizational structures. The acceleration factors of technology require more dynamic activity within and among departments, which cannot be accomplished through discrete communica-

tions between groups. Instead, the need for diverse groups to engage in more integrated discourse and to share varying levels of technological knowledge as well as business-end perspectives requires new organizational structures that will of necessity give birth to a new and evolving business-social culture. Indeed, the need to assimilate technology creates a *transformative* effect on organizational cultures, the way they are formed and reformed, and what they will need from technology personnel.

Movement of Traditional Technology Staff

In order to facilitate Cultural Assimilation from a technology department perspective, technology personnel must become better integrated with non-technology personnel than is currently the case. This form of integration can require the actual movement of technology staff personnel into other departments, which begins the process of a true assimilation of resources among business units. While this may seem like the elimination of a technology department's integrity or identity, that is far from being the case. The elimination of the technology department is not at all what is called for here; on the contrary, the technology department is critical to the function of Cultural Assimilation. However, the technology department may need to be structured differently from the way it has been so that it can deal primarily with generic infrastructure and support issues such as – in the case of the IT department, for example – email, network architecture, and security. Technology personnel who focus on business-specific issues need to become closely aligned with the appropriate units so that Responsive Organizational Dynamism using reflective practices can be successfully implemented (Shein, 1992).

The question becomes one of finding the best structure to support a broad assimilation of knowledge about any given technology; then we should ask how that knowledge can best be utilized by the organization. There is a pitfall in attempting to find a "standard" technology organizational structure that will address the Cultural Assimilation of technology. Sampler's (1996) research, and my recent studies with chief executives, confirms that no such standard structure exists. It is my position that organizations must find their own unique blend using organizational learning constructs. This simply means that that the

Cultural Assimilation of technology departments may be unique to the organization. What is then more important for the success of organizational development is the process of assimilation as opposed to the transplanting of the structure itself.

Today, many departments still operate within "silos" where they are unable to meet the requirements of the dynamic and unpredictable nature of technology in the business environment. Traditional organizations do not often support the necessary communications needed to implement Cultural Assimilation across business units. However, business managers can no longer make decisions without considering technology; they find themselves needing to include technology staff in their discussion-making processes. On the other hand, technology departments can no longer make technology-based decisions without concerted reflective efforts toward assimilation (in contrast to occasional partnering or project-driven participation) with other business units. This assimilation becomes mature when new cultures evolve synergistically as opposed to just having multiple cultures attempting variously to work in conjunction with each other. My research on the Ravell Corporation demonstrates that the process of assimilating information technology departments, for example, can create new cultures that in turn evolve to better support the requirements established by the dynamism of technology.

Eventually, these new cultural formations will not perceive themselves as functioning within a technology or non-technology decision framework, but rather as operating within a more central business operation that understands how to incorporate varying degrees of technology involvement as necessary. Thus, organizational cultures will need to fuse together to respond to new business opportunities and requirements brought about by the ongoing acceleration of technological innovation. This need draws out the latent potential for facilitating cultural fusion. This is also well illustrated by events at Ravell subsequent to my work there. Three years after the original case study, it became necessary to integrate one of its business operations with a particular group of technology staff members. The technology personnel actually transferred to the business unit in order to maximize the benefits of merging both business and technical cultures. Interestingly, this business unit is currently undergoing Cultural Assimilation

and is developing its own behavioral norms influenced by the new technology department staff. However, technology decisions within such groups are not limited to the technology department transferred personnel. Technology and non-technology staff can formulate decisions by using various organizational learning techniques.

Drivers and Supporters

There are essentially two types of generic functions performed by departments in organizations: *Driver* functions and *Supporter* functions. These functions relate to the essential behavior and nature of what a department contributes to the goals of the organization and as such must be included in ROD. Drivers are defined as those units that engage in front-line or direct revenue generating activities. Supporters are units that do not generate obvious direct revenues but are designed to support front-line activities. For example, operations such as internal accounting, purchasing, or office management are all classified as supporter departments. Supporter departments, due to their very nature, are evaluated on their effectiveness and efficiency, or economies of scale. In contrast, driver organizations are expected to generate direct revenues and other ROI value for the firm. What interests me is that Drivers are expected to be more daring – since they must inevitably generate returns for the business. As such, Drivers engage in what Bradley and Nolan (1998) coined "sense and respond" behaviors and activities.

For instance, marketing departments often generate new business by investing or "sensing" an opportunity, quickly – due to competitive forces in the marketplace. They must sense an opportunity and respond to it in timely fashion. The process is a stage in a new technology cycle that organizations need to support. Failures in the cycle of sense and respond may be expected. Take, for example, the launching of new fall television shows. Each of the major stations goes through a process of "sensing" what shows might be interesting to the viewing audience. They "respond" after research and review with a number of new shows. Inevitably, only a few of these selected shows become successful; some fail almost immediately. While relatively few shows succeed, the process is accepted and is seen by management as the consequence of an appropriate set of steps for competing effectively – even though the percentage of successful new shows is very low. Therefore, it is safe to say that driver organizations sometimes engage in high-risk operations.

> *The challenge is to have organizations create processes that can formally and informally determine the benefit of new and emerging technologies on an ongoing basis.*

The example above raises two questions: 1) How does "sense and respond" relate to the world of technology organizations, and 2) Why is it important? Technology departments are unusual in that they may be regarded as both Driver and Supporter, the latter being the generally accepted view in most firms. Indeed, most information technology functions, for example, are established to support a myriad of internal functions such as accounting and finance, data-center infrastructure (e-mail, desktop, etc.), enterprise level application (ERP), customer support (CRM), and web and e-commerce activities. As one would expect, these information technology functions are viewed as overhead-related, as somewhat of a commodity, and thus constantly managed on an economy-of-scale basis – that is, How can we make this operation more efficient, with a particular focus on cost containment?

So what then are technology Driver functions? By definition they are those that engage in direct revenues and identifiable ROI. How do we define such functions in technology departments, as most activities are sheltered under the umbrella of marketing organization domains? (Excluding, of course, software application and other new product development firms that engage in marketing for their actual application products.) I define technology department Driver

functions as those projects that if delivered would change the relationship between the organization and its customers, that is, those activities that directly affect the classic definition of a market: forces of supply and demand, which are governed by the customer (demand) and the vendor (supplier) relationship.

Technology Department Roles and Responsibilities

The preceding section focuses on how technology departments can be divided into two distinct kinds of business operations. As such, technology department roles and responsibilities need to change accordingly, under the auspices of Driver and Supporter theory. Most traditional technology departments are designed to be Supporters; they have a close knit organization that is secure from outside intervention and geared to respond to user needs based on requests. While in many instances this formation is acceptable, it is very limited in providing the technology department with the proper understanding of the kind of business objectives that require Driver-oriented activities. Because more and more technology is becoming Driver-essential, technology personnel will need to develop an ability to reflect and communicate to managers and executives and to assimilate within other departments.

Another aspect of Driver-and-Supporter functions is the concept of a "life cycle." A life cycle in this respect refers to the stages that occur before a product or service becomes obsolete. Technology products have a life cycle of value just as any other product or service. It is important not to confuse this life cycle with processes during development as discussed earlier in this paper.

Many technical products are adopted because they are able to deliver value— value that is typically determined based on ROI calculations. However, as products mature within an organization, they tend to become more of a commodity; and as they are normalized, they tend to become sup-

port-oriented. Once they reach the stage of support, the rules of economies-of-scale become more important and relevant to evaluation. As a product enters the support stage, replacement based on economies-of-scale can be maximized by outsourcing to an outside vendor who can provide the service cheaper. New technologies then can be expected to follow this kind of life cycle, where their initial investment requires some

FIGURE 2. Driver-to-Supporter Life Cycle

level of risk in order to provide returns to the business. This initial investment is accomplished in Responsive Organizational Dynamism using Strategic Integration. Once the evaluations are completed, Driver activities will prevail during the technology's maturation process, which will also require Cultural Assimilation, and inevitably technology will change organizational behavior and structure. However, once the technology is "assimilated" and organizational behavior and structures are normalized, individuals will use it as a permanent part of their day-to-day operations. Thus, Driver activities give way to those of Supporters. Senior managers become less involved and line managers then become the more important group that completes the transition from Driver to Supporter. Figure 2 illustrates the cycle.

Conclusion

Responsive Organizational Dynamism represents my attempt to think through a range of responses to the problems posed by Technological Dynamism, which is an environment of dynamic and unpredictable change resulting from the advent of innovative technologies. Creating an environm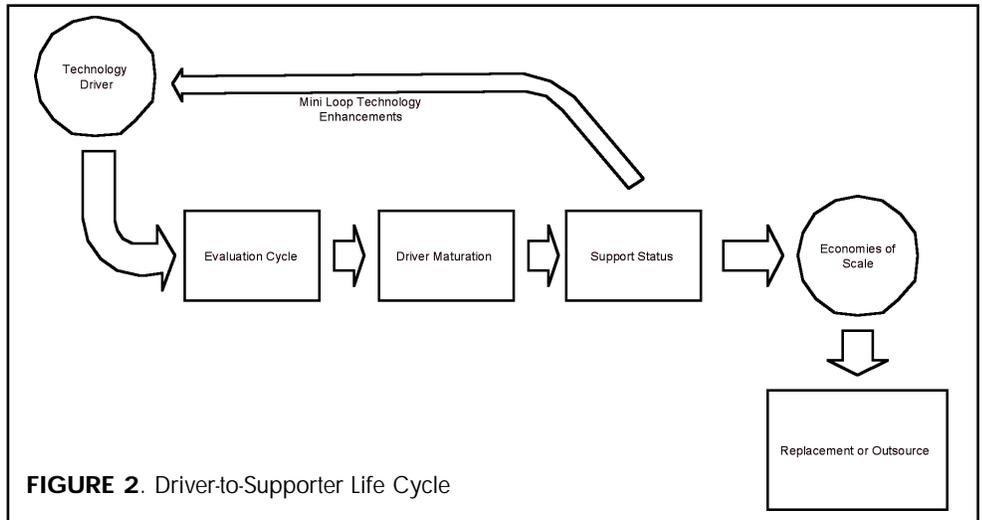ent of Responsive Organizational Dynamism requires processes that can foster individual and organizational reflective practice to foster quick thinking, learning, and transformation. The challenge is to have organizations create processes that can formally and informally determine the benefit of new and emerging technologies on an ongoing basis. Reflective practices are a vital component to aiding organizations in sustaining firm-wide responses to Technological Dynamism and forming special Driver and Supporter lifecycles. ■

Adapted from Special Issue on the Theory of Constraints (TOC) in The International Journal of Production Research, January 2003

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Roundtable Meeting Take-Aways

TURNING INNOVATION INTO A POWERFUL BUSINESS STRATEGY

1) MAPPING INNOVATION: AN EXPLORATION OF PRINCIPLES AND PROCESSES

In accord with inputs received at the November 2004 Advisory Board/Roundtable meeting, the February 2005 SATM Roundtable began a year-long examination of the aspects and processes of innovation. The ultimate goal of the series is to develop answers to the fundamental question, how can innovation be turned into a really powerful business strategy?

The objective of this initial meeting was to explore the "topography" of innovation – that is, to provide a broad overview of the field in order to identify the crucial elements that must connect synergistically in order for innovation to successfully occur. We deliberately opted for considerable breadth in this first session, in order to uncover the specific interests and needs of Alliance organizations that should receive more focused, in-depth treatment in future meetings.

The meeting was hosted by ARDEC at Picatinny Arsenal. The facilitators were Larry Gastwirt, SATM Director, and Anthony Le Storti, Executive Consultant, IDEATECTS, Inc.

Larry opened the session by pointing out that a large number of the Roundtable meetings conducted by the Alliance over the past dozen years have dealt with innovation in the broad sense, whether or not the word "innovation" appeared in the titles, as have many of the papers published in the SATM quarterly publication. He handed out a selection of readings drawn from the publication. (The list can be obtained from the SATM office, and the papers can be downloaded from the SATM web site, http://howe.stevens.edu/SATM/)

Larry tabled some initial definitions of innovation and invited discussion, to ensure that we were working from a consistent understanding of this fundamental term. In its most fundamental sense, innovation is the introduction of something new. Elaborating, innovation can be considered the process by which ideas for responding to business needs and opportunities are conceived and advanced from the concept stage to utilization for economic value. A succinct formulation used at Benjamin Obdyke, Inc. is "the creation of value through the implementation of new ideas".
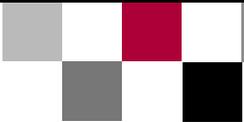
Larry suggested that a useful way to begin our exploration was with a review of the SATM Innovation Model, developed through research conducted by the Alliance in the 1990's, since the model offers a comprehensive description of the critical elements underpinning innovation. The slides used in Larry's presentation can be obtained from the SATM office. Some key points follow;

for further details, see "A Prescription for Innovation," (Jack McGourty and Lem Tarshis) in the Summer 1998 Newsletter.

Innovation in "best-of-breed" organizations is not happenstance. Rather, it is an outcome of the systematic practices put in place by leaders to develop and sustain a cultural environment that stimulates employee behaviors that further innovation. The SATM Innovation Model, depicted stylistically below, identifies the major factors associated with innovation as Culture, History, Behaviors, Strategy, and Organizational Practices. Culture – the set of normative, stable, everyday behaviors exhibited by the individuals in the organization – is a major driver of innovation. The cultural environment encompasses the relevant behaviors and is, in turn, defined and reinforced by employee behaviors as well as by organizational practices.

An organization's history clearly impacts on its culture. The views and beliefs of founders and leaders and the stories of successful innovations – and how they were handled in the organization – have a profound effect on what employees think and how they behave. Although nothing can be done to alter history, management must recognize what the history is and either use it, if it is supportive of innovation, or deal with it appropriately if it is not.

Based upon its study of "best-of-breed" organizations, the SATM Innovation Model defines four distinct behavioral patterns common to individuals in organizations that are

leaders in innovation: Inquisitive, Advocative, Collaborative and Goal-Directed behaviors. These innovation-producing behaviors, in turn, are encouraged and supported in leading organizations through the application of specific managerial and organizational practices, which can be summarized under the following categories: Strategic Drivers, Employee Selection, Employee Development, Reward and Recognition Systems, Support Systems for Idea Generation, Multifunctional Structures, and Leadership. The model breaks the behavioral patterns into some 25 distinct behaviors, and the managerial and organizational practice categories into more than 50 distinct practices.

The SATM research found a clear, statistically-significant difference between high and low innovators when we measured these behavioral patterns and the related organizational practices required to create and maintain an innovative work environment. SATM has developed an Innovation Audit that permits organizations to measure its behavioral patterns and organizational practices, and to benchmark its ratings against a population of "best-of-breed" organizations.

Tony Le Storti followed with a "mapping" of innovation. A copy of his slides is available from the SATM office. His first point was that, while innovation is usually thought of in terms of new products and services offered to customers and consumers, organizations can achieve significant new value through "internal innovations" that can be applied to the business model, organizational processes, and systemic structures.

Tony put an early focus on the obstacles to innovation, those elements or dynamics that too often impede or derail innovation efforts. The first of these is complacency due to market success. This attitude often focuses thinking on current products, an approach that usually results in line extensions rather than significant novelty. Other obstacles include short-term thinking by organizations and individuals, lack of a clear strategy, tight clustering (a narrowing of focus or tendency to look inward that is based on expertise, but results in an inflated organizational ego), lack of systematic processes, a non-supportive culture, lack of ability in gaining acceptance of novel ideas, failure to build an adequate

community around a new idea, and poor leadership.

The concept of a "portfolio" of modes and means of innovation was then outlined. (For details, see Tony's article in the Fall, 2003 issue of the newsletter, cited below.) The challenges here include composing the portfolio, assuring broad coordination and cooperation, establishing a strong information/innovation management system, and sharing learning among individuals, teams, and departments.
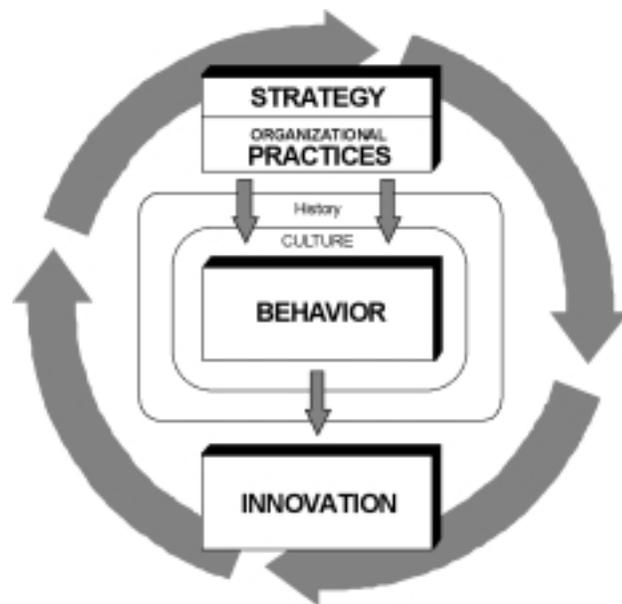
The next point of discussion was creativity, the insight at the front end of innovation. Tony offered definitions of creativity as a process and as a product, i.e., as the cognitive activity of generating, developing, and evaluating new ideas, and as the novel and appropriate object, technology, or manner of performance that results. He noted that there are four components to creative productivity that managers need to develop in their staffs: domain knowledge and skills, process skills (creative thinking tactics), motivation (especially intrinsic motivation), and organizational environment.

A quick outline of the most and least used sources of innovation was provided. Most used included competitor observation, research and development, customer suggestions, and analyzing competitors' products. Least used were customer complaint analysis, suppliers' suggestions, customer surveys, and hiring from competitors.

Tony then presented an overview of innovation as a strategy. He labeled as "desired market impact" the combination of areas of prospective innovation and types of market share approaches. The former includes incremental growth in existing product areas through line extensions and complimentary products, movement into existing categories but new to the business, and efforts at "white space" innovations that would be new to the market in general. Market share approaches were described as either incremental growth

and/or incumbent protection of current market share or attempts at disruptive innovation.

The group then explored specific strategies for generating and/or capturing potentially innovative ideas: building on the past, leveraging networks and partnerships, promoting new linkages, harvesting ideas from everyone in the organization, gathering and providing abundant information, aligning organizational levels of understanding, ensuring a

supportive culture, and broadly diffusing learning.

After a brief characterization of a culture that is conducive to innovation, Tony concluded by describing the most important challenges that leaders of innovation must address. These are forming the vision, defining a clear and coherent strategy, providing innovators with easy access to supportive relationships, ensuring an abundant flow of information, providing necessary resources and organizational support, developing an appropriate reward and recognition system, ensuring that learning is always a concomitant aspect of daily operations, and developing competencies for the future (as contrasted with competencies for today's technologies). ■

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STEVENS ALLIANCE FOR TECHNOLOGY MANAGEMENT

UPCOMING EVENTS

2005 SATM Conference, May 19

The annual SATM Conference will address **Innovation as an On-going Strategy**. It will provide an understanding of innovation strategy as an integral part of business strategy, and look at how some organizations are dealing with the necessity for continual innovation.

Anthony Le Storti, Principal of Ideatects, will set the stage by exploring the concept of innovation as a strategy. **Peter Koen**, Associate Professor, Howe School of Technology Management, will discuss his research findings on both World Class Innovation and best practices, based on one of the first large surveys focused on the discovery portion of the innovation process. **Stephan Wiet**, Director, Consumer Sciences, McNeil Consumer & Specialty Pharmaceuticals, will describe the efforts of his company to relate innovation strategy with customer feedback and advice, and **David Belanger**, Chief Scientist for AT&T Laboratories, will discuss AT&T's approach to defining innovation strategy.

The Conference will take place on Thursday, May 19 from 8:30-4:00 at AT&T Laboratories in Florham Park, NJ. You can download the announcement and application from the SATM web site or phone Sharen Glennon at 201-216-5381.

Roundtable Meeting, July 12

The Roundtable meetings for 2005, like the Conference, are being devoted to aspects of the general theme of **Turning Innovation into a Powerful Business Strategy**. The February 8 meeting introduced the topic with a discussion on **Mapping Innovation: An Exploration of Principles and Processes**, followed by the April 19 meeting on **Leadership for Innovation**.

The July 12 meeting, from 2:00 to 5:00 PM, will continue our exploration, addressing **Overcoming the Obstacles to Innovation.**

For further information on these and other Alliance activities, contact Dr. Lawrence Gastwirt: **212-794-3637 • lgastwirt@aol.com**

INFORMATION

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