



## **Managing Change by Changing Managing**

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Eleven years ago I was working in industry, fighting to make a struggling company survive. Everything about the enterprise was traditional: the industry, the management structure, the business philosophy. But nothing was working. The only apparent solution was to create something new and abandon the traditional. In essence, it was time to think outside the box.

It was not the first time I had broken old rules to make a venture succeed. I had done so some years before, turning an idea into a profitable \$40 million a year enterprise—in under three years. It was a case of project management at its best.

### **Survival of the fittest**

Project management is at least as old as the mighty pyramids of the Pharaohs of Egypt. But the modern context for management bears little resemblance to that in which the planning and execution of those wonders of the world first took place. New technology, societal change, improved business models, faster delivery of products to market, and a myriad of other changes have all joined forces to confound efficient management. The popular business mantras of “continuous improvement,” “empowerment,” “quality function deployment,” “business process re-engineering,” and the like have become hackneyed. These days a more appropriate analogy, I believe, is the Darwinian concept of evolution. Adaptation to the changing environment and survival of the fittest will determine whether an enterprise in our 21st century will survive and flourish.

My interest in project management, nurtured by 20 years in private industry, was given fresh focus when I moved into the world of academe at the University of British Columbia. The move allowed me the opportunity to look more objectively at the juncture where technology, business, and society converge. Change is constant at this convergence and technology is a dominant force. And every significant change is a project. So if we study how we manage projects, it will bring insight into how we manage technological change. More than ever, insight is badly needed as technological development races rampantly, erratically, and exponentially, making it both risky and bewildering for most organizations to choose the applications they need on a daily basis.

### **Addressing the problem areas**

It follows then that we need a much better understanding of project management in its broadest sense. That's because it is much more than a detailed, critical-path schedule. To be effective, project management must address three problem areas. First, the effective management of projects must ensure that technical, business, and social issues are addressed in a balanced and cohesive way. Second, the new profession of project management must ensure that its published literature is complete and reflects not only state-of-the-art practices, but also reflects best practices in the workplace. Third, traditional approaches to project management often no longer apply to

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increasingly complex situations, which frequently arise from corporate change and adoption of technology. This is where an understanding of corporate evolution is required.

As the holder for the past seven years of an NSERC/SSHRC Chair in the Management of Technological Change, I have been in an ideal position to address this problem. I began my research by asking a panel of industry experts to prepare a list of concerns and challenges relating to the modern challenges surrounding project management. By prioritizing this list and developing a research plan, we were able to study the changing nature of change and its effect on how we manage it. A number of ideas and issues arose that immediately interested us including: contracting processes and methods; effective metrics for managing projects; better ways of planning; managing geographically distributed teams; competencies of project managers and their team members; value engineering; and specific industry best practices in the management of schedule, cost, and performance.

As my students, colleagues, and I made inroads on these topics, two significant findings emerged. The first was that the individual tools, processes, and competencies that worked cohesively and synergistically in the best examples of technology project management were not normally all found together in practice. For example, at the simplest level, practitioners tend to plan activities, estimate costs by work packages, and manage by deliverables. Yet where the tools and processes were cohesive (all based on deliverables), better performance was evident. Another example of this? Live television routinely delivers projects on time—the six o'clock news starts on time every day. It soon became apparent that successful delivery was linked to an appropriate balance of business, technical, and social issues.

Our next step? We undertook to assemble a series of cohesive and balanced tools, processes, and competencies into a presentation package that we could test on live projects. Labeled SMART Management™, the framework was first used in controlled test beds and then on real projects with a number of companies that supported our work.

## **Reaping the rewards: faster, cheaper, better**

Since those early days, the SMART Management™ approach to project, program, and corporate management has been used on several hundred projects in various forms. It has also been adopted and adapted by a growing number of companies. These companies are starting to reap the rewards of adding best practices to their suite of competencies, with the result that projects are delivered faster, more cheaply, and with better quality. In turn, their customers are benefiting from improved products, timely delivery, and competitive pricing—while the users are gaining market advantage and greater returns. In all, over 70 companies in Canada, the United States, and Europe have been involved in its development and use. SMART Management Inc. and Quality Enhanced Decisions Inc. are two companies spun off from this work.

The second finding to emerge from our research was a single common element that was isolated and identified as being significant in all issues we investigated. And that is trust. When trust is absent in an organization, effective change is disabled. Trust is critical to the successful enterprise, and understanding it from the perspective of both a business and a “mechanical” point of view is now the object of our research. Trust

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has now become the focus of the NSERC/SSHRC Chair, supported fully by my industry advisors.

A mechanical model, which breaks down trust into three distinct types, has been developed and tested against classical cases from the extensive literature on this intriguing subject. This model is now being validated through empirical data collection. And through a series of diverse research projects, we are looking at the role of trust on specific aspects of the change-management process. Where does the value of this work lie? In opening opportunities to create better-managed, supply-and-demand chains; improved contracting with lower overheads; faster team building; better relationships between geographically separated teams; improved communication; and development of the elements in an enterprise that allow people to trust their own management and organizational leadership.

In its business planning, every enterprise has at least two objectives. These objectives are inextricably linked but often require different approaches. The first is survival. This includes adapting to changing circumstances, which in turn means reorganization, harnessing new technologies in both production and delivery, and other changes that can reflect an aspect of organizational evolution. The second objective is planning for growth, new products, and improvements in performance in other ways—ways that will embrace research and development, better production and delivery methods, and a quest for new or better markets. Both objectives require evolution of the organization and the skills of its employees. Some skills will become redundant. Some skills will be in short supply. While others will be completely new. The organization will adapt to these changes by restructuring to accommodate new departments and groups, and it will heal over where redundancy has occurred.

We need to recognize that each of these changes can be managed as a project with clear objectives and deliverables, known metrics for success, and alignment to the overall corporate strategy. We also need to appreciate that to achieve better enterprise evolution in the technology arena, we will need to change our organizational model from a static one (that we rework from time to time) to a dynamic one that is more fluid and responsive.

The organizations that are doing this are also looking at their business less as operation based, and more as a series of projects to challenge and improve every aspect of what they do. This shift helps us to understand, limit, and better control the changes that are occurring. It also allows us to use a more thoughtful approach to the business, technical, and organizational issues that such changes create.

Rapid and diverse changes are impacting every organization. Our research program at the University of Calgary—made possible by NSERC and SSHRC, and industry support for the Chair Program in the Management of Technological Change—has introduced a new way to manage change. First we determine what is needed, and then we provide a cohesive and strategic approach to manage the change. The growing use of these research findings has already helped many organizations manage their business more effectively and cohesively at every stage and at every level. In addition, the research program has brought about significant performance improvements in the management

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of technological change, and in other changes that are part of the continuous evolution of enterprises.

After all these years, this fascinating and growing area of study continues to hold my interest. I am mindful how much of that interest arises from seeing research findings adopted by industry, and hearing the "ahas" from my graduate and undergraduate students as they find tools to help them in their careers.