

Managing Difficult Projects
By André Costin
(A book review by R. Max Wideman)
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Introduction

These days, "project" is a common enough word used with hardly a second thought. We have school projects, homework projects, and hobby projects, to say nothing of an overabundance of projects in the burgeoning information technology industry. It seems that projects are everywhere. But what of the projects that we encounter everyday or, more accurately, the products of those projects to which we give little thought?

Serious projects like our water supply, power supply, roads, rail, airports, harbours, in fact infrastructure of all kinds and all of the devices that go with them like automobiles, trains, aircraft and ships? When we see a huge dam straining against the massive volume of water in its reservoir, or an elegant bridge under heavy traffic, calmly resisting the force of gravity, how often do we ask: "How did they manage to do that?"

And if we did ask the question, maybe we are referring to how they came up with the design or how they put it together. Rarely do we think about how did they manage the entire enterprise – how did they decide what projects such as these would be needed, whether they would be worthwhile investments, and what risks would be involved. These projects are difficult because they involve a high level of investment or are very tightly controlled with limited funds.

Such projects typically involve a large number of people or a mix of highly diverse specialists and their respective interests. And they involve high levels of risk whether financial, physical safety, or both, and often call on broadly based international sourcing of materials and equipment. That's what André Costin's book: *Managing Difficult Projects*¹ is about and, because these questions are seldom asked of difficult projects like these, this book is unique.

In composing this work, author André Costin brings to bear a formidable diversity of practical experience having been exposed to a variety of large or small, complex and difficult projects. His responsibilities in program, project and procurement management have enabled him to grapple with the more specialized and finer points of project definition, strategy, logistics, organization and people management in such projects. This is over and above the expected exposure to typical project management activities such as scheduling, budgeting cost and risk management. So, he treats his subjects in depth, not as an academic but in a dual-pathed business career as a practicing engineering manager and management consultant.

André has been managing his own company, Xemplar Inc. Management Consultants since 1990. In this role and as a management consultant with Kates Peat Marwick and Deloitte and Touche Management Consultants, André has delivered many assignments to assist, manage and facilitate the processes of corporate strategic planning, programming, and evaluation of major capital programs and projects. Through this experience he has gained an intimate knowledge of projects such as those described in his book, which focuses on both the delivery of individual projects as well as on the global framework for multi-project capital budgeting and programming.

Book Structure

The chapters of André Costin's book: *Managing Difficult Projects* are as follows:

1. Discovering a project
2. Setting multi-year corporate strategy
3. Defining a project
4. Mobilizing the project
5. Managing people
6. Managing contracts
7. Scheduling work
8. Managing costs
9. Building quality and commissioning
10. Concluding remarks

The first three chapters of this ten-chapter journey begin by discussing the phased project delivery processes, and corporate strategy. As you will see, André takes us through the natural life span of a capital project *investment*. This is the life span of the "technology" that is overlaid with a typical project management life span. The two are not the same, but must function together much like the lungs, a separate organ of the body, must supply the essential oxygen to the heart for the whole body to function as a complex whole.

Chapter 1: *Discovering a project*. Here you will read about such things as identifying an idea that promises gain in the first place; how the concept must be transformed into a project definition, justified by forecasting market demand and trading rewards and risks; and the typical growth and decline of technologies, products and services.

Chapter 2: *Setting multi-year corporate strategy* provides the rationale for sequential project phasing and identifying one of several options for implementation ranging from traditional, to turnkey, to build-own-operate. This introduces the vital distinction between performance and prescriptive-type specifications for the project deliverable. In particular, Chapter 2 proposes using project management methodology in developing the corporate strategic plan. This merits careful consideration by corporate strategists because it allows for the integrated orchestration of diverse capital and operational initiatives and their alignment with the firm's vision and value proposition in the thrust towards growth and profit.

Chapter 3: *Defining a project* gives an overview of the project definition and design process, and the players and their roles in project delivery in both the technical definition and implementation phases. This includes key considerations of the project sponsor in appointing managers to fill key positions, especially in managing the technical definition process, work packaging (WBS), risk assessment and risk mitigation.

Chapter 4: *Mobilizing the project* guides the reader through three action themes, namely, structuring, aligning and committing. That is, shaping the plan of organization and mobilizing key staff members through five basic steps; bringing contract participants into the project team and developing a project implementation plan; and committing all parties to a set of priority guidelines, procedures and responsibilities.

Chapter 5: *Managing people* recognizes the difficulty of managing people on projects, especially in the presence of a disconnect between corporate human resources departments and the needs of project

managers mobilizing for a project. Author André Costin suggests a five-point action plan and various techniques to mitigate these difficulties. He proposes the creation of the learning project organization, focused on building effective project teams guided by a process which he calls "Management by Objectives Plus" (MBO+) Process.

Chapter 6: *Managing contracts* introduces various contracting approaches, current trends and classic flaws perpetrated by the unenlightened. Thankfully, André follows this with clear advice on how it should be done.

Chapters 7, 8 and 9, look at *Scheduling work*, *Managing costs* and *Building quality and commissioning* respectively. These cover the more traditional project management territory of managing to the constraints of schedule, cost and quality, followed by final commissioning, testing, reviews and audits. Under each heading, André goes into some depth and provides valuable suggestions to ensure that these processes are effective. Nonetheless, the content is instructive for executives and managers alike.

In his *Concluding remarks*, Chapter 10, André sets out to answer some obvious questions like "Can you suggest orientations and principles that should govern the delivery of any and all project?" to which he responds with ten principles. He also answers some not-so-obvious questions like "What can a contract service provider do to help a sponsor manage his risks better?"

What we liked

André's book is targeted towards the corporate world, because these are the people who have to make the big decisions. Their job is to select those major projects that should make the most sense in terms of economics and usefulness, in the face of substantial financial commitment and risk. And, having done so, assemble sufficient financial and material resources to complete the enterprise.

All of this is far from a trivial exercise, yet those concerned are often, perhaps necessarily, politically motivated. At the same time, such people do not always have a good understanding of sound project management principles and practices. This may be especially true where large projects are concerned and are "difficult" by virtue of the number of parties involved, or by the intractability of the problems encountered, or both.

Particular examples that André draws upon for case studies to illustrate his thoughts include: Hong Kong's New Airport at Chep Lap Kok, the Montreal Major Postal Plant Project, and the Optima Bus Factory Turnaround Project. For those not familiar with these projects, the new Hong Kong airport is a \$6-billion (USD) project that opened for commercial operations in 1998. It replaced Kai Tak airport, and is an important regional trans-shipment centre, passenger hub and gateway for destinations in China, East Asia and Southeast Asia.

Working for Deloitte & Touche Management Consultants, André helped develop a 600-person organization structure to direct the design, procurement, logistics management, and construction of the new airport. The Montreal Major Postal Plant Project was a \$275 million (CAD) investment to design and construct three highly innovative automated postal sorting facilities located at Laval, Montreal Centre, and St. Laurent. As Deputy Project Manager with the Shawinigan-Dyname Joint Venture, André was responsible for managing the implementation of fifteen performance contracts for the design, supply and installation of bag, letter and parcel sorting and conveyance equipment.

Each contract entailed customized mechanical and electrical equipment, operated using specially designed process control software, linked to a Plant Operating Information System. The process control software proved to be the highest risk elements of the entire project. Other case studies are composites of actual projects.

The Optima Bus Factory Turnaround is a project of a different type. For more than twenty years the company manufactured a range of quality products from park amusement rides to Ferris wheels to old-fashioned-looking sightseeing buses to heavy-duty transit buses. However, between 2000 and 2003 the company experienced financial hardship arising from soft sales, the cost of developing a major new mid-sized transit bus line and moving to a new 124,000 sq. ft. production facility. Under a new CEO, the company's executive was reorganized under a four-year strategic plan to be completed by 2007. The intent is to make the necessary organizational and operational changes that will grow the business by some 40% per year and that's no mean target.

Downside

If there is a downside, it is that I must admit that I have a keen interest in this book, not pecuniary, but because of its content and departure from the norm. The reason is because I reviewed the author's text as it developed and provided extensive comments as it progressed. I also wrote the book's *Foreword*, from which these remarks are taken. Nevertheless, I hope that my remarks are factual, even if somewhat prejudiced in favor.

Since I now have some page space left to play with, here follows my favorite illustration taken from Chapter 10: *Concluding Remarks*. Figure 1 shows how the cost of a project can get out of hand by seemingly innocuous delays in design.

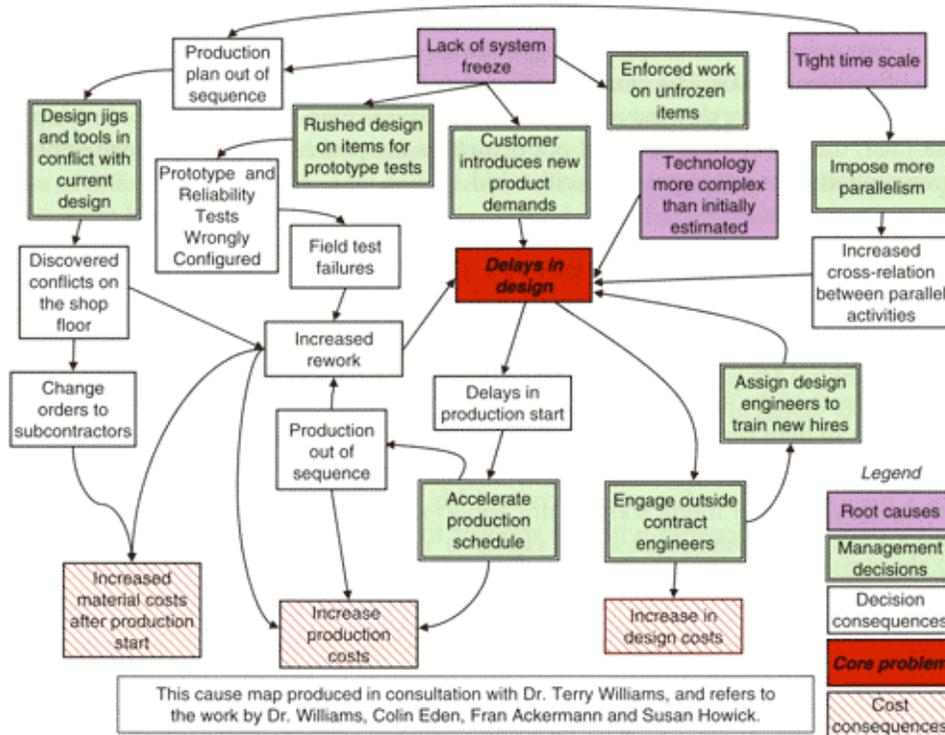


Figure 1: A Causal mind map illustrating galloping costs²
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Summary

In addition to the real-world case studies described earlier, André also provides detailed examples and, for the very discerning reader where processes are involved, he provides worked examples and model solutions. He also provides a Glossary of some 200 terms used in the text. This is most valuable because not only do opinions differ as to the meaning and use of many terms in project management, but the Glossary makes clear André's specific meaning in his text.

Some of the lessons that readers should be able to take away after reading this book include:

- The critical importance of the project development process, especially the generation of knowledge in the project delivery process
- The importance of sound documentation practices in advancing a project expeditiously
- The value of innovation in developing business strategy and the vital contribution of the project management discipline in spearheading innovation
- The correct staging of the contribution of a wide range of managers and specialists in project delivery
- The role of the corporate executive in being the driving force in project delivery
- The extended role of project management in so far as there may be one project director but several project managers, all working on the same project at the same time
- The contribution of risk management in defining the scope of a project
- Given that each project has unique attributes, the importance of focusing sound practices around principles rather than on specific one-recipe-suits-all type of canned processes

And finally:

- The vital importance of phased project delivery in the primary sequence of Discovery, Definition and Implementation, as a spur to delivering projects with more success and faster. "Implementation", by the way, includes project mobilization, detailed design, execution, commissioning and the successful transfer of the *care, custody and control* of the facility or product to its new owners. This last step can make or break an otherwise successful project.

In so far as project management education goes, it is too important for the future of mankind, to be given the role of after-thought in business management curricula. Project management as a discipline deserves more prominence in universities, and needs to be given a major place alongside finance, accounting, economics, marketing, operations and information technology. Meantime, I thoroughly commend all those who are, or likely to be, involved in managing complex difficult projects to study this book carefully for the sage and practical advice that it offers.

In fact, if you are not sure whether your project is difficult, but you suspect that it might become so, perhaps you would do well to keep this book as a ready companion, just in case. It may even help you manage your standard projects more quickly, more cheaply, and with better results.

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¹ Costin, A. A., *Managing Difficult Projects*, published by Elsevier in the UK, 2008

² Ibid, p271