BOOK REVIEW

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Complexity Theory and Project Management
Author:  
L. Wanda Curlee and Robert Gordon
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Introduction

This book approaches complexity within projects as an opportunity to embrace change in a way that is intended to strengthen organizational capabilities. The underlying assumption that Curlee & Gordon have is that organizations need to incorporate practices that inject complexity into projects as a managed process. Curlee & Gordon propose that this be done at the framework level within PMBOK, as well as at the organizational level through the inclusion of virtual teams on projects.

Curlee & Gordon take the position that PMBOK is a methodology that needs to be modified in order to account for complexity in the modern environment. The book discounts the counter position that PMBOK is a framework that leaves room for other practices and tools to be included. What I enjoyed about the book is that the logical argument for moving away from a linear approach provides a useful description of how complexity within projects needs to be identified and how it drives the need for deviations from certain practices. Because the book's perspective on PMBOK is similar to the opinion many others have, it’s a great primer for the type of discussion an experienced project/program manager may need to have when coaching a new project manager engaged on a complex project.

Most of the book covers the management of virtual project teams. The impact of virtual teams is viewed through the prism of complexity theory, and in doing so we get to see how the use of virtual teams drives the creation of the core capabilities needed for dealing with emergent complexity. Curlee & Gordon illustrate how making the adjustments to accommodate effective use of virtual team members carries additional value for the organization by providing the opportunity for higher levels of engagement, job satisfaction, and project execution. Half of the book is focused on the application of complexity theory to project and organizational culture. By relating cultural changes for the organization to project level decisions, the book shows project managers how well managed projects can have a positive impact on team members and influence corporate culture.
Overview of Book's Structure

The first 15% of “Complexity Theory and Project Management” is devoted to a general overview of complexity theory and how complexity theory is seemingly at odds with PMI's PMBOK training. Having provided a general description of complexity and an argument for expanding the PMI PMBOK framework to include complexity, Curlee & Gordon focus on elements of complexity evidenced when using virtual project teams and shows the reader how to best use this to benefit the organization.

The book is organized into five sections with useful case studies and numerous practical tips clearly identified throughout each of the chapters. Each chapter includes discussion questions and lends itself to use within a student-centered classroom setting where the instructor engages students by asking questions that drive further analysis and research. “Complexity Theory and Project Management” shows how to identify forms of complexity within projects and illustrates various approaches that can be leveraged to manage the project team effectively. It does not make any attempt to apply technical classifications towards identifying complexity, but chooses instead to rely on a more general determination of what should be seen as complexity within a project. For the experienced project manager, this helps transform personal experience into actionable knowledge by building awareness.

Examples taken from case studies combined with cited works forms the foundation of the techniques articulated throughout the book. The first four sections of the book provide the building blocks for understanding and working with complexity within projects. The fifth section takes more of a toolkit approach to providing actionable resources that can be used by the project manager.

Highlights

An underlying theme throughout the book is that significant value can be obtained by using virtual teams and by developing competency in managing virtual teams. By understanding how this relates to general principles of complexity theory, the benefits will extend beyond the use of virtual teams. Curlee & Gordon state that complexity must be embraced in order to increase value. The focus is predominantly on tactical application of complexity theory within the context of managing virtual teams.

Case Studies and Practical Tips are used throughout the book and add significant value for the reader. Another great feature is the chapter devoted to a toolkit collection that provides the practitioner with resources that can be used to apply the concepts in the book to their projects.

Highlights: What I liked!

The frequent use of case studies and well cited references for key ideas stand out as the strongest elements of the book. The case studies are relevant to the discussions and are presented in a well-crafted and succinct manner. The authors cite the supporting material
and the cited references are easy to locate at the end of each chapter. Although I didn’t agree with the authors in every instance, I enjoyed the fact that the resources were easily available to dig deeper into the concepts. Every chapter presented a valid observation to think about, consider, and learn from.

The importance of building trust within the project team is covered throughout the book. “Complexity Theory and Project Management” weaves an understanding of how trust plays out in various ways on a complex project and clearly places the responsibility for building and maintaining trust on the shoulders of the project manager. Curlee & Gordon provide specific steps that can be taken in various scenarios which increase the level of trust, along with what to watch for in determining where trust has been lost. For the most part I felt that good information was provided regarding how to influence trust within the team.

My favorite idea that came from the book is the use of a dynamic plan as a structured approach to managing a complex project. Curlee & Gordon acknowledge the importance of operating from a structured plan and then propose collapsing the standard 5 step planning model (establish objectives > analyze situation > determine alternative courses of action > evaluate alternatives > choose and implement plan) into 3 accelerated steps in order to accommodate the complex project.

The 5 step model is predicated on the assumption that all the alternatives can be evaluated at a single point in time and that there will be only one plan that is the correct one. The Curlee and Gordon model is built on the assumption that all of the alternatives cannot be built up from a list of task, but must be based on the entire system inclusive of the team. In the Curlee & Gordon model, the plan is a tool that guides the project to success and outlines the expected interactions, rather than a task dependent listing.

Shortfalls: What was Missing!

I would like to have seen the authors elaborate more on the strategic roadmap for capturing value for the organization, rather than leaving that to the reader. Having a stronger structure up front to clarify where virtual teams fit into the development cycle for an organization would have helped provide context for the majority of the book. Having the chapters conclude with an expansion of the key principles and what value is captured for the organization as it relates to developing competency in handling complexity would be useful for the reader.

Who might benefit from the Book

Experienced project/program managers will find plenty to glean from this book. Experienced department, product, and team leaders will also relate to most of the examples on some level and understand the limitations of a linear approach. Curlee & Gordon offer a fresh view of the experiences that many managers have had. The book helps guide the reader towards identifying subtle insights that can be leveraged quickly once they are recognized.
The challenge some readers may have with the book is that Curlee & Gordon don’t offer a structured conceptual framework or strategic implementation roadmap for the reader to follow. The reader is required to piece this together themselves by fitting the relevant elements of the book into their own experience.

Conclusion

There is a strong focus on the use of virtual teams throughout most of the book. The authors’ intent is for virtual teams to be incorporated into projects in order to build organizational competence in dealing with complexity. It helps to keep in context that Curlee & Gordon are touching on general principles for dealing with complexity by explaining tactical solutions to complexity created by using virtual teams.

Curlee & Gordon provide a great reading experience for project managers interested in exploring options for handling complexity within their projects. The absence of a magic bullet solution will seem refreshing to some – frustrating to others. “Complexity Theory and Project Management” is a book that requires the reader to contemplate what they are reading and extract the meaningful elements that fit within their personal experience.


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