

# COMPLEXITY AND PROGRAM MANAGEMENT

**A ONE-DAY SEMINAR ON THE CONCEPTS AND FRAMEWORK FOR DEALING WITH COMPLEXITY WITHIN YOUR REALITY, ESPECIALLY IN ENVIRONMENTS WHERE THERE IS SIGNIFICANT UNCERTAINTY AND RISK**

*The importance of knowing how to deal with complexity is emphasized by Michael L. George in *Conquering Complexity* (George: 2004): "The winners and losers in the next decade...may well be separated by a single factor: Those that conquer complexity and those that do not."*

APRIL 24, 2009

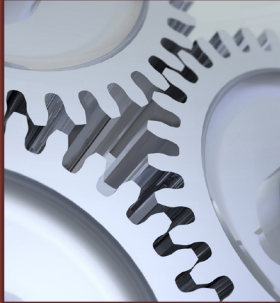
PRATT & WHITNEY ROCKETDYNE ▶ LOS ANGELES, CA

EVENT #9A07

A Proud Affiliate Of

**NDIA**  
National Defense Industrial Association

## **ABOUT THE SEMINAR**



Why do programs and systems fail?

How can governments and companies invest millions of dollars in systems that are abandoned shortly after being placed into service, or are cancelled before they are ever deployed?

What is happening when experienced, trained and educated program & project managers encounter an unexpected system of problems, apply well-known and understood corrective actions, but instead of correcting the problems their actions only make it worse?

This seminar presents practical framework to a growing and fundamental problem – the need to effectively deal with dynamic complexity and emergent behavior when managing complexity confronted by programs & projects.

This seminar is not a cookie cutter approach nor is it filled with platitudes or

heavy academic theories.

Instead, it provides the practical knowledge necessary to deal with the unanticipated. It sets the foundation for

- Building a new framework for thinking that will lead to understanding and being able to anticipate and mitigate complexity in programs & projects.
- Applying the principles of innovation that can be used to lead the way out of complex situations.
- Developing an understanding and working philosophy for how to use forensic examples to anticipate potential patterns that lead to complexity.

This seminar promises to deliver proven, practical concepts that you can take back and begin applying in your programs and projects.

## **INTRODUCTION**

To a growing extent, in industry after industry, U.S. firms that only yesterday appeared to be successful in managing programs and projects are experiencing unsatisfactory results. They are further puzzled by the dilemma of unexpected turbulence that arises in spite of the absence of any significant abnormalities in performance indicators.

Organizations are now finding that the traditional program and project management approaches and familiar patterns of response to the unexpected are proving to be less and less useful for the pursuit of a desired outcome. All of this is happening despite the fact that most of these program and projects are doing well what they used to do. To respond they are implementing a variety of hopeful corrective actions, to no avail.

This failure to attain expected results in spite of great effort is to a great extent attributable to the emergence of a new, unique class of situations characterized by complexity. Therefore, conventional formulations and solutions are inadequate to cope with them.

Although the existence of such kinds of situations, as distinguished from more familiar situations is a well described phenomenon in today's management sciences, many practitioner organizations are not aware of the them.

In the management sciences, such a characterization covers some essential aspects of the worlds with which managers have to cope. Managers face situations in which the following characteristics are present: (1) it is not clear which activities are relevant; (2) it is not certain how or to what extent these activities are interdependent; and (3) the environment to a manager appears ill-structured, dynamic, and uncertain

This suggests that the practitioner organizations or consultants lack the right perspective and the right concepts required to diagnose such kinds of situations as well as to invent ways of dealing with them.

## **WHAT YOU WILL LEARN**

In this seminar you will learn about the basic concepts and effective approaches that can be used to tame complexity.

- Appreciating 3 types of challenges: cognition, coordination, & collaboration.
- How to recognize interactive complexity in programs & projects.
- Complexities to deal with complexity in planning and implementation.
- Techniques for dealing with impacts of complex interactions on organizational functions, structure, processes and measurement and control.
- Leadership talents necessary to effectively deal with complexity
- The relationship of complexity to Organizational Learning and Knowledge Management, Program and Portfolio Management, Program Maturity Model, Human Relations.

## INSTRUCTORS

### John Pourdehnad, Ph.D.

John is Associate Director, of the Ackoff Collaboratory for Advancement of Systems Approaches at the University of Pennsylvania. Dr. Pourdehnad's primary areas of interest include implications of systems thinking in complex problem formulation, including complex project leadership. He consults and lectures internationally.

### Robert McCue, P.E.

Bob is Principal and Managing Partner of MDCSystems, and a recognized expert in project management and forensics for the construction industry. He provides expert witness testimony on issues of construction delay, disputes and deficiencies.

### Buck Nimz

Buck is a Principal Project Specialist with Lockheed Martin Corporation and an industry expert in acquisition strategies for complex defense programs. As a former Program and Engineering Manager on complex projects, he understands what it takes to successfully manage and lead multi-discipline teams.

### Dave Chesebrough, P.E.

Dave is President of the Association for Enterprise Information and a student of architecture and complexity theory as applied to information systems across enterprises.

## COURSE OVERVIEW

A one-day seminar on the concepts and framework for dealing with complexity within your reality, especially in environments where there is significant uncertainty and risk. The seminar will be presented in a six module format that promotes interaction and discussion amongst instructors (as many as four are planned) and seminar attendees. The six modules to be covered are;

### 1 - Forensic Program Management – What Goes Wrong and Why

The introductory module covers the understanding of the underlying causes of failure and the differences between linear and nonlinear thinking in diagnosis and prescription. Limitations with simple causal explanations for learning and adaptation in Program Management will be discussed.

### 2 - Situational Awareness

This module will introduce the "Situation Awareness" model which is a necessary framework for a "basic" or habitual way of processing and thinking about sensory inputs and its implication for dealing with complexity.

### 3 - Framework for Decision Making

In this module, the framework that helps to classify the issues facing leaders into five contexts defined by the nature of the relationship between cause and effect. Four of these – simple, complicated, complex, and chaotic – require leaders to diagnose situations and to act in contextually appropriate ways. – applies when it is unclear which of the other four contexts is predominant.

### 4 - Integrative (Synthetic) Program Management

This module will introduce a new strategy for project management learning. Specifically it will describe the requirements for connecting the art and science of Program Management. It takes a systemic rather than analytic approach to the process.

### 5 - Complexity and Program Leadership

This module will present a whole number of changes to the traditional Program Management that are required for leading out of the complexity, including leadership, thinking and performance attributes. There will be an extensive discussion of "what to do when forecasting no longer works?" Anticipation and pattern recognition (ability to connect the dots) between seemingly unrelated events, changes, and trends through cognitive skills, intuition, and prior experience) will be presented.

### 6 - Grounding Conceptual Knowledge in Practice

In this module, the participants are required to consider the implications of what they have learned to their own respective programs and projects. A central characteristic of this module is experiential learning or action learning, which is a facilitated process. Specifically, the participants will be asked to discuss their own actions and experience in order to improve performance of their programs and projects.

## WHAT IS COMPLEXITY?

One day you go swimming in your favorite river. You have done this many times before. As you swim out you realize something is different. An undercurrent is rapidly pulling you towards a very dangerous waterfall. You suddenly find yourself struggling with all your might against this overwhelming, invisible force. Your brain is screaming, "This can't be happening", yet it is. What do you do now? You swim towards shore as you always do, but it has no effect. You struggle harder, tire quickly and the situation becomes worse. Your relaxing summer dip in your familiar swimming spot has unexpectedly become a life and death matter.

This is what happens to the unsuspecting Project Manager. Even experienced PM's can suddenly find they are dealing with complex issues - wicked problems that don't respond to the usual remedies and that threaten their program and can ruin their careers. So what do they do? How could they have known that conditions had changed? What skills can they invoke to gain control?

## HOW TO REGISTER

Registration fee for this seminar is \$750. Discounts are available for teams of three or more. Attendance is limited.

To register on-line please visit the AFEI website at [www.afei.org](http://www.afei.org) and the link for AFEI Seminars. For assistance or more information please contact Ms. Nicole Davis at (703) 247-2597.



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## COMPLEXITY AND PROGRAM LEADERSHIP

TO REGISTER, VISIT:

[WWW.AFEI.ORG/MEETINGS/9A07](http://WWW.AFEI.ORG/MEETINGS/9A07)



REGISTER TODAY: [WWW.AFEI.ORG](http://WWW.AFEI.ORG)

## COMPLEXITY AND PROGRAM LEADERSHIP

### WHO WILL ATTEND:

Anyone involved in managing complex systems or developing and deliver complex systems to clients, including:

- Government Program Offices
- Portfolio Managers and PEO's
- Systems Integrators
- IT Solutions Developers

- Information Systems Managers
- Project Leaders
- Chief Operating Officers
- Chief Technology Officers
- Solutions Architects
- Enterprise Architects

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