



# **COMPACT II**

Administrative Strategies for  
Complex Governance Systems

Edited by  
Jack W. Meek & Kevin S. Marshall

# **Administrative Strategies for Complex Governance Systems**

Challenges of Making Public Administration and  
Complexity Theory Work—COMPACT II

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*Administrative Strategies for Complex Governance Systems:  
Challenges of Making Public Administration and Complexity  
Theory Work—COMPACT II*

Edited by: Jack W. Meek & Kevin S. Marshall

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# Forward

## Complex organizations— Complex thinking

*Terrence E. Deal*

**T**he Federal Aviation Administration (FAA) is charged with divergent goals of defending safety, promoting the economic health of the airline industry and keeping its own costs down. The Agency exists in an ecosystem of other players including big airlines, small aircraft owners, labor unions, politicians, aircraft manufacturers, and executives with their corporate jets. Each group has its own power base and agenda played against a weak federal agency that has little control over how it raises and spends money. As a result, it is difficult to pinpoint who's really in charge. To complicate matters further, the FAA pursues its often-contending goals in a dynamic, disruptive environment. Novel events may rapidly add new players to the FAA's ecosystem.

September 11, 2001 began as a typical day for U.S. air travel. Routine quickly turned to terror as four passenger planes bound for the West Coast were hi-jacked by terrorists and rerouted to strategic targets of their choosing. The FAA is responsible for America's homeland defense system. However, it shares jurisdiction with NORAD (North American Aerospace Defense Command). In an emergency, this adds a new player to FAA's ecosystem.

The added complexity resulted in a major rift in communication. Confusion at FAA headquarters resulted in a delay informing NORAD about one of the hijacked aircraft. An interagency teleconference to provide co-

ordination between the military (another added player) and the FAA was cobbled together, but technical difficulties kept the FAA from participating. When NORAD asked for FAA updates, they got either no answer or incorrect information. NORAD thought one of the hijacked flights was still headed for Washington, D. C., long after it crashed into the World Trade Center.

In retrospect, the nation in 2001 had a web of procedures and agencies aimed at detecting and monitoring potential terrorists. Those systems failed, as did procedures designed to respond to aviation crises. Similar failures have marked other well-publicized disasters: nuclear accidents at Chernobyl and Three Mile Island and the botched response to Hurricane Katrina on the Gulf Coast in 2005. Each event illustrates systemic failure: a chain of error, miscommunication and misguided action.

In the more recent (2014) mystery of Malaysian Airlines Flight 340, there are forty-nine countries, hundreds of agencies and military commands, and thousands of people involved in an exhaustive search for the aircraft. The convolution of such an ecosystem boggles the imagination.

As organizations and ecosystems become more elaborate and knotty, new questions about how they can be better understood have become highly relevant. Is there some order to the apparent chaos? Are our current ways of thinking adequate for decoding the intricacies and interplay of complex systems? Can complicated organizations or ecosystems be managed or nudged?

Complexity theory has evolved as an approach dealing with some of these important questions. This paper explores: (1) the nature of Complexity Theory, (2) how it relates to Organization Theory, and (3) how well it meshes with our ways of making sense of messy, volatile situations.

## Complexity theory

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Complexity theory is a close relative of chaos theory. Both look at systems as highly unpredictable with a subtle underlying order. Chaos theory is an earlier conception, sensitive to initial conditions, and deterministic. It appears more applicable to swarms or mobs. According to Murray Gell-Mann complexity theory deals with “an accumulation of frozen accidents on the edge of chaos”, which adheres in a system of lively intermingling parts. Its logic seems more appropriate for cities; large agencies or firms Complexity theory itself has a multitude of definitions, its research strands range from computer modeling and simulations to organizations of all types. For Pedro Ferreira, essentially the premises look at systems consisting of many parts, connected in intricate ways, with cause and effect subtleties that are imperfectly known and emergent behavior that is difficult to predict. Complexity theorists seek to capture the underlying order and structure of these systems.

## Organization theory

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Max Weber spawned the field of Organization Theory (OT) in the late 1880's. Sociologists later elaborated and refined his ideas focusing on authority and the formal structure of organizations. Sociologists assumed that an organization with a clear chain of command tailored to its strategy and environment would succeed.

Later psychologists, such as Elton Mayo, challenged the logic of a rational, structural approach. They argued that organizations are human organizations. People are not always rational, focused on goals and tasks. They are likely motivated by needs, whims, and personal agenda that have little to do with the chain of command or their assigned tasks. When their personal motives and needs are unfulfilled, they withdraw or rebel.



For many years, tension between the structural and human resource perspectives dominated the field of organization studies. Although there were attempts to reconcile the two, few received wide attention.

During this time, political scientists turned their sights on government agencies and the like. Selznick's *TVA and the Grass Roots* began to focus more attention on the politics of organizations (Selznick 2011). The political view highlights the interests of individuals and groups and their use of power to get their share of scarce resources. Authority is a legitimate form of power but there are others outside the formal command structure. These include what you know, whom you know levers of informal influence and access to coercive force. Decisions come about through bargaining and negotiation.

More recently, anthropologists and interpretive sociologists such as Meyer and Rowan and Goffman have added a symbolic twist on organizations. Deal and Kennedy popularized this perspective in the early 1980s in their book, *Corporate Cultures* (Deal & Kennedy 2000). Organizations from this angle are like tribes, bound together by myth, ritual, ceremonies and stories. They succeed, in large part, because of cultural cohesion and the sustained belief and faith of external constituencies.

With such diverse images, it would appear that the field of Organization Theory is in disarray, or fragmented. From another vantage point, however, it is pluralistic, with each perspective highlighting an important component of system dynamics. This adds to the complexity of complexity theory, currently focused mainly on the interplay of structural variables.

If we wish to understand the cause and effect subtleties of complex systems and explain the emergent behavior, it seems wise to tease out the links between complexity theory and organization theories. In addition, we need to begin to explore how complex systems can be managed or led.

## Complex thinking

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Complex systems are not going to become smaller or less intricate. Globalization and technology are among the forces creating larger, multipart, interwoven ecosystems. Wal-Mart, for example, developed a system to track consumer demand in real time. The company decided to share this information with its suppliers, creating a supply chain hub. Now the more business you do with Wal-Mart, the deeper enmeshed you become in its global ecosystem. The less control you have in running your own business.

The chief problem now becomes how to we manage or lead such complex enterprises. Is current management or leadership theory adequate for understanding the dynamics of intricate ecosystems? Is the sophistication of a mangers or leaders thinking adequate for deciphering messy situations?

Neuroscientists now tell us that the old adage, "Seeing is Believing" doesn't hold up. It has been challenged by its opposite, "Believing is seeing". The brain constructs its own reality and then projects it onto the external world. Reality is therefore what we believe it to be. Once beliefs are formed, we search for facts and other logical ways of confirming what we believe. The world managers and leaders perceive is constructed internally and embedded in mental models, personal theories, or frames. These personal theories help an individual understand and navigate a convoluted social system.

Organization theory tells us that every human system is, metaphorically, a factory, family, jungle, and temple or cathedral. Correspondingly, managers or leaders must be able to think as engineers, counselors, politicians, and poets. The problem today is that many managers are rational thinkers who focus primarily on strategy, structure, and the financial "bottom line". Ron Jonson, who recently nearly destroyed JC Penny by championing

a structural change that overlooked the non-rational human, political and symbolic issues, is a case in point.

Compare Jonson's fiasco to Lou Gerstner's 1993 remake of IBM considered one of the most remarkable turnabouts in corporate history. IBM, once the most admired company in the world, had lost its luster and fallen on hard times. Gerstner, lured from RJR Nabisco, "didn't know a computer chip from a chocolate chip cookie". But he did know structure and strategy and that was how he first approached the crisis at IBM. As he probed more deeply into the Company's problems, however, his thinking changed. He looked backwards through a cultural rearview mirror to trace IBM's historical roots. He found what he was looking for: old values and practices, currently replaced by bureaucratic rigidity, needed to revive the company's spirit and performance. Looking back on his years at IBM, Gerstner concluded: "I came to see, in my time at IBM, that culture isn't one aspect of the game – it is the game just part of the game" (Gerstner 2003).

A final example. As the Ford Motor Company chalked up a 13 billion loss in 2006, chairman Henry Ford III pulled the plug on the current CEO and hired Alan Mulally, then the number two executive at Boeing. As Mulally scrutinized the road ahead, he realized he had inherited a complex muddle. Ford was burning cash, in need of massive capital improvements with everyone pulling in different directions.

His first effort dealt with the paralyzing political divisions inside and outside the company. He cultivated the media, and then reached out to employees through town hall meetings, e-mail and other venues. The board of directors and the Ford family were two very important constituencies and Mulally tapped their pride and willingness to become part of a "comeback story", a renaissance of a proud history.

In the automobile industry, relations with unions are critical. Mulally and top Ford executives held multiple meetings with top union officials. Negotiation produced a deal that enabled Ford to build more cars in America.

Another key challenge was gaining the support of senior Ford executives, including some who aspired for Ford's top job. Mulally dealt forcefully with this group. He did not hesitate in drawing upon his total support from Bill Ford. When all else failed some executives were asked to leave.

Structurally, Mulally recognized that Ford's existing structural architecture was not taking full advantage of the talent of its people and the strength of its brand. It was riddled with overlapping responsibilities and tangled chains of command. He developed a simpler, tighter global structure and implemented new processes for the top team that clarified where Ford was going and how it would get there. Throughout the structural retooling, Mulally had the full support of Bill Ford. Executives in particular, had little doubt about who was in charge,

During times of corporate upheaval and belt-tightening, employees quickly become demoralized, gossip becomes the only conduit for learning what's going on. During this turbulent times, Mulally became a highly visible coach who recognized the importance of talent in key positions, and of morale throughout the ranks. At headquarters, he was a master of leading while wandering around. He often skipped the executive dining to eat in the company cafeteria, standing in line with his tray and chatting up accountants or sales analysts. He popped into meeting where he wasn't expected and asked, "What are you guys talking about?" To reach the thousands of employees beyond Detroit, Mulally traveled to locations throughout the world, asking questions and reinforcing the message that Ford was coming back.

Symbolically, Mulally recognized that constituents both inside and outside the company needed something to hang onto while sailing through the turbulence and beyond. He (like Lou Gerstner) went back in time to legendary founder Henry Ford to identify and resurrect beliefs and principles that had once made Ford a great company. He found what he was looking for in an ad Henry Ford had run in the 1925 *Saturday Evening Post*, one of

the most popular magazines of the time. Under a picture of an American family standing atop a grassy knoll next to their Model T, the caption read, "Opening the highways to all mankind". In the text, Ford articulated his vision, "A whole-hearted belief that riding the highways should be open to all people".

Like other great symbolic thinkers, he updated a historic legacy, creating the mantra of "One Ford" and drawing people together in a common quest. He became the storyteller and healer providing historical roots, direction and inspiration going forward.

Mulally's achievements at both Boeing and Ford have earned him the reputation as one of the great turnaround artists in business history. He achieved this distinction by his ability to understand complex systems and his ability to look at organizations through multiple lenses.

## Conclusion

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There is little doubt that Complexity Theory can advance our ways of understanding how intricate, multifaceted systems behave. Linking key concepts from the study of complex systems with Organization Theory may complicate things initially, yet produce new insights in the end. In addition, probing the ways leaders make sense of convoluted, volatile circumstances may pave the way for more enlightened leadership. Government agencies, businesses and other organizations today are desperately in need of whatever assistance the behavioral sciences can provide.

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**Dr. Terrence E. Deal** is an internationally renowned speaker and writer specializing in leadership. Dr. Deal's expertise in educational leadership comes both from his time as a teacher, principal, and administrator and from his research as a professor. Dr. Deal earned his Ph.D. in Educational Administration and Sociology from Stanford University and has taught at Harvard, Stanford, and Vanderbilt. He has retired as the Irving R. Melbo Clinical Professor of the University of Southern California's Rossier School of Education. Dr. Deal has written 20 books and over 100 articles and book chapters on organizations, leadership, change, and culture. Many of his books are best-sellers and have been used by corporations and educational organizations around the world to encourage leadership and promote positive change.



# Chapter 1

## Administrative strategies for complex governance systems

*Jack W. Meek & Kevin S. Marshall*

University of La Verne (USA)

### Challenges of making public administration and complexity theory work (COMPACT II)

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**D**evelopments in complexity theory and its relevance to public administration continue to mature. As illustrated by the following contributions, complexity theory informs policy deliberation and its administration. Previous research on policy development (Tait & Richardson, 2009; Morcol, 2012), decision-making (Gerrits, 2012; Rhodes *et al.*, 2012), managing governance networks (Kickert *et al.*, 1997), governance systems (Teisman *et al.*, 2009), public agency management (Keil, 1994) of public service in complex public settings (Meek, 2010) have laid the foundation for managing uncertainties (Klijn & Koppenjan, 2004) and addressing complex, interdependent policy and administrative issues (Meek 2014). The following contributions continue to build on this foundation, as well as illustrate the applicability of complexity theory in the practice of public administration and policy analysis.

Scholars continue to find complexity theory and its many revelations useful in understanding the dynamic connections and relationships among and within interdependent systems of governance involving a multiplicity of collaborative and contrarian actors. Perhaps more importantly, it is through the reciprocating, evolving process of theoretical application that complexity and public administration scholars are advancing more robust



administrative analysis, policy evaluation, and interpretations of public policy. This volume is dedicated to continued research efforts that seek to develop insights from complexity theory and ultimately improve our understanding of public policy, administration and governance.

## COMPACT work

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In terms of background, members of the American Society for Public Administration's (ASPA) Section on Complexity and Network Studies (SCNS) and the research group on Governance of Complex Systems (GOCS) at Erasmus University Rotterdam ASPA/SCNS and GOCS/Erasmus have identified common research interests and have shared their research in various international conferences. Based upon these common interests, in July 2011, Erasmus University in Rotterdam, The Netherlands, sponsored an initial conference titled, *The Challenges of Making Public Administration and Complexity Theory Work* (COMPACT I). Conference participants examined central features of complexity theory relevant to the field of public administration, as well as provided practice applications demonstrating how complexity theory informs public administration and governance. These works were published in the volume *Administration in Complexity* (Gerrits & Marks, 2012).

In continuation of this shared and developing interest in the applicability of complexity theory within the discipline of public administration, the American Society for Public Administration's (ASPA) Section on Complexity and Network Studies (SCNS) and the research group on Governance of Complex Systems (GOCS) at Erasmus University Rotterdam, jointly organized a second research conference titled *The Challenges of Making Public Administration and Complexity Theory Work* (COMPACT II) held at the University of La Verne on June 5-8, 2013. Conference participants presented peer-reviewed papers seeking to advance research demonstrating how complexity theory - including the methods of complexity research and network analysis in public policy—informs governance, public deci-

sion-making and public management. Conference topics included: complexity and metropolitan governance, governance of complex ecosystems, complexity and the art of informing practitioners, complexity thinking and methodological influence and practice challenges. The *conference organizing committee* included the following individuals: Lasse Gerrits (Erasmus University), Chris Koliba (University of Vermont), Göktuğ Morçöl (Penn State Harrisburg), Asim Zia (University of Vermont), Naim Kapucu (University of Central Florida), Erik Johnston (Arizona State University), Mary Lee Rhodes (Trinity University), Jack Meek (University of La Verne), and Kevin Marshall (University of La Verne).

## Administrative strategies for complex governance systems

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The papers selected for this volume—*Administrative Strategies for Complex Governance Systems*—were selected from the 2013 La Verne Conference. The central features of the papers included in this volume focus on strategies significant to policy initiatives/manifestation or policy administration/implementation. These strategies address the implications of boundary decisions in policy design, adaptation in planning and decision making, knowledge integration in complex and cross-sector conditions, and complexity informed policy recommendations in networks and subsystems. A final section offers three articles examining new avenues of potential thinking in regard to complexity theory and public sector governance, policy-making and the study of organizations.

We wish to thank the participants of the COMPACT II conference for contributing their research and enhancing a research environment that allows for the meaningful exchange of ideas. In particular, we wish to thank all of the reviewers of the articles presented in this volume. This volume is a result of two sets of reviews: one set of reviews was carried out prior to the conference and before the papers were presented; a second set of reviews was carried out after the conference in consideration of publication

with this volume. For each paper included in this volume, authors acknowledged the contributions of the reviewers in developing their articles.

In the forward to this collection of papers, Professor Terrence Deal, the internationally renowned writer specializing in leadership, offers an engaging treatment on how complexity theory can build upon past research to further understand how organizations behave in complex environments and how leadership can play a role in enhancing organizational efforts. In his essay, “Complex organizations—Complex thinking,” Professor Deal argues that complexity theory can be matched with organizational theory to enlighten leadership and “make sense of the convoluted, volatile circumstances” they confront.

The articles that follow in this volume are grounded on complexity theory and organized around the following five themes: boundary decisions; adaptation in decisions and planning; approaches to knowledge integration in complex eco-system environments; assessment of complex policy issues and networks, and; new avenues of thinking bridging complexity theory with governance. The closing section of this outlines a comment on the use of methodology when conducting research involving complexity theory.

## Organization of the book

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The articles in this volume are organized into four areas of interest common to the study of complexity: boundary decisions, adaptive practices, knowledge integration, and networks & subsystems. New avenues for complexity theory and governance conclude the volume. The central feature of this volume is the identification of how administrative practices are informed by applications of complexity theory to enhance the opportunities of informed governance.

## Boundaries

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**S**tefan Verweij, Ingmar F. van Meerkerk, Joop F.M. Koppenjan & Harry Geerlings in their paper, “Institutional interventions in complex urban systems: Coping with boundary issues in urban planning projects” examine how three urban planning projects in Rotterdam—planned through institutional arrangements that redrew project boundaries—initially facilitated and then threatened the success of the projects. The authors argue that in establishing projects that calls upon the redrawing of institutional boundaries—typical of multi-jurisdictional urban projects—management must anticipate ways to cope with new challenges that emerge from the redesigned arrangements.

Perry Gross, in “Complex multi-state transportation collaborative,” examines a multi-year, multi-state (California, Nevada, Utah, Wyoming) collaborative convened through virtual environments facilitated by Nevada’s Transportation Department. Seeking a cross-jurisdictional consensus regarding the development of a common transportation structure, the assessment of the collaborative dialogue reveals stakeholder adaptations are evident and that complexity conditions require more time than anticipated.

## Adaptation

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**A** central feature of complex systems is adaptation. How do agents (agencies) or actors adapt to changing environmental conditions? What do agencies do in order to adapt to changing environmental—even dynamic—conditions. Does it matter if agencies have an internal or external orientation to managing events? To address these questions, Verweij and Gerrits, in “Managing unplanned events in large infrastructure projects: Results from an in-depth comparative case evaluation” examine the management of infrastructure projects. These authors seek to go beyond contextual or case study work to improve our understanding of patterns of management across contexts. They do so by examining 18 cases of

the Dutch A2 Maastricht infrastructure project through the use of a multi-value Qualitative Comparative Analysis (mvQCA). The examination illustrates that there are differences in internal-oriented private management and external oriented management in terms of satisfaction outcomes.

In “Decision making in complex public service systems: Features and dynamics,” Jack W. Meek and Mary Lee Rhodes identify both emergent decision rules and structures (referred to as intermediate structures) that are symptomatic of agencies operating in complex environments. Through the examination of seven cases in Ireland and one in the United States, the authors examine factors that influence decision making in complex public service systems in order to distinguish decision processes from those identified in traditional settings.

Nanny Bressers and Jurian Edelenbos in “Planning for adaptivity: Facing complexity in innovative urban water squares” assess how different forms of planning are related to the implementation of innovative urban projects. In their examination, the authors found that planners actively incorporate contingency and (dissipative) self-organization—derivatives of concepts found in complexity theory—along with traditional blue-print planning in approaching the design and implementation of projects. In the assessment of a Water Square project in Rotterdam, these findings lead the authors to assert the need for ‘situational responsive leadership’ that relies upon a mixture of adaptive and traditional project planning elements.

## Knowledge integration

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**D**iana Giebels, Jurian Edelenbos and Lasse Gerrits, in their work, “Understanding the role of knowledge in ecosystem-based management: Ten variables defining its empirical manifestation,” examine the highly dynamic and volatile context of coastal and intertidal venues for administrative decision-makers. Drawing upon 21 randomly selected cases from the OURCOAST program—the authors examine how knowledge plays

a role in each case and outline 10 variables that influenced the use and role of knowledge in decision making.

Extending the work above, Diana Giebels and Victor de Jonge, in “Making ecosystem-based management effective: Identifying and evaluating approaches to the governance of knowledge,” identify, describe and explore four different types of Ecosystem-Based Management (EBM) knowledge governance approaches—holistic, database, alignment, and assessment. In this examination, it is observed that while each approach aims to reach evidence-based decision-making, each knowledge approach implies a different type of planning resulting in differences as to when and how knowledge is connected to the decision-making process. The authors evaluate whether and to what extent each of the planning approaches is capable of coping with ecosystem knowledge challenges—knowledge reflecting the volatile and dynamic character of ecosystems, the lack of knowledge, the uncertainty of knowledge, the contestation of knowledge, and knowledge limited to one institution—rising from the complexity of the socio-ecological system they intend to govern. The authors conclude that these approaches are not sufficient to meet the demands of EBM and additional knowledge management efforts are needed.

## Networks and subsystems

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**A**drian M. Velazquez Vazquez, in his work, “Using complexity theory to reframe immigration policies” examines the often-revised policies that shape the immigration system of the United States. He argues that the multiple interests and perspectives that influence policy development are not reflected nor addressed in current immigration policy. His work offers an analytical framework for public policy that addresses the inherent complexities of societal systems. Indeed, drawing on this case work, he argues that complex issues are inherently heterogeneous issues and require acknowledgement of the diversity of issues, elements, and challenges

that are present so as to advance our policy and administration of complex issues—such as migration to the United States.

Continuing the examination of policy development through the lens of complexity theory, Marcia Godwin, in her work, “Complexity theory and the collapse of policy subsystems: Insights from the rise and fall of redevelopment in California” argues that complexity theory is particularly intertwined with theories of policy change and collapse. Models of complex systems indicate that such systems may experience long periods of apparent stability followed by sudden collapse. Her article draws upon complexity theory and its applicability to non-linear policy changes and applies such insight into the case of local redevelopment policy in California. She argues that such an approach leads to additional insights about both policy change and learning within policy networks.

## New avenues

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**R**aymond R. Bruce, in his article, “Seeing things anew through the lens of energy” invites administrators and policy analysts to visualize and imagine emerging complexities through the lens of thermodynamics. His work is then applied to metropolitan policymaking to illustrate the usefulness of this approach.

Elizabeth Eppel offers an appropriate close to this volume by offering important frames of reference of complexity theory for governance in her work, “Implementing public sector reform: A complexity theory informed approach.” Professor Eppel examines the recent round of public sector reform in New Zealand to explore the need for complexity-informed theory of implementation. Current administrative theories are examined through the lens of complexity theory in an effort to understand and highlight the changes that need to occur to bring about intended reform. Her work highlights the need to understand the fundamental complex nature of re-

form—a system of multiple actors, the continuing effects of past changes, boundaries, feedback, adaptation, coevolution and emergence.

## A comment on methodology for complexity work in governance systems

**A**s a closing comment on this collection of work on the *Administrative Strategies for Complex Governance Systems*, we offer the following commentary on the role of methodology in addressing complex governance systems. As evidenced in the research outlined in this volume, the dynamic nature of public administration and governance implicates a plurality of methodological approaches. It is clear that no single methodological approach can offer the variety of views that are necessary to understand and manage complex governance systems. Indeed, many methodological approaches not utilized in this work—including social network analysis, agent-based simulation, system dynamic modelling—are necessary for the advancement of our understanding of complex governance systems.

In terms of this volume, the methods of choice—complexity friendly approaches to governance systems—rely heavily on case study methodology, including standard case study, multiple case study, qualitative causal-comparative approach, and randomly selected case study (see Table 1 below).

These approaches offer valuable insight into the nature of complex systems and the administrative tools utilized within these systems. Theory development and management capacity are enhanced with these approaches as demonstrated through the use of methods undertaken and the findings outlined herein. A complexity-friendly approach to governance settings is an important undertaking and we can improve our systems with continued study and use of the findings framed within this volume.



Area of Complexity Research	Method/Technique	Application	Contribution	Author(s)
<b>Boundaries</b>	Multiple Case Study	Urban Planning Projects	Original boundary designs (inclusion) influence project success	Verweij, Koppenjan, van Meerkerk, and Geerlings
	Case Study - Decision Process & Dialogue	Cross-State Transportation Collaborative	Participant processes influence quality of decision	Gross
<b>Adaptation</b>	Qualitative Causal Comparative	Case management	Discovery of patterns leading to project success/failure	Verweij, Gerrits
	Multiple Case Study - Interviews	Urban Projects	Emergent Decisions, Use of Intermediate Structures; DM Typology of Organizational Context	Meek, Rhodes
	Case Study	Planning Processes for Urban Water Squares	Adaptive and Traditional Approaches to Planning Need to be Utilized	Bressers, Edelenbos
<b>Knowledge Integration</b>	Randomly Selected, Multiple Case Study	Ecosystem-Based Management (EBM)	Ecological Complexities Necessitate Integrated Knowledge Approaches	Giebels, Gerrits, Edelenbos

	Multiple Case Study	Eco-System Based Management (EBM) Approaches	Assessment of EBM Approaches	Giebels, De Jonge
<b>Networks &amp; Subsystems</b>	Case Study	Immigration	Policy Complexity Implications for Policy Development	Velazquez
	Case Study	Redevelopment	Complexity Theory Highlighting Policy Shifts	Godwin
<b>New Avenues</b>	Case Study	Complexity Theory	Possibilities of Thermodynamics and Complexity Theory	Bruce
	Case Study	Theories of Public Administration	Complexity Implications for Public Administration	Eppel

**Table 1** Complexity oriented research methodology—COMPACT II

As Terrence Deal comments in the Forward to this book, complex organizations need complex thinking. Complex systems need to be attentive to the implications of boundary decisions in policy design; they need to develop the capacity of adaptive planning and learning, and; our agencies need to be externally oriented. And as leadership calls upon both traditional and contingent forms of planning, it is important that we recognize that the complexities of the policy context informs the promulgation and administration of policy. The authors of this volume pursued very challenging inquiries, and in doing so, they contributed to our continuing need to understand complex governance systems and the administrative strategies that are employed within them.

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**Jack W. Meek**, Ph.D. is a Professor of Public Administration, Fellow of the University of La Verne Academy and Director of the Master of Public Administration Program. His research focuses on metropolitan governance including the emergence of administrative connections and relationships in local government, regional collaboration and partnerships, policy networks and citizen engagement. Jack coauthored *Governance Networks in Public Administration and Public Policy* (CRC Press 2011) and coedited *Networked Governance: The Future of Intergovernmental Management* (CQ Press, 2012) and *Business Improvement Districts: Research, Theories, and Controversies* (2008). Jack has also edited symposia on complexity theory in *Emergence: Complexity and Organization* (2010) and coedited a symposium on Integrity in Public Administration in *Public Integrity* (2012).

**Kevin S. Marshall**, Ph.D., J.D., MPA, BA, is a Professor of Law and Fellow of the University of La Verne Academy at the University of La Verne. Professor Kevin S. Marshall teaches Contracts, Sales, Remedies, Corporate Finance, Nonprofit Law and Governance, and Law & Economics. Dr. Marshall also serves as a Lecturer at the University of La Verne College of Business and Public Management where he teaches courses in economics, finance, public policy, organizational theory and quantitative and qualitative research techniques. Dr. Marshall has published and presented numerous books and articles involving the interdisciplinary workings of law and economics. Dr. Marshall's published work has been cited by both state and federal appellate courts, as well as by numerous other published works and secondary sources.





There is an argument that research and practice in Public Administration always involves social complexity, and therefore it can be informed by complexity. There is also an argument that Public Administration, in actuality, is minimally informed by complexity. There is truth to both arguments. Before complexity can inform the field of Public Administration, scholars and practitioners must inquire into the nature of complexity, as well as seek to understand the attributes and constraints of this approach. As this book demonstrates, complexity inquiry provides numerous theoretical frameworks, approaches and associated tools for looking into the black box of causality.

The authors in this edited volume gathered at the University of La Verne (June 2013) to pursue such an inquiry, discussing the relevance of the complexity sciences and how they contribute to pertinent questions in the domains of Public Administration and Public Policy. Their contributions are presented in this edited volume. Each contribution is an attempt to answer the Challenge of Making Public Administration and Complexity work—COMPACT—as reflected in the title. Together, the contributions present an overview of the diverse state of the art in thinking about and research in complex systems in the public domain.

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