

Complexity, Governance, and Networks: Introduction to the Inaugural Issue

Göktuğ Morçöl^a, Geert Teisman^b, and Lasse Gerrits^b

^a *Pennsylvania State University at Harrisburg*

^b *Erasmus University Rotterdam*

1. Yet Another Journal?

Why is it necessary to publish a new journal about complexity, governance, and networks? There has been an increasing interest in complexity, governance, and network studies in recent decades. A number of these studies have been published in most prestigious journals in public policy, public administration, and political science. Also a few journals that specialize in these areas were launched in recent years. So, why this journal? And why now?

The publication of this journal is not only a response to the surging demand for scholarly outlets that publish articles in these areas, but also a response to the need to create a venue to bring together the insights of complexity, governance, and network scholars. *Complexity, Governance & Networks* will serve as an incubator for conceptual and theory development, methodological advancements in these three areas of study, empirical research, and idea exchanges among them for possible future syntheses. The articles that appear in this inaugural issue of the journal demonstrate how much the thinking and methods in these three areas have advanced. The authors, who are well-known experts in their areas, assess the current state of the advancements and possible directions for future research and conceptual development.

2. How This Journal Came About

Complexity, Governance & Networks has deep intellectual and organizational roots. Network studies have a long history in the social sciences; their roots can be traced back to the 1930s. The concept of governance gained popularity more recently, but governance theorists and researchers have already made significant impacts on our understanding of policy and administration processes. Complexity sciences have influenced thinking in the natural sciences and mathematics for at least since the 1970s and they were recognized by public policy and administration scholars as early as the 1990s. The authors of the papers published in this issue discuss the intellectual foundations that were laid down in these areas by many scholars. Some of those scholars are the contributors to this issue of the journal.



The organizational roots of this journal can be found in the works of a group of scholars who organized panels on “chaos and complexity” at the Public Administration Theory Network (PAT-Net) conferences in the mid-1990s. As the interest in these panels began to wane at the PAT-Net conferences, it re-surfaced in other venues. An international workshop on complexity and policy analysis was organized by some of the initial members of the PAT-Net complexity/chaos group in Cork, Ireland, in 2005. Meanwhile a few members of the American Society for Public Administration (ASPA) organized complexity panels at the annual conferences of this association and initiated a section on complexity studies (SCNS). ASPA officially recognized the section in 2008.

These developments in the United States coincided with the establishment of the research group Governance of Complex Systems (GoCS) at the Erasmus University Rotterdam in 2006. This research group includes scholars who are well-known for their contributions to governance and network studies and complexity sciences. The annual conference of ASPA in March 2009 offered an opportunity for some of the members of the ASPA SNCS group and the GoCS group to meet and discuss possibilities of jointly organizing conferences and starting a journal. The first two of these jointly organized conferences were held in Rotterdam (COMPACT I, 2011) and Los Angeles (COMPACT II, 2013). A third conference will take place in Dublin, next year. The long journey of the scholars who organized panels and conferences at both sides of the Atlantic and published numerous articles and books since the 1990s has culminated in the publication of *Complexity, Governance & Networks*.

This is only a milestone in a journey that will continue in many decades to come. We, the editors of the journal, would like to thank Laurenz Baltzer of Baltzer Science Publishers for his support and ever-lasting effort to launch this journal. We intend to make *Complexity, Governance & Networks* the primary reference for future researchers in these areas.

3. Aims and Scope of the Journal

Our journal will contribute to philosophical, theoretical, methodological, and empirical developments in complexity, governance, and network studies in public policy, public administration, and politics, and non-governmental organizations. We welcome manuscripts written from a variety of theoretical perspectives (e.g. rational choice theory, game theory, advocacy coalition framework, Marxist theory, critical theory, etc.). We welcome theoretical essays and empirical studies that employ quantitative methods (e.g. agent-based simulations, system dynamics, social network analyses), qualitative methods (e.g. single and multiple case studies, content analyses), and mixed methods (e.g. qualitative comparative analysis, process analysis).

We also aim to establish a bridge between the worlds of academics and practitioners. Therefore we welcome contributions by both. We intend to publish articles that are based on case studies focusing on examples of complex behaviors and network interactions in

public service settings, as well as reflective pieces on the practical values of complexity, governance, and network theories and methods.

4. Papers in This Issue

The papers in this issue take stock of the state of the developments in the studies on complex governance networks. They also point to future directions in theory and research.

Morçöl makes the case for a complex governance networks conceptualization. After summarizing the contributions in the areas of governance, networks, and complexity studies, he argues that the concepts and methods in them should be synthesized. He also argues that the researchers of complex governance networks should incorporate the insights of well-established theories of policy processes, such as the institutional analysis and development framework and the advocacy coalition framework.

Teisman and Gerrits argue that the complexity of an interconnected society and its governance requires a complexity-informed approach to our domain. Using the concept of “emergence”, they articulate a non-decomposable, contingent, non-compressible and time-asymmetric nature of reality. Subsequently, they propose three methods that take these aspects into account when putting concepts from the complexity sciences to the test: qualitative comparative analysis, dynamic network analysis, and group model building.

Kapucu argues that complex public policy problems require productive collaborations among different actors from multiple sectors. To better understand and guide such collaborations, researchers in public administration should use the concepts and methods of networks and network management. He then briefly discusses the research streams on complex networks, network governance, and current research challenges in public administration.

McGuire and Fyall address more specific issues in the studies on public management networks in contemporary governance. They argue that public management networks do not always possess the capacity to convert collective solutions to formal policy or program adjustments. Government or other powerful agencies can often dominate the management of networks, elected officials may make policy decisions that are inconsistent with the recommended action of networks, and assessing the performance of networks is very often a moving target. The authors discuss the administrative and political barriers that can hinder the ability of public management networks to influence policy making and implementation.

Shrestha, Berardo, and Feiock’s paper illustrates the levels of sophistication in the conceptualizations and methods used in current network studies. The authors discuss the conceptual issues in applying uniplex network analyses in the studies on coordination and cooperation problems associated with institutional collective action. They make the case for multiplex network analyses (analyses of both the formal and informal relationships formed by policy actors) in studying the inherently complex relations in policy networks. Then they propose multiplex versions of “bridging and bonding networks,” which were

found by other researchers to be suitable for solving coordination and cooperation problems in uniplex networks.

The complexity of governance, policy, and public management networks is an undercurrent in all the papers in this issue of the journal. Some of the papers address more specifically the issues in the conceptualizations of complexity. Klijn and Koppenjan, for example, discuss their conceptualization of complexity in governance network theory. They observe that there are three types of complexity in governance networks: substantive, strategic, and institutional complexity. They argue that dealing with these types of complexity in networks is essentially a matter of mutual adaptation and cooperation.

Kiel, one of the earliest contributors to the applications of complexity sciences in public administration and policy, traces the evolution of these applications. Using a four-stage evolutionary model, he tracks the developments in the pertinent literature. He argues that the evolution of the literature has now reached a “proliferant stage” and the concepts of complexity sciences are ripe for further and more advanced applications.

The paper by Zia, Kauffman, Koliba, Beckage, Vattay, and Bomblies is an example of these advanced applications. The authors argue that due to the inherent uncertainty in predicting the evolution of phase-spaces in social-ecological systems (SESs), these systems cannot be “optimally” managed through top-down, command and control type of governance designs. They propose a generalized autocatalytic set theory as an alternative. The authors suggest that a bottom-up, emergent and co-evolutionary framework should be used to design the governance regimes of SESs. They also suggest that policy and institutional interventions can at best enable the policy-makers to nudge SESs towards socially desirable yet ecologically feasible phase-spaces, which in turn are continually revamped as new elements in phase-spaces emerge.

5. Invitation to Publish

The contributions to this issue are good indicators of the state of the advances in governance, networks, and complexity studies. They demonstrate that we have come long way, but we have an even longer way to go. We, the editors and the publisher, invite researchers and theorists around the world to join our journey by contributing to the journal with their most advanced thinking and most sophisticated empirical studies.