

Contents

<i>Figures</i>	<i>page</i> xiii
<i>Tables</i>	xxiii
<i>Preface</i>	xxv
<i>Acknowledgments</i>	xxxv

PART I. INTRODUCTION

1 Social Network Analysis: An Introduction	3
1.1 Introduction	3
1.2 Misconceptions and Differences	6
1.3 Basic Terms and Concepts	8
1.4 Assumptions	14
1.5 Social Networks, Human Agency, and Culture	29
1.6 Summary and Conclusion	31
2 Strategic Options for Disrupting Dark Networks	32
2.1 Introduction	32
2.2 Strategic Options for Disrupting Dark Networks	33
2.3 Crafting Strategies with Social Network Analysis	38
2.4 Summary and Conclusion	44

PART II. SOCIAL NETWORK ANALYSIS: TECHNIQUES

3 Getting Started with UCINET, NetDraw, Pajek, and ORA	49
3.1 Introduction	49
3.2 UCINET	49
3.3 NetDraw	55
3.4 Pajek	62
3.5 ORA (Organizational Risk Analyzer)	69
3.6 Summary and Conclusion	74
4 Gathering, Recording, and Manipulating Social Networks	76
4.1 Introduction	76

x	<i>Contents</i>	
	4.2 Boundary Specification	77
	4.3 Ego Networks and Complete Networks	80
	4.4 Types of Social Network Data	82
	4.5 Collecting Social Network Data	87
	4.6 Recording Social Network Data	91
	4.7 Deriving One-Mode Networks from Two-Mode Networks	102
	4.8 Combining, Aggregating, and Parsing Networks	107
	4.9 Extracting and Simplifying Networks	122
	4.10 Summary and Conclusion	132
	PART III. SOCIAL NETWORK ANALYSIS: METRICS	
	5 Network Topography	135
	5.1 Introduction	135
	5.2 Some Basic Topographical Metrics	137
	5.3 The Provincial-Cosmopolitan Dimension	138
	5.4 The Hierarchical-Heterarchical Dimension	141
	5.5 Estimating Network Topographical Metrics	143
	5.6 Summary and Conclusion	166
	6 Cohesion and Clustering	170
	6.1 Introduction	170
	6.2 Components	171
	6.3 Cores	182
	6.4 Factions	187
	6.5 Newman Groups	194
	6.6 Summary and Conclusion	204
	7 Centrality, Power, and Prestige	206
	7.1 Introduction	206
	7.2 Centrality and Power	211
	7.3 Centrality and Prestige	240
	7.4 Summary and Conclusion	251
	8 Brokers, Bridges, and Structural Holes	253
	8.1 Introduction	253
	8.2 Structural Holes	254
	8.3 Bridges, Bi-Component, and Cutpoints	264
	8.4 Key Players	271
	8.5 Affiliations and Brokerage	277
	8.6 Bridges and Network Flow	282
	8.7 Summary and Conclusion	284
	9 Positions, Roles, and Blockmodels	286
	9.1 Introduction	286
	9.2 Structural Equivalence	287

<i>Contents</i>	xi
9.3 Automorphic Equivalence	289
9.4 Regular Equivalence	292
9.5 Blockmodeling in UCINET, Pajek, and ORA	295
9.6 Summary and Conclusion	315
PART IV. SOCIAL NETWORK ANALYSIS: ADVANCES	
10 Dynamic Analyses of Dark Networks	319
10.1 Introduction	319
10.2 The Longitudinal Analysis of Dark Networks	319
10.3 Fusing Geospatial and Social Network Data	333
10.4 Summary and Conclusion	341
11 Statistical Models for Dark Networks	343
11.1 Introduction	343
11.2 Statistical Models for Social Network Data	348
11.3 Statistical Models in UCINET and ORA	349
11.4 Summary and Conclusion	360
PART V. CONCLUSION	
12 The Promise and Limits of Social Network Analysis	365
12.1 Introduction	365
12.2 The Promise and Limits of Social Network Analysis	366
12.3 Disrupting Dark Networks Justly	367
12.4 Summary and Conclusion	383
Appendix 1: The Noordin Top Terrorist Network	385
Appendix 2: Glossary of Terms	397
Appendix 3: Multidimensional Scaling with UCINET	404
Appendix 4: The Just War Tradition	417
<i>References</i>	421
<i>Index</i>	445