

Contents

<i>List of Figures</i>	<i>page</i> ix
<i>List of Tables</i>	x
<i>Notes on Contributors</i>	xi
<i>Foreword: Algorithms and the Law</i>	
<i>Lord Patrick Hodge</i>	xix
<i>Preface</i>	
<i>Woodrow Barfield</i>	xxiii
<i>Acknowledgements</i>	xxv
<i>List of Abbreviations</i>	xxvi

PART I INTRODUCTION AND SETTING THE STAGE FOR A LAW OF ALGORITHMS

1	An Introduction to Law and Algorithms	3
	Woodrow Barfield and Jessica Barfield	
2	The Opinion of Machines	16
	Curtis E. A. Karnow	
3	Private Accountability in an Age of Artificial Intelligence	47
	Sonia K. Katyal	
4	Algorithmic Legitimacy	107
	Ari Ezra Waldman	
5	Understanding Transparency in Algorithmic Accountability	121
	Margot E. Kaminski	

PART II BUSINESS, REGULATIONS, AND DECISION-MAKING WITH ALGORITHMS

6	Algorithms and Contract Law	141
	Lauren Henry Scholz	

7	Algorithms, Agreements, and Agency Shawn Bayern	153
8	Algorithmic Governance and Administrative Law Steven M. Appel and Cary Coglianese	162
9	Discrimination in the Age of Algorithms Robin Nunn	182
10	Algorithmic Competition, Collusion, and Price Discrimination Salil K. Mehra	199
11	The Rule of Law and Algorithmic Governance Rónán Kennedy	209
12	Governance of Algorithms: Rethinking Public Sector Use of Algorithms for Predictive Purposes Anjanette H. Raymond and Ciabhan Connelly	233
13	From Rule of Law to Statute Drafting: Legal Issues for Algorithms in Government Decision-Making Monika Zalnieriute, Lisa Burton Crawford, Janina Boughey, Lyria Bennett Moses, and Sarah Logan	251
14	Algorithmic Decision Systems: Automation and Machine Learning in the Public Administration David Restrepo Amariles	273
15	From Legal Sources to Programming Code: Automatic Individual Decisions in Public Administration and Computers under the Rule of Law Dag Wiese Schartum	301
PART III INTELLECTUAL PROPERTY AND ALGORITHMS		
16	Inventive Algorithms and the Evolving Nature of Innovation Ryan Abbott	339
17	Software Patenting and Section 101's Gatekeeping Function Andrew Chin	374
18	Intellectual Property at a Crossroad: Awarding IP Protection for Algorithms Aviv Gaon	391
PART IV CRIMINAL LAW, TORT ISSUES, AND ALGORITHMS		
19	The Use of Algorithms in Criminal Adjudication Andrea Roth	407

20	Assessing the Risk of Offending through Algorithms Christopher Slobogin	432
21	Injury by Algorithms Seema Ghatnekar Tilak	449
22	When Do Algorithmic Tortfeasors that Caused Damage Warrant Unique Legal Treatment? Karni Chagal-Feferkorn	471
23	Tort-Law: Applying A “Reasonableness” Standard to Algorithms Karni Chagal-Feferkorn	493
PART V CONSTITUTIONAL LAW, HUMAN RIGHTS, AND ALGORITHMS		
24	Human Rights-Based Approach to AI and Algorithms: Concerning Welfare Technologies Jędrzej Niklas	517
25	Four Modes of Speech Protection for Algorithms Kyle Langvardt	543
26	Algorithms and Freedom of Expression Manasvin (Veenu) Goswami	558
27	Artificial Minds in First Amendment Borderlands Marc Jonathan Blitz	579
28	The First Amendment and Algorithms Stuart Minor Benjamin	606
29	Algorithmic Analysis of Social Behavior for Profiling, Ranking, and Assessment Nizan Geslevich Packin and Yafit Lev-Aretz	632
30	Algorithmic Stages in Privacy of Data Analytics: Process and Probabilities Ronald P. Loui, Arno R. Lodder, and Stephanie A. Quick	654
PART VI APPLICATIONS AND FUTURE DIRECTIONS OF LAW AND ALGORITHMS		
31	Moral Machines: The Emerging EU Policy on “Trustworthy AI” Andrea Renda	667
32	Law in Turing’s Cathedral: Notes on the Algorithmic Turn of the Legal Universe Nicola Lettieri	691

33	Arguing over Algorithms: Mapping the Dilemmas Inherent in Operationalizing “Ethical” Artificial Intelligence	722
	Mariano-Florentino Cuéllar and Robert J. MacCoun	
34	Embodiment and Algorithms for Human–Robot Interaction	736
	Yueh-Hsuan Weng and Chih-hsing Ho	
35	On Being Trans-Human: Commercial BCIs and the Quest for Autonomy	757
	Argyro P. Karanasiou	
	<i>Index</i>	775