

THE CAMBRIDGE HANDBOOK OF COMMONS RESEARCH INNOVATIONS

The commons theory, first articulated by Elinor Ostrom, is increasingly used as a framework to understand and rethink the management and governance of many kinds of shared resources. These resources can include natural and digital properties, cultural goods, knowledge and intellectual property, and housing and urban infrastructure, among many others. In a world of increasing scarcity and demand—from individuals, states, and markets—it is imperative to understand how best to induce cooperation among users of these resources in ways that advance sustainability, affordability, equity, and justice. This volume reflects this multifaceted and multidisciplinary field from a variety of perspectives, offering new applications and extensions of the commons theory, which is as diverse as the scholars who study it and is still developing in exciting ways.

SHEILA R. FOSTER is a Professor of Law and Public Policy at Georgetown University and is an award-winning authority on environmental and climate justice, urban governance, and racial inequality. Foster has served as the co-director LabGov, chair of the Global Parliament of Mayors advisory committee, and a member of the New York City's Mayors Panel on Climate Change.

CHRYSSTIE F. SWINEY is an attorney, legal scholar, and political scientist with an expertise in international and human rights law. She holds graduate degrees from Harvard Law, Oxford, and Georgetown, and has worked in international development for over a decade. Chrystie is a widely published author, with works including a book on the global spread of restrictive NGO laws.

The Cambridge Handbook of Commons Research Innovations

Edited by

SHEILA R. FOSTER

Georgetown University School of Law

CHRISTIE F. SWINEY

Georgetown University School of Law



CAMBRIDGE
UNIVERSITY PRESS



CAMBRIDGE
 UNIVERSITY PRESS

Shaftesbury Road, Cambridge CB2 8EA, United Kingdom
 One Liberty Plaza, 20th Floor, New York, NY 10006, USA
 477 Williamstown Road, Port Melbourne, VIC 3207, Australia
 314–321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre, New Delhi – 110025, India
 103 Penang Road, #05–06/07, Visioncrest Commercial, Singapore 238467

Cambridge University Press is part of Cambridge University Press & Assessment, a department of the University of Cambridge.

We share the University's mission to contribute to society through the pursuit of education, learning and research at the highest international levels of excellence.

www.cambridge.org

Information on this title: www.cambridge.org/9781009295710

DOI: 10.1017/9781108938617

© Cambridge University Press & Assessment 2022

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press & Assessment.

First published 2022

First paperback edition 2023

A catalogue record for this publication is available from the British Library

Library of Congress Cataloging-in-Publication data

NAMES: Celebrating Commons Scholarship (Conference) (2018 : Georgetown University School of Law) | Foster, Sheila R., 1963– editor. | Swiney, Chrystie Floumoy, 1979– editor.

TITLE: The Cambridge handbook of commons research innovations / edited by Sheila R. Foster, Georgetown University School of Law; Chrystie F. Swiney, Georgetown University School of Law.

DESCRIPTION: Cambridge, United Kingdom ; New York, NY : Cambridge University Press, 2021. | Series: Cambridge law handbooks | "This book grew out of a conference organized in 2018 to mark the fiftieth anniversary of Garrett Hardin's *The Tragedy of the Commons*, one of the the most cited articles of the 20th century. The conference was less a celebration of the substance of Hardin's essay than an acknowledgment of how it has shaped a half decade of research and theory. The conference, held at Georgetown University's Law Center in Washington D.C"—ECLIP acknowledgement. | Includes bibliographical references and index.

IDENTIFIERS: LCCN 2021006931 (print) | LCCN 2021006932 (ebook) | ISBN 9781108837217 (hardback) | ISBN 9781108938617 (epub)

SUBJECTS: LCSH: Commons–Congresses. | Natural resources, Communal–Congresses. | Common heritage of mankind (International law)–Congresses. | Sociological jurisprudence–Congresses. | Hardin, Garrett, 1915–2003. *The tragedy of the commons*–Congresses.

CLASSIFICATION: LCC K756.A6 C45 2021 (print) | LCC K756.A6 (ebook) | DDC 333.2–dc23

LC record available at <https://lccn.loc.gov/2021006931>

LC ebook record available at <https://lccn.loc.gov/2021006932>

ISBN 978-1-108-83721-7 Hardback

ISBN 978-1-009-29571-0 Paperback

Cambridge University Press & Assessment has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

Contents

<i>List of Figures</i>	<i>page</i> ix
<i>List of Tables</i>	xi
<i>List of Contributors</i>	xiii
Introduction, Commons Research in the Twenty-First Century and Beyond Sheila R. Foster and Chrystie F. Swiney	1
PART I REVISITING THE ORIGINS AND EVOLUTION OF COMMONS THOUGHT	15
1 Linking the Origins and Extensions of Commons Theory William Blomquist	17
2 The Tragedy of Garrett Hardin's Commons Andrew P. Follett, Brigham Daniels, and Taylor Petersen	26
3 Kinship and Commons: The Bedouin Experience Haim Sandberg	34
PART II AVERTING NEW TRAGEDIES	43
4 Averting Tragedy of the Resource Directory Anti-Commons: A Practical Approach to Open Data Infrastructure for Health, Human, and Social Services Greg Bloom	45
5 Time and Tragedy: The Problem with Temporal Commons Blake Hudson	55
6 Transforming Climate Dilemmas from Tragedy to Cooperation Bryan Bruns	66
PART III NEW FORMS OF CONTESTED COMMONS	77
7 Reimagining Urban Public Housing as a Commons Andrea McArdle	79

8	Humanitarian Aid as a Shared and Contested Common Resource Michelle Reddy	89
9	The Economic System as a Commons: An Exploration of Shared Institutions John Powell	100
	PART IV URBAN LANDSCAPE AND INFRASTRUCTURE AS A COMMONS	111
10	Seeing New York City's Urban Canopy as a Commons: A View from the Street Rebecca Bratspies	113
11	The City as a Commons Reloaded: From the Urban Commons to Co-Cities Empirical Evidence on the Bologna Regulation Christian Iaione and Elena De Nictolis	124
12	Urban Commons Architecture: Collaboration Spaces Innovating Learning within Cities Sofia Croso Mazzucco	138
	PART V REASSESSING OLD AND NEW INSTITUTIONS FOR COLLECTIVE ACTION	153
13	Business Improvement Districts and the Urban Commons Alexandra Flynn	155
14	To Have and To Hold? Community Land Trust as Commons Barbara L. Bezdek	164
15	Ostromian Logic Applied to Civil Society Organizations and the Rules That Shape Them Anthony J. DeMattee and Chrystie Swiney	176
16	A Conceptual Model of Polycentric Resource Governance in the 2030 District Energy Program Erik Nordman	188
	PART VI MANAGING AND RESTORING THE COMMONS	201
17	Management of Facilitated Common Pool Resources in India Pradeep Kumar Mishra	203
18	Social Environmental Dilemmas and Governing the Commons: The Itanhém River Basin in Southern Bahia, Brazil Fernando Rios de Souza and Herbert Toledo Martins	216
19	Social Trust, Informal Institutions and Community-Based Wildlife Management in Namibia and Tanzania Daniel Ogbaharya	226

Contents

vii

20	Restoring the Commons Itzhak E. Kornfeld	242
	PART VII LAW, LEGAL THEORY, AND THE COMMONS	253
21	Prior Appropriation as a Response to the Tragedy of the Commons Robert Haskell Abrams	255
22	Using the Public Trust Doctrine to Manage Property on the Moon Hope M. Babcock	264
23	A Biotechnology “Regulatory Commons” Problem David M. Forman	273
24	Can Affirmative Action Offer a Lesson in Fighting Enclosure? Sheldon Bernard Lyke	284
	PART VIII TECHNOLOGY, THE INTERNET, AND THE FUTURE OF COMMONS GOVERNANCE	293
25	Can Technological Change Weaken the Robustness of Common-Property Regimes? Maija Halonen-Akatwijuka and Evangelos Pafilis	295
26	Internet Governance in the Digital Cold War Scott J. Shackelford and Angie Raymond	309
	<i>Index</i>	319

Figures

4.1 Modes of open resource data production	page 54
6.1 Changes in the ranking of outcomes (payoff swaps) turn Prisoner's Dilemma into Stag Hunt or Chicken, and then into Concord	67
6.2 Climate negotiation games model choices to abate or pollute	70
6.3 The topology of 2 x 2 games shows potential transformations. Payoff swaps link neighboring games	72
6.4 In a microcosm for transforming from pollution to abatement, changes that swap the ranking of outcomes turn tragic conflict in Prisoner's Dilemma into win-win cooperation	74
11.1 Distribution of the pacts across institutional levels (code frequency calculated on AV 280)	130
11.2 Public Community Partnership (percentage on AV 280)	131
11.3 Institutional level across partnership (percentage on AV 280)	131
11.4 Type of intervention (percentage AV 280)	132
11.5 Object of Intervention (percentage on AV 280)	133
11.6 Interventions' object across type of intervention (percentage calculated on AV)	133
11.7 Partnership across type of intervention (AV 194, AV 79, AV 7)	133
11.8 Issues analysis_ interventions realized through the pacts (code frequency, multiple codes)	134
12.1 <i>Urban commons architecture</i> steps	142
12.2 Traditionally, the local red earth defines the village's architecture	142
12.3 Children co-designing their <i>School of Dreams</i>	144
12.4 The local community prototyping the school's architecture with support of the project's architects	145
12.5 Community art-piece comparing collaboration to a healthy body	146
12.6 Illustration of <i>Escola dos Sonhos'</i> lively patio	147
12.7 Children co-mapping by their enriching gaze, familiarizing the architects-facilitators with the neighborhood	148
12.8 Children practicing active citizenship and belonging	150
15.1 Conceptualizing CSOs using an Ostromian framework	179
15.2 Cole's working rules applied to De Jure and De Facto Constitutional Law	186
16.1 Established 2030 Districts as of February 2020	191
16.2 Institutional Analysis and Development framework	195

16.3	Action situation within the Institutional Analysis and Development framework	196
16.4	Institutional Analysis and Development framework annotated with 2030 District elements	198
16.5	Action situation annotated with 2030 District elements	198
17.1	Primary Code Counts by Average Frequency of Mention	207
17.2	An iterative model of developing common property resources with the help of an external agency	213
18.1	Hypsometric map of Itanhém River Basin	218
20.1	Map of Israel and the Alexander Stream (and its Sister Streams)	246
25.1	Major and minor technological improvement	298
25.2	Incentives to cooperate for a major technological improvement	302

Tables

15.1 Rules affecting CSOs' action situations	<i>page</i> 183
16.1 Challenge for planning targets	190
16.2 Rival and exclusive framework for goods and services	193
16.3 Attributes of voluntary programs (from Potoski and Prakash 2009)	194
16.4 Three of the five 2030 districts that reported results have achieved the interim energy goal of a 20% reduction	197
18.1 Factors hypothesized to affect irrigation system management	221
18.2 Design principles, user reality, and the CBHPIJ committee board reality	222

Contributors

Robert Haskell Abrams

Hope M. Babcock

Barbara L. Bezdek

William Blomquist

Greg Bloom

Rebecca Bratspies

Bryan Bruns

Brigham Daniels

Anthony J. DeMattee

Alexandra Flynn

Andrew P. Follet

David M. Forman

Sheila Foster

Maija Halonen-Akatwijuka

Blake Hudson

Christian Iaione

Itzhak E. Kornfeld

Sheldon Bernard Lyke

Herbert Toledo Martins

Sofia Croso Mazzuco

Andrea McArdle

Pradeep Kumar Mishra

Elena De Nictolis

Erik Nordman

Daniel Ogbaharya

Evangelos Pafilis

Taylor Petersen

John Powell

Angie Raymond

Michelle Reddy

Haim Sandberg

Scott J. Shackelford

Fernando Rios de Souza

Chrystie Swiney