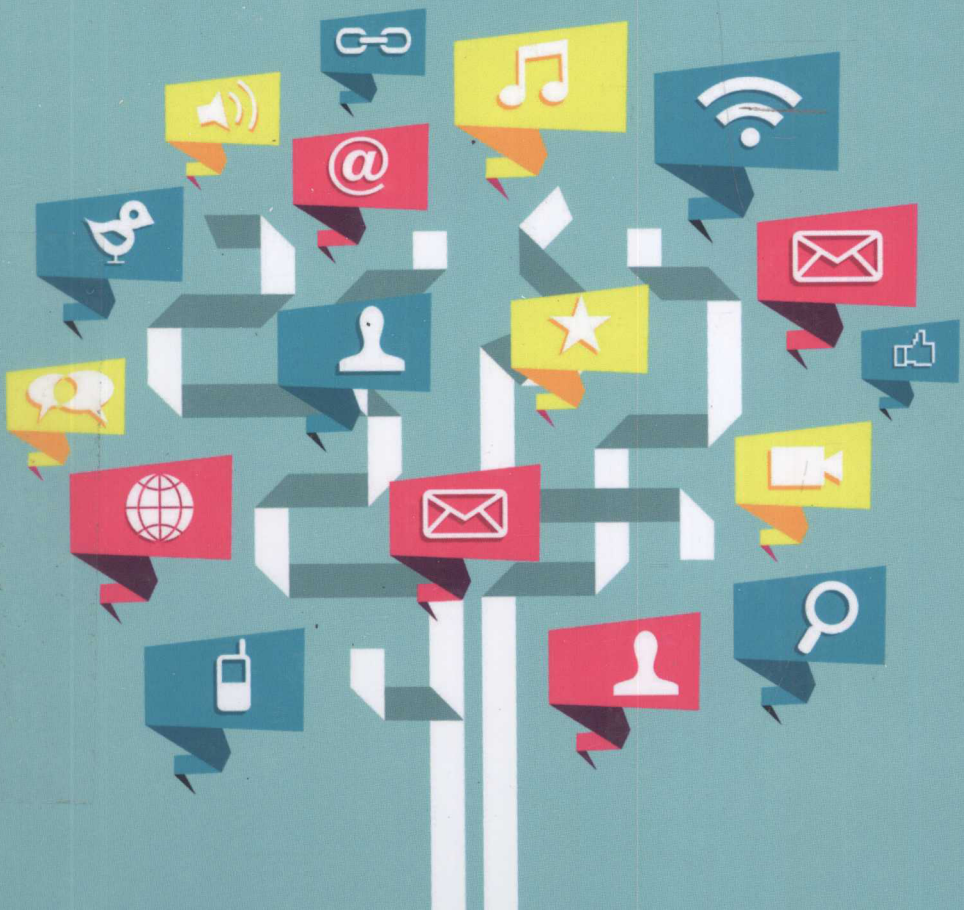# Nonprofit Organizations and the Intellectual Commons

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Preface

The public domain should have its Greenpeace, its Environmental Defense
Fund, its Nature Conservancy, its Environmentally Concerned Scientists.
                                                            – James Boyle

Intellectual commons are intellectual resources, which anyone can use
either without permission, or with permission granted in advance. Since
intellectual commons are crucially important to creativity, innovation, and
human development, the shrinkage of the intellectual-commons environ-
ment will be a profound loss for our cultural freedom. Therefore, protecting
intellectual commons has been one of the most important goals of recent
innovation and information policies. Awareness of this importance has
grown in large measure because of expanding intellectual property (IP)
laws and the growth of digital technology that controls the flow of infor-
mation. Scholars have urged society to reconstruct the public domain that
protects the commons from enclosure, and public-interest advocates have
also sought ways to expand access to various online intellectual resources.
As a result, significant institutional efforts have emerged to preserve the
intellectual-commons environment.

Institutions are among the structures through which a society seeks to
deal with its various problems; therefore, it is important to understand the
effectiveness of alternative forms of institutions, such as the government,
for-profit businesses, and nonprofit organizations (NPOs). By the same
token, in any discussion of preserving and strengthening the intellectual-
commons environment, it is crucial for researchers to understand how
different institutions affect this environment. Over the past twenty years,
the creation of institutions and organizations, such as Creative Commons
(CC), the Electronic Frontier Foundation (EFF), the Free Software
Foundation (FSF), and Public Knowledge (PK) has laid essential building
blocks for intellectual-commons as a social movement. Of importance to
this book, these organizations are primarily NPOs.

This book focuses on the role of NPOs that occupy an increasingly criti-
cal and visible position in the intellectual-commons environment in recent
years. By organizing effective institutional arrangements to enhance the
production, access, use, search-ability, and preservation of diverse intel-
lectual commons, various NPOs have emerged to perform public functions

in public-goods provision, and, perhaps more importantly, their influence sometimes extends beyond the market firm and the state agency. These organizations have unique features enabling them to serve important social aims that neither the private sector nor the government can adequately fulfill. Nonetheless, scholars have tended to overlook the NPO as a topic worthy of theorizing and empirical investigation. Given the importance of NPOs in the intellectual-commons environment, it is surprising how little attention they have received in legal literature.

The aim of this book is to fill that gap. Through a detailed description of these NPOs and a series of in-depth, semi-structured interviews with twenty-three officials from nineteen NPOs and three executives in proprietary businesses, I argue that NPOs have provided the social structures that are necessary to support the production of intellectual commons, and yet differ from the structures supporting the production of proprietary information. Based on current commons and NPO scholarship, I propose that the intellectual-commons environment has provided an "environmental niche" in which NPOs thrive. That is, the nature of NPOs is more consistent with commons-environment culture than that characteristic of for-profits or the government.

I aim to contribute to current scholarship in three aspects. First, I want to highlight the importance of the nonprofit sector in the digitally networked environment, which has been neglected by mainstream IP and Internet law scholarship. Second, researchers from diverse social sciences have adopted and adapted various NPO theories in a variety of philanthropic settings, such as health education, care, and performance arts. Nonetheless, no scholar has tested NPO theories in the intellectual-commons environment. Through applying these theories in a new territory, this study not only broadens the scope of NPO scholarship but also provide new implications for existing NPO theories. Third, by illustrating NPOs' role in shaping the commons realm, this study provides a new lens through which to understand the intellectual-commons environment.

Acknowledgements

I am grateful to many people who helped me take this project from the idea stage to a book. I am especially indebted to my academic mentor at Stanford Law School, Professor Larry Lessig. Without his great guidance, support and patience, I would not have been able to finish this project. By his teaching, writing, enthusiasm, and action, Larry has deeply influenced my thought, value, and attitude toward the world. I also benefited from the insights of two other senior colleagues: Professors Mark Lemley and Mike Klausner. Their active questioning has led me to sharpen and improve my arguments. Mark kindly provided numerous important comments on several early drafts. By taking his classes, I benefited significantly from his encyclopedic knowledge of IP. As a student working on technology law issues, I had the privilege to be invited to Mark's cozy house every year during my stay at Stanford. Mike, on the other hand, helped me to reframe my understanding of nonprofit theories, which is pivotal to the book. Both Mark and Mike have been extremely helpful mentors to me even after I started my academic career in Taiwan.

I would like to express my appreciation to Professor Deborah Hensler, who taught me how to think as a social scientist and provided invaluable comments on the methodology for this book. I received many helpful comments from other friends on earlier drafts as well. For their efforts, I wish to thank Margaret Chon, Joe Grundfest, F. Scott Kieff, Raymond S. R. Ku, Lili Levi, A. Mitchell Polinsky, and Lawrence Rosen.

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I am deeply appreciative of the endless and unselfish support from my parents Yi-Yuan Lee, Li-Li Cheng, Chao-Jung Lin, and Lee-Chu Kuo. I

Abbreviations

ASCAP	American Society of Composers, Authors, and Publishers
ASF	Apache Software Foundation
BMI	Broadcast Music, Inc.
CC	Creative Commons
CPR	Common-Pool Resources
DRM	Digital rights management
EFF	Electronic Frontier Foundation
F/OSS	Free/open source software
FSF	Free Software Foundation
GPL	GNU Public License
IAD	Institutional Analysis and Development
ICANN	Internet Corporation for Assigned Names and Numbers
IPL	Internet Public Library
KEI	Knowledge Ecology International
MIT	Massachusetts Institute of Technology
MIT OCW	Massachusetts Institute of Technology OpenCourseWare
MPAA	Motion Picture Association of America
OER	Open Educational Resources
OSD	Open Source Definition
OSI	Open Source Initiative
PK	Public Knowledge
PLoS	Public Library of Science
SFLC	Software Freedom Law Center
TPF	The Perl Foundation
USPTO	U.S. Patents and Trademark Office
WIPO	World Intellectual Property Organization

Contents

1. Introduction

A. THE EMERGENCE AND IMPORTANCE OF NONPROFIT ORGANIZATIONS IN THE COMMONS DISCOURSE

Intellectual commons are intellectual resources that anyone can use without permission or with permission granted beforehand. Since they are crucially important to creativity, innovation, and human development,[1] the shrinkage of the intellectual-commons environment will be a profound loss for our cultural freedom. A number of scholars believe that '[i]n the cultural environment, commons play a key role, and perhaps a central role ... in mediating competing and complementary individual and social interests.'[2] Therefore, protecting intellectual commons has been one of the most important goals of recent innovation and information policies.[3] Awareness of this importance has increased dramatically

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[1] *See e.g.* Yochai Benkler, *From Consumers to Users: Shifting the Deeper Structures of Regulation Toward Sustainable Commons and User Access*, 52 FED. COMM. L.J. 561, 577 (2000); YOCHAI BENKLER, THE WEALTH OF NETWORKS: HOW SOCIAL PRODUCTION TRANSFORMS MARKETS AND FREEDOM 13–16, 24 (2006); JAMES BOYLE, THE PUBLIC DOMAIN: ENCLOSING THE COMMONS OF THE MIND 192 (2008); LAWRENCE LESSIG, THE FUTURE OF IDEAS: THE FATE OF COMMONS IN A CONNECTED WORLD 14 (2001); Sonali K Shah, *Open Beyond Software, in* OPEN SOURCES 2.0: THE CONTINUING REVOLUTION 339, 353–4 (Chris DiBona et al. ed., 2006); *see also* Michael J. Madison et al., *Constructing Commons in the Cultural Environment*, 95 CORNELL L. REV. 657, 672 (2010) ('in the cultural commons the goal generally goes beyond sustainability to innovation, growth, and progress').

[2] Michael J. Madison et al., *The University as Constructed Cultural Commons*, 30 WASH. U. J. L. & POL'Y 373 (2008).

[3] *See e.g.* James Boyle, *The Second Enclosure Movement and the Construction of the Public Domain*, 66 LAW & CONTEMP. PROBS. 33 (2003) at 40; LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE: VERSION 2.0 198–9 (2006). *See also* LAWRENCE LESSIG, FREE CULTURE: HOW BIG MEDIA USES TECHNOLOGY AND THE LAW TO LOCK DOWN CULTURE AND CONTROL CREATIVITY (2004) (explaining the importance of freedom provided by commons in creative activities); LESSIG, CODE 2.0, at 377–9 (providing abundant literature on the value of intellectual commons in IP systems); Jessica Litman, *The Public Domain*, 39 EMORY L.J. 965, 1023 (1990) (arguing that intellectual commons in the public domain is critically important

because of the expanding intellectual property (IP) laws and the digital technologies that control the flow of information.[4] Such control has been viewed as an 'enclosure movement'[5] or 'information feudalism.'[6] Scholars have urged society to reconstruct the public domain that protects the commons from enclosure,[7] and public-interest advocates have also sought ways to expand access to various online intellectual resources.[8] As a result, significant institutional efforts have emerged to preserve the intellectual-commons environment.[9] The most famous metaphor for this line of argument is probably Professor James Boyle's cultural environmentalism, articulating the need to represent environmental values, such as sustainability and stewardship, in conversations about innovation and IP policies.[10]

Institutions are among the structures through which a society seeks to deal with its various problems; therefore, it is important to understand the effectiveness of alternative forms of institutions, such as the government, for-profit businesses, and nonprofit organizations (NPOs). By the same token, in any discussion of preserving and strengthening the intellectual-commons environment, it is crucial for researchers to understand how different institutions affect this environment.[11] Over the past 20 years, the creation of institutions and organizations, such as Creative Commons (CC) Electronic Frontier Foundation (EFF), Free Software Foundation

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for the operation of a copyright system based on the system's institutional assumptions).

   [4]   *See* Chapter 2 Part B.2.

   [5]   *See e.g.* Boyle, *Second Enclosure Movement, supra* note 3.

   [6]   PETER DRAHOS & JOHN BRAITHWAITE, INFORMATION FEUDALISM: WHO OWNS THE KNOWLEDGE ECONOMY (2002).

   [7]   *See e.g.* BENKLER, WEALTH OF NETWORKS, *supra* note 12, at 25–26; DAVID BOLLIER, SILENT THEFT: THE PRIVATE PLUNDER OF OUR COMMON WEALTH 133–4 (2002); James Boyle, *A Politics of Intellectual Property: Environmentalism for the Net?*, 47 DUKE L.J. 87, 108 (1997); Boyle, Second enclosure movement, *supra* note 3, at 39, 52; BOYLE, PUBLIC DOMAIN, *supra* note 1, at 240–43; Lawrence Lessig, *Re-crafting a Public Domain*, 18 YALE J.L. & HUMAN. 56 (2006) ; Lawrence Lessig, *Forward*, 70 LAW & CONTEMP. PROBS. 1, 1–2 (Spring 2007); *infra* Chapter 2, notes 67–8 accompanying text.

   [8]   *See infra* Chapter 4, Section B.2.

   [9]   James Boyle, *Cultural Environmentalism and Beyond*, 70 LAW & CONTEMP. PROBS. 5, 9 (Spring 2007).

   [10]   Boyle, *A Politics of Intellectual Property: Environmentalism for the Net?*, *supra* note 6.

   [11]   *See* BENKLER, WEALTH OF NETWORKS, *supra* note 1, at 26 (stating that institutional forms may influence human beings' interaction with information production and consumption).

(FSF), and Public Knowledge (PK), has laid essential building blocks for intellectual commons as a social movement.[12] Significantly, these organizations are primarily NPOs.

This book focuses on those NPOs that have occupied an increasingly critical and visible position in the intellectual-commons environment in recent years. Through a detailed description of these NPOs, I argue that such organizations have provided the social structures that are necessary to support the production of intellectual commons and yet differ from the structures supporting the production of proprietary information. By organizing effective institutional arrangements to enhance the production, accessibility, use, searchability, and preservation of diverse intellectual commons, various NPOs have emerged to perform public functions in public-goods provision, and, perhaps more importantly, NPOs' influence sometimes extends beyond the market firm and the state agency. I propose that the intellectual-commons environment has provided an 'environmental niche' in which NPOs thrive. That is, the nature of NPOs is more attuned to commons-environment culture than is the nature of for-profits or of government.

Although NPOs have a unique value for commons production, this book does not suggest that they can or will completely supplant the government and for-profits in the commons environment. Nor does this book suggest that NPOs are adversaries of the market or the state. In fact, the characteristics of these three sectors interpenetrate one another and perform complementary tasks. Their complementary coexistence and relative salience as organizational forms for various social activities determine the allocation of resources in our society.

B. RESEARCH QUESTIONS AND INTENDED CONTRIBUTION

NPOs studied in this book have unique features enabling them to serve important social aims that neither the proprietary sector nor the government may fulfill very well. Nonetheless, scholars have tended to overlook the NPO as a topic worthy of theoretical or empirical investigation. Given the importance of NPOs in the intellectual-commons environment, it is surprising how little attention they have received in the legal literature.

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[12]   Boyle, *Cultural Environmentalism, supra* note 8, at 14–17; BOYLE, PUBLIC DOMAIN, *supra* note 1, at 243–4.

The aim of this book is to fill that gap. Therefore, the primary research question herein is: *How have NPOs crafted the intellectual-commons environment in the digital world?*

In order to answer this question and address relevant theoretical ponders, this study specifically considers the following subsidiary questions:

What are NPOs in the commons environment?
Why do NPOs matter in the commons environment?
Can current NPO theories explain this phenomenon?
*Why is the commons environment an ideal milieu for the flourishing of
    NPOs?*

By answering the above primary and subsidiary research questions, I aim to contribute to current scholarship in three ways. First, I highlight the importance of the nonprofit sectors in the digitally networked environment, a topic that has been neglected by mainstream IP and Internet law scholarship. Second, scholars from diverse social sciences have adopted various NPO theories and adapted them to a variety of philanthropic settings, such as education,[13] healthcare,[14] culture and arts,[15] and securities class actions.[16] However, no scholar has tested NPO theories in the intellectual-commons environment. By applying these theories to a new territory, this study not only broadens the scope of NPO scholarship but also reveals new implications for existing NPO theories. Third, although the importance and development of the commons have drawn extensive attention from academia in recent years, scholars have yet to address the crucial role of formal organizations.[17] By illustrating the role of

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[13]   *See e.g.* Patricia J Gumport & Stuart K Snydman, *Higher Education: Evolving Forms and Emerging Markets, in* THE NONPROFIT SECTOR: A RESEARCH HANDBOOK 462 (Walter W. Powell ed., 2006); Henry B. Hansmann, *Reforming Nonprofit Corporation Law*, 129 U. PA. L. REV. 497, 545-47 (1981).

[14]   *See e.g.* Hansmann, *Reforming Nonprofit Corporation Law, supra* note 12, at 538–43; Mark Schlesinger & Bradford H. Gray, *Nonprofit Organizations and Health Care: Some Paradoxes of Persistent Scrutiny, in* THE NONPROFIT SECTOR: A RESEARCH HANDBOOK 378, *supra* note 12.

[15]   *See e.g.* Paul DiMaggio, *Nonprofit Organizations and Intersectorol Division of Labor in the Arts, in* THE NONPROFIT SECTOR: A RESEARCH HANDBOOK 432, *supra* note 12.

[16]   *See e.g.* Yu-Hsin Lin, *Modeling Securities Class Actions Outside the United States: The Role of Nonprofits in the Case of Taiwan*, 4 N.Y.U. J. L. & BUS. 143 (2007).

[17]   Some literature does focus on informal organizations (such as communities) and on informal institutions (such as social norms).

NPOs in shaping the commons environment, this study provides a new lens through which we can better understand the intellectual-commons environment.

C. METHODOLOGY

Based on a series of in-depth interviews primarily with various officers from NPOs, this book merges two theoretical frameworks, namely commons theories and NPO theories, by analyzing the role of NPOs in the commons environment in a way that is both theoretically informed and empirically grounded.

1. Theoretical Framework

This research is grounded in two primary theoretical frameworks. The first is commons theories, especially those associated with intellectual commons, and the second is NPO theories.

a. Commons theories

Commons theories originate from Garrett Hardin's famous essay 'The Tragedy of the Commons,' which describes how scarce resources open to everyone would be depleted. Hardin's pessimistic outlook on individuals' ability to collaborate echoes economist Mancur Olson's argument that 'rational, self-interested individuals will not act to achieve their common or group interest.' The most common solutions to the tragedy of the commons are regulation or privatization. Regulators can step in and decide who can use the resources. Regulators can also choose to privatize the commons so that owners will seek the most efficient use of the resources.

Nonetheless, not all scholars regard the barriers to collective solutions as insurmountable. Political scientist and *Nobel Laureate* in economics Elinor Ostrom has conducted an in-depth analysis of several long-standing and viable common-property regimes, including Swiss grazing pastures, Japanese forests, and irrigation systems in Spain and the Philippines. She argues that any group attempting to manage a common resource (*e.g.,* aquifers, judicial systems, pastures) for optimal sustainable production must solve a set of problems in order to create institutions for collective action, and there is some evidence that following a small set of design principles in creating these institutions can overcome these problems. In contrast with a commons, where many individuals have privileges of use regarding a certain resource, the 'tragedy of the anticommons' happens when a plurality of individuals have rights of exclusion over a resource and

when the transaction costs of coordinating those rights overwhelm any previously existing benefit.[18] In that scenario, too many people can block each other from creating or using a scarce resource. This is the well-known Institutional Analysis and Development (IAD) framework. The application of the IAD framework analysis results in a deeper understanding of the factors that should be considered policies toward both the traditional commons and intellectual-commons environment.

On the basis of the commons studies, scholars in various fields have produced extensive research literature focusing on disparate aspects of the intellectual-commons environment, such as commons as a social movement, the nature of commons production, and the characteristics of commons communities. By viewing information as a commons, some researchers have acquired a keen insight into both its possibilities and what threatens it.

A significant part of this book rests on the commons scholarship mentioned above. Similar to Elinor Ostrom's approach to the natural environment, this book recognizes the importance of institutions intermediate between private property and state on solving problems of collective problems. Both the collective-action problem in the traditional commons scenario and the tragedy of the anticommons are mirrored in the intellectual-commons environment. Moreover, the norms and nonproprietary nature of the commons communities and commons licensing arrangements provide a solid theoretical basis for the analysis of relevant commons institutions. Lastly, the nonproprietary and community attributes of the commons have created unique links to the nonprofit organizational form.

b. NPO theories
NPO scholars occasionally state that NPOs are supplying a particular good or service. They explore why NPOs exist and how their behavior would differ from for-profits' behavior.[19] The non-distribution constraint is an essential part of most NPO theories. The constraint provides clear distinctions regarding who controls NPOs, how NPOs obtain resources, how NPOs behave in the marketplace, and how donors and clients perceive the marketplace.

The book is rooted in two dominant NPO theories -- contract failure

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[18]   *See e.g.* MICHAEL HELLER, GRIDLOCK ECONOMY: HOW TOO MUCH OWNERSHIP WRECKS MARKETS, STOPS INNOVATION, AND COSTS LIVES 1–2 (2008).
[19]   *See e.g.* Paul J. DiMaggio & Helmut K. Anheier, *The Sociology of Nonprofit Organizations and Sectors*, 16 ANN. REV. SOC. 137, 138–9 (1990).

theory and government and market failure theory. Contract failure arises when trustworthy information about the quality and quantity of a delivered service cannot be purchased. Drawing on contract failure theory, I argue that NPO-derived trust plays a decisive role in commons governance. On the other hand, government and market failure theory defines a potential role for NPOs when governments and for-profits fail to provide certain public goods. This theory provides me with a powerful lens for analyzing various NPO activities in contexts where the government and the market fail to provide the right mixture of public goods for commons development. By examining the robustness of two NPO theories and by touching on related ones, this book illustrates NPOs' active role in the commons context.

2. Empirical Data

The essential data in this research derive from four sources. The first three are publicly available. First, I have reviewed the existing literature with a focus on the commons environment or on specific NPOs. Second, I have read a broad range of news articles related to NPOs in the commons environment. Third, I have browsed the information provided on these NPOs' websites. The most important source of information, however, has been a series of in-depth, semi-structured interviews that I conducted, from June 2007 to July 2008, with 23 officials from 19 NPOs and with three executives from three proprietary businesses.

Of the 26 interviews mentioned above, 17 were conducted via telephone, whereas nine were face-to-face interviews. Each interview lasted a minimum of 30 minutes and some continued for more than one and a half hours. The interview questions were designed to capture information pertaining to the research questions identified above. I should emphasize that it was not my goal to impose on the interviews an artificial structure (regarding the issues covered or the sequence of the issues), nor did I place any artificial time constraints on the interviews. At the beginning of each interview, I sought permission to digitally record the interview and to disclose the identity of the interviewee in the book. I assured each interviewee that she or he need not consent to the recording or the disclosure of identities, and in this way, I ensured strict confidentiality. Nonetheless, all interviewees permitted both my recording and my disclosure of identities in this project. Therefore, all interview results were recorded and transcribed.

I used two methods to select the organizations represented by participants. First, I mapped out the NPOs involved in the commons movement via the public goods they produced. These public goods include social