



INTELLECTUAL PROPERTY RIGHTS

INNOVATION, GOVERNANCE AND THE INSTITUTIONAL ENVIRONMENT



EDITED BY BIRGITTE ANDERSEN

Intellectual Property Rights

Innovation, Governance and the
Institutional Environment

Edited by

Birgitte Andersen

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Contents

<i>List of contributors</i>	vii
Introduction <i>Birgitte Andersen</i>	1
PART I INTELLECTUAL PROPERTY RIGHTS AND THE GLOBAL COMMONS	
1 The market economy and the scientific commons <i>Richard R. Nelson</i>	17
2 Public interest and the public domain in an era of corporate dominance <i>Fiona Macmillan</i>	46
3 AIDS, TRIPS and ‘TRIPS plus’: the case for developing and less developed countries <i>Fabienne Orsi, Mamadou Camara and Benjamin Coriat</i>	70
PART II THE RATIONALES FOR INTELLECTUAL PROPERTY RIGHTS REVISITED	
4 If ‘intellectual property rights’ is the answer, what is the question? Revisiting the patent controversies <i>Birgitte Andersen</i>	109
5 Why do small high-tech firms take out patents, and why not? <i>Lee N. Davis</i>	148
PART III THE PERFORMANCE OF THE PATENTING PROCESS	
6 Knowledge spillovers from the patenting process <i>Jesper Lindgaard Christensen</i>	179
7 The determinants of patentees’ use of ‘continuation’ patent applications in the United States Patent and Trademark Office, 1980–99 <i>Stuart J.H. Graham</i>	215

**PART IV COORDINATING INSTITUTIONS OF
INTELLECTUAL PROPERTY RIGHTS
GOVERNANCE**

8	Public and private institutions in the governance of intellectual property rights <i>Eric Brousseau and Christian Bessy</i>	243
9	The exploration of knowledge networks through patent citations <i>Stefano Breschi, Lorenzo Cassi and Franco Malerba</i>	278
10	Intellectual property rights for governance in and of innovation systems <i>Ove Granstrand</i>	311
	<i>Index</i>	345

Introduction

Birgitte Andersen

We have experienced a growing importance of intellectual capital and intangible assets and an increased tendency for firms and public institutions to privatize, by the use of patents or copyrights, their knowledge assets and creative expressions. Because control over the use of an intellectual property right (IPR) requires ownership or a licence, the growing importance of knowledge-based assets and creative expressions has been accompanied by recognition that patents and copyrights represent strategic assets for those who own and control them. It is therefore not surprising that, in recent years, the pace at which individuals, firms and the public sector are using IPRs to privatize knowledge-based assets and creative expressions has been accelerating. This trend has been enhanced by the view of many in industry, government and international agencies that the privatization of the intellectual capital and knowledge-based assets of individuals and firms provides many advantages (for example, competitive advantage), and we have seen an increased enforcement of IPR regimes worldwide.

At the international DRUID (Danish Research Unit for Industrial Dynamics) conference on *Industrial Dynamics, Innovation and Development*, held at Elsinore, Denmark, 12–14 June 2003, there was a round table discussion regarding the belief systems underpinning IPRs and the increased enforcement of IPR regimes worldwide. The fact that IPR policy has been largely based on the ‘vision’ of policy makers rather than on the findings of solid empirical research was discussed; and within the IPR research community, the social and economic effects of tightening the IPR systems are not considered obvious. Thus, this book, containing contributions presented at the DRUID 2003 summer conference, has emerged because many scholars within the IPR research community believe that there is a need for providing profound insights with respect to understanding the role of IPR regulation in achieving economic performance, growth and sustainable development at the corporate, sectoral and global levels, at the same time as providing a higher quality of life at the level of all groups of civilization in all regions of the world.

Furthermore, by addressing some of the conflicts, contradictions and trade-offs in IPR systems (both in terms of rationales, operation and effects) the contributions to this book challenge the existing mainstream thinking and analytical frameworks dominating the theoretical literature on IPRs within economics, management, politics, law and regulation theory.

This book is cutting edge in addressing current debates affecting businesses, sectors and society today, and in the way it not only focuses on the enabling welfare effects of IPR systems, but also puts special emphasis on some of their possible adverse effects. All contributors to this book share the same fascination, and see the same need, for understanding the dynamic role of IPRs for business and society.

INTELLECTUAL PROPERTY RIGHTS AND THE GLOBAL COMMONS

The global commons are in danger. This is partly due to the role of IPRs in the commodification of three separate areas: science, culture and healthcare. All three areas used to be regarded as important areas of the public domain or for public access. The first three chapters in this book suggest that we need to rethink whether such sectors perform best under the rules of markets and capitalism.

Professor Richard Nelson and Professor Fiona Macmillan have been invited as guest contributors to this book, due to their important contributions in the area of IPRs and the global commons in an era of corporate dominance and privatization of the public domain. Their contributions focus, respectively, on patents and markets for science, and copyrights and markets for creative cultural expressions. Fabienne Orsi, Mamadou Camara and Benjamin Coriat focus on patents and markets for healthcare under the effects of the Trade-Related Aspects of the Intellectual Property Rights Section (TRIPS) of the World Trade Organization (WTO), which came into force in 1994 as a part of the Uruguay Round to enforce intellectual property worldwide. Their contributions will now be described.

In Chapter 1 on *The Market Economy and the Scientific Commons*, Richard Nelson discusses the problem that even though scientific inventions are not in principle allowed to be protected by patents, there is still an increased propensity to patent very fundamental inventions. Thus, in practice, the divide between science and technology is very blurred. Nelson argues that this propensity is partly due to national policies encouraging universities to patent their scientific findings. As an example, he refers to the Bayh-Dole Act of 1980. This is an US Act encouraging universities to patent

their scientific findings and discoveries, and similar types of policies are now adopted worldwide. In particular, he discusses some of the adverse effects of such policies. He basically argues that the increased privatization of scientific inventions or very fundamental knowledge is bad for the advance of both science and technology. The specific natures of science and technology, as well as their co-evolution, are the key to understanding the long-term effects of such policies. It is also important to understand the specific role of universities in this co-evolution. Nelson argues that, even if the Bayh-Dole Act helps certain ends (for example, helps universities and individuals to develop a clear strategy regarding how best to commercialize their ideas), it still has the effect of taking very basic knowledge out of the public domain.

Nelson advocates very strongly that basic scientific findings should be kept in the public domain. Very basic inventions tend to have broader patent scope. If they are patented, prohibiting general use, this can induce a direct welfare loss, as many firms will avoid scientific and technological trajectories where basic knowledge has been made scarce and expensive, or they will be excluded due to exclusive licensing. Nelson argues that it is the openness of basic inventions for multiple exploration paths in the market economy that makes the evolutionary process of technological advance more powerful. Furthermore, he recognizes that many universities today are keen subscribers to the patent system, and that their incentives are more for profit than for technological transfer. However, he argues that it is uncertain whether such policies have facilitated more technological transfer, and even whether they generate profit to universities. Nelson then discusses some strategies relating to the way we can protect the scientific commons. Basically, he rejects the view that universities should, like firms, be driven by profits in markets and therefore join the patent bandwagon which seems to be going on currently in the corporate world. Rather, he suggests a combination of (i) a policy encouraging universities to keep their results open, and letting them co-exist alongside, and compete with, the patented inventions in private firms, and (ii) a policy to roll back the invasion of privatization by discouraging all patenting activities of basic inventions by both public and private organizations. The latter would, however, involve a change in law.

The problem of markets, commons and capitalism continues in Chapter 2 on *Public Interest and the Public Domain in an Era of Corporate Dominance*. Fiona Macmillan maintains that our aim should be to understand the dynamic effects of the exploitation of the general profile of corporate power endorsed by copyrights, and the accountability of that power. She argues that copyright's commodification of creativity has established a structure that enables the domination of cultural output by multinational

media and entertainment corporations. She examines this structure by describing how the current design of copyright regimes facilitates very strong copyrights, and she discusses the conflicting interests of stakeholders, wanting strong copyrights, and the public, needing user rights. She argues that the current structure of strong copyrights and dominance of the media and entertainment corporations over cultural output has had the effect of contracting the public domain, while at the same time undermining some of the rationales for the existence of copyright. In particular, Macmillan discusses the conflict between the economic and moral rationales for copyright. She stresses how it is the focus on, and the dynamic nature of, the economic rationales of copyright law that has caused a corporate dominance over cultural output.

The paper then lays out a strategy to overturn some of these adverse effects of copyright law. Macmillan discusses whether the importance of the economic rationales implemented into the functioning of copyright law can be counterbalanced by the implementation of some of the moral rationales underpinning the philosophy of copyright. Realizing that such a solution may not be sustainable in practice due to the spiralling power of the media and entertainment sectors over cultural products, she argues that we need to think holistically. She considers whether there are other legal approaches, either within the structure of copyright law or external to it, which might be capable of remedying the corporate dominance consequences of copyright's commodification of creativity and thus reclaiming a portion of the public domain. She turns to competition law, corporate law, and, regarding cultural products, media law, and she presents ways that those laws could be implemented to make private power more publicly accountable.

In Chapter 3 on *AIDS, TRIPS and 'TRIPS Plus': The Case for Developing and Less Developed Countries*, Fabienne Orsi, Mamadou Camara and Benjamin Coriat discuss some of the adverse effects of the TRIPS agreement of the WTO, which came into force in 1994 as a part of the Uruguay Round to enforce intellectual property rights worldwide. However, the agreement has been amended over time due to the situation of the less developed and developing countries. Because the latest revised version goes even further than the TRIPS requirements, it is often referred to as 'TRIPS plus'. Orsi, Camara and Coriat examine how TRIPS has provoked a radical change in the healthcare situation of the poorest countries, focusing on the situation created by TRIPS in the French-speaking countries of Sub-Saharan Africa. They argue that in this zone, where AIDS has struck most severely, the application of TRIPS, combined with existing regional IPR agreements (known as the Bangui Agreements), has created a legal situation particularly prejudicial to healthcare. Their paper argues that access to healthcare (in this case, the treatment of AIDS) is determined

by a combination of market forces under particular patent governance structures, institutional capabilities (or lack thereof), strategic interaction, and the bargaining power of individuals, firms and countries. This situation is inherently disadvantageous for less developed and developing countries, which are those with the severest AIDS problems. Thus, if we support the view argued in this chapter that access to healthcare should be a global common good, we need to rethink whether this is a sector that should be ruled by markets and capitalism.

THE RATIONALES FOR INTELLECTUAL PROPERTY RIGHTS

It is important for an IPR regime to have a design which will enable it to achieve its objectives, and consequently an understanding and critical evaluation of the rationales underpinning the IPR system, in terms of policy and corporate goals, is urgently needed. This is important both for assessing the social and economic effects of the IPR systems and when designing policy which will foster a sustainable development of business and society, as discussed by Birgitte Andersen. It is also important for understanding why firms take out patents and why they do not, as researched by Lee Davis. Their contributions will now be described.

In Chapter 4, *'If Intellectual Property Rights' is the Answer, What is the Question? Revisiting the Patent Controversies*, Birgitte Andersen develops a typology of the rationales for IPRs. In this context, she discusses several policy goals or rationales for IPRs: why we have the IPR system, and what the objectives of the system are as well as how it operates. She then examines each of the IPR rationales or policy goals, discussing whether the IPR system really performs in relation to its objectives. In discussing the economic rationales for IPRs (that is, the IPR policy goals), the chapter provides an introduction to belief systems in the mainstream literature of law and economics. It argues that, as IPRs signal prospects for reward, they stimulate incentives to invest in invention and innovation, which in turn stimulate innovation-based competition. Furthermore, it is argued that IPRs facilitate markets for ideas and knowledge as well as creative expressions of ideas, by adjusting for the inherent problems of market failure normally attached to knowledge and intangible expressions of ideas. It is also believed that such commercial exploitation in markets facilitates the spillover of such knowledge-based ideas and creative expressions of ideas, as profit-oriented firms would spread their IPR-protected ideas and expressions as widely as possible for profit purposes. Moreover, as IPRs temporarily protect entrepreneurial talent from imitation (or offer market privileges to them),