The Wealth of Networks:

How Social Production Transforms Markets and Freedom by Yochai Benkler, Yale University Press

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Part III Policies of Freedom at a Moment of Transformation

Epigraph

"Human nature is not a machine to be built after a model, and set to do exactly the work prescribed for it, but a tree, which requires to grow and develop itself on all sides, according to the tendency of the inward forces which make it a living thing."

"Such are the differences among human beings in their sources of pleasure, their susceptibilities of pain, and the operation on them of different physical and moral agencies, that unless there is a corresponding diversity in their modes of life, they neither obtain their fair share of happiness, nor grow up to the mental, moral, and aesthetic stature of which their nature is capable."

John Stuart Mill, On Liberty (1859)

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Part III

Policies of Freedom at a Moment of Transformation

Part I of this book offers a descriptive, progressive account of emerging patterns of nonmarket individual and cooperative social behavior, and an analysis of why these patterns are internally sustainable and increase information economy productivity. Part II combines descriptive and normative analysis to claim that these emerging practices offer defined improvements in autonomy, democratic discourse, cultural creation, and justice. I have noted periodically, however, that the descriptions of emerging social practices and the analysis of their potential by no means imply that these changes will necessarily become stable or provide the benefits I ascribe them. They are not a deterministic consequence of the adoption of networked computers as core tools of information production and exchange. There is no inevitable historical force that drives the technological-economic moment toward an open, diverse, liberal equilibrium. If the transformation I describe actually generalizes and stabilizes, it could lead to substantial redistribution of power and money. The twentieth-century industrial producers of information, culture, and communications like Hollywood, the recording industry, and some of the telecommunications giants - stand to lose much. The winners would be a combination of the widely diffuse population of individuals around the globe and the firms or other toolmakers and platform providers who supply these newly capable individuals with the context for participating in the networked information economy. None of the industrial giants of yore are taking this threat lying down. Technology will not overcome their resistance through an insurmountable progressive impulse of history. The reorganization of production and the advances it can bring in freedom and justice will emerge only as a result of social practices and political actions that successfully resist efforts to regulate the emergence of the networked information economy in order to minimize its impact on the incumbents.

Since the middle of the 1990s, we have seen intensifying battles over the institutional ecology within which the industrial mode of information production and the newly emerging networked modes compete. Partly, this has been a battle over telecommunications infrastructure regulation. Most important, however, this has meant a battle over "intellectual property" protection, very broadly defined. Building upon and extending a twenty-five-year trend of expansion of copyrights, patents, and similar exclusive rights, the last half-decade of the twentieth century saw expansion of institutional mechanisms for exerting exclusive control in multiple dimensions. The term of copyright was lengthened. Patent rights were extended to cover software and business methods. Trademarks were extended by the Antidilution Act of 1995 to cover entirely new values, which became the basis for liability in the early domain-name trademark disputes. Most important, we saw a move to create new legal tools with which information vendors could hermetically seal access to their materials to an extent never before possible. The Digital Millennium Copyright Act (DMCA) prohibited the creation and use of technologies that would allow users to get at materials whose owners control through encryption. It prohibited even technologies that users can employ to use the materials in ways that the owners have no right to prevent. Today we are seeing efforts to further extend similar technological regulations - down to the level of regulating hardware to make sure that it complies with design specifications created by the copyright industries. At other layers of the communications environment, we see efforts to expand software patents, to control the architecture of personal computing devices, and to create ever-stronger property rights in physical infrastructure - be it the telephone lines, cable plant, or wireless frequencies. Together, these legislative and judicial acts have formed what many have been calling a second enclosure movement: A concerted effort to shape the institutional ecology in order to help proprietary models of information production at the expense of burdening nonmarket, nonproprietary production./1 The

new enclosure movement is not driven purely by avarice and rent seeking - though it has much of that too. Some of its components are based in well-meaning judicial and regulatory choices that represent a particular conception of innovation and its relationship to exclusive rights. That conception, focused on mass-media-type content, movies, and music, and on pharmaceutical-style innovation systems, is highly solicitous of the exclusive rights that are the bread and butter of those culturally salient formats. It is also suspicious of, and detrimental to, the forms of nonmarket, commons-based production emerging in the networked information economy.

This new enclosure movement has been the subject of sustained and diverse academic critique since the mid-1980s./2 The core of this rich critique has been that the cases and statutes of the past decade or so have upset the traditional balance, in copyrights in particular, between seeking to create incentives through the grant of exclusive rights and assuring access to information through the judicious limitation of these rights and the privileging of various uses. I do not seek to replicate that work here, or to offer a comprehensive listing of all the regulatory moves that have increased the scope of proprietary rights in digital communications networks. Instead, I offer a way of framing these various changes as moves in a large-scale battle over the institutional ecology of the digital environment. By "institutional ecology," I mean to say that institutions matter to behavior, but in ways that are more complex than usually considered in economic models. They interact with the technological state, the cultural conceptions of behaviors, and with incumbent and emerging social practices that may be motivated not only by self-maximizing behavior, but also by a range of other social and psychological motivations. In this complex ecology, institutions - most prominently, law - affect these other parameters, and are, in turn, affected by them. Institutions coevolve with technology and with social and market behavior. This coevolution leads to periods of relative stability, punctuated by periods of disequilibrium, which may be caused by external shocks or internally generated phase shifts. During these moments, the various parameters will be out of step, and will pull and tug at the pattern of behavior, at the technology, and at the institutional forms of the behavior. After the tugging and pulling has shaped the various parameters in ways that are more consistent with each other, we should expect to see periods of relative stability and coherence.

Chapter 11 is devoted to an overview of the range of discrete policy areas that are shaping the institutional ecology of digital networks, in which proprietary, market-based models of information production compete with those that are individual, social, and peer produced. In almost all contexts, when presented with a policy choice, advanced economies have chosen to regulate information production and exchange in ways that make it easier to pursue a proprietary, exclusion-based model of production of entertainment goods at the expense of commons- and service-based models of information production and exchange. This has been true irrespective of the political party in power in the United States, or the cultural differences in the salience of market orientation between Europe and the United States. However, the technological trajectory, the social practices, and the cultural understanding are often working at cross-purposes with the regulatory impulse. The equilibrium on which these conflicting forces settle will shape, to a large extent, the way in which information, knowledge, and culture are produced and used over the coming few decades. Chapter 12 concludes the book with an overview of what we have seen about the political economy of information and what we might therefore understand to be at stake in the policy choices that liberal democracies and advanced economies will be making in the coming years.

Chapter 11 The Battle Over the Institutional Ecology of the Digital Environment

Institutional Ecology and Path Dependence

A Framework for Mapping the Institutional Ecology

The Physical Layer

The Logical Layer

The Content Layer

The Problem of Security

Chapter 12 Conclusion: The Stakes of Information Law and Policy

Notes

- 1. For a review of the literature and a substantial contribution to it, see James Boyle, "The Second Enclosure Movement and the Construction of the Public Domain," *Law and Contemporary Problems* 66 (Winter-Spring 2003): 33-74.
- 2. Early versions in the legal literature of the skepticism regarding the growth of exclusive rights were Ralph Brown's work on trademarks, Benjamin Kaplan's caution over the gathering storm that would become the Copyright Act of 1976, and Stephen Breyer's work questioning the economic necessity of copyright in many industries. Until, and including the 1980s, these remained, for the most part, rare voices - joined in the 1980s by David Lange's poetic exhortation for the public domain; Pamela Samuelson's systematic critique of the application of copyright to computer programs, long before anyone was paying attention; Jessica Litman's early work on the political economy of copyright legislation and the systematic refusal to recognize the public domain as such; and William Fisher's theoretical exploration of fair use. The 1990s saw a significant growth of academic questioning of enclosure: Samuelson continued to press the question of copyright in software and digital materials; Litman added a steady stream of prescient observations as to where the digital copyright was going and how it was going wrong; Peter Jaszi attacked the notion of the romantic author; Ray Patterson developed a user-centric view of copyright; Diane Zimmerman revitalized the debate over the conflict between copyright and the first amendment; James Boyle introduced erudite criticism of the theoretical coherence of the relentless drive to propertization; Niva Elkin Koren explored copyright and democracy; Keith Aoki questioned trademark, patents, and global trade systems; Julie Cohen early explored technical protection systems and privacy; and Eben Moglen began mercilessly to apply the insights of free software to hack at the foundations of intellectual property apologia. Rebecca Eisenberg, and more recently, Arti Rai, questioned the wisdom of patents on research tools to biomedical innovation. In this decade, William Fisher, Larry Lessig, Litman, and Siva Vaidhyanathan have each described the various forms that the enclosure movement has taken and exposed its many limitations. Lessig and Vaidhyanathan, in particular, have begun to explore the relations between the institutional battles and the freedom in the networked environment.