

*Jeffrey H. Matsuura*



managing

*Intellectual Assets*

in the digital age

# Managing Intellectual Assets in the Digital Age

Jeffrey H. Matsuura



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*With all my thanks for their boundless support and enthusiasm, this book is dedicated to Harry and Tomeko Matsuura, and to Janice, Anne, Fuzz, and Beau—a team that makes the extraordinary possible.*

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# 1

## Introduction: Overview of intellectual property and knowledge assets

### 1.1 Purpose of this book

This book examines challenges and opportunities associated with the development, distribution, and use of intellectual property and knowledge assets. For purposes of this book, intellectual property consists of the creative works that are governed by the principles of traditional intellectual property law: copyrights, patents, and trademarks. Knowledge assets consist of information, knowledge, and know-how that have commercial value but that have not traditionally been governed by intellectual property law principles of copyrights and patents. The intellectual assets that are the focus of this book include both traditional intellectual property and knowledge assets.

Strategies to manage intellectual assets are in a state of flux, largely as a result of the expansion of the Internet and associated computer networks. Wide-scale computer networking alters the process of creation, distribution, modification, and use of intellectual assets. Networking changes the supply of, and demand for, many intellectual assets. In this way, digitization of intellectual assets and integration of those assets into computer networks affect the economic value of the assets. Networks also affect the ability of developers and distributors of intellectual assets to control user

access to those assets. Management of access to those assets (digital rights management) is a major challenge in the networked environment.

This book examines the most significant digital rights management challenges triggered by global computer networking, and it identifies some of the developing rights management strategies aimed at addressing those challenges. Those management strategies begin with traditional intellectual property law principles but also make use of other legal theories and economic incentives. Basic intellectual property law forms the foundation for digital rights management, supplemented by a variety of other legal concepts and commercial strategies. This book provides developers, distributors, and consumers of intellectual assets with information regarding their rights and duties as to the control and use of those assets.

## **1.2 Who should read this book, and why?**

This book can be most helpful for those who have a professional or personal interest in the creation, distribution, or consumption of intellectual assets. That interest may arise from a wide range of sources. It can, for example, stem from a direct interest (e.g., readers who are actual creators or users of intellectual assets, whether they are software developers, Web content creators, or online music aficionados). The interest can also arise from an indirect interest in intellectual assets (e.g., readers who are associated with “intermediaries” or are involved in the distribution of intellectual assets, such as online service providers or media enterprises). Other people who may have an indirect interest in management of intellectual assets are the people who finance the creation or use of those assets (e.g., investors, lenders). Finally, another important group of interested parties includes those involved in the development or enforcement of public policies that affect creation or use of intellectual assets (e.g., legislators, judges, and regulators).

As to the question of why read this book, the answer is relatively simple. Read this book so that you will better understand what intellectual assets are, what current and developing challenges (both legal and economic) affect their creation and use, and what effective strategies for managing commercial use of those assets are emerging. This book does not provide detailed analysis of any one issue but instead attempts to present an understandable overview of many of the most important intellectual asset management issues being faced today. It is not a treatise but is

instead a survey, a primer, or a guide. The book does not offer legal advice, for that the reader should consult counsel familiar with the specific needs and circumstances of the reader. Instead, the book is intended to provide information that can be quickly digested by the reader and promptly applied to the immediate needs of the reader. This book will not give you the answers to all of your intellectual asset management issues; however, it will help you to understand what rights, responsibilities, and opportunities you should be aware of as you develop your strategies for development, management, and use of those assets.

### 1.3 Intellectual property law principles

An important aspect of this book is the relationship between well-established principles of intellectual property law and the management of intellectual assets. Traditional forms of intellectual property have long been protected under copyright, patent, and trademark laws. In order to understand rights and duties associated with control of intellectual assets, a basic understanding of fundamental principles of intellectual property law is required. The law of intellectual property balances the interests of the creators of intellectual property with those of the users of that property. The law provides developers of intellectual content with the exclusive right to exploit that content commercially. This grant of ownership is intended to provide creators of intellectual property with continuing economic incentive for future creative work. Intellectual property law also established certain limited rights of use (e.g., fair use) vested in the users of that property, which could not be eliminated by the creators of that property. This grant of rights to users of intellectual property was intended to promote rapid integration of creative works into new products, resulting in economic growth. In this book, we provide an overview of the ways in which traditional intellectual property law principles are being applied as part of digital rights management initiatives. That discussion examines the impact of application of traditional intellectual property law rights on digital content developers, distributors, and users.

Copyright law provides rights of ownership to the authors of original works that have been fixed in tangible form. Copyright owners possess the following rights with respect to their works: the right to duplicate the work; the right to distribute the work; the right to display, exhibit, or perform the work; and the right to create “derivative works” (i.e., works that are based on the original work, such as a motion picture version of a

book). All of these basic rights are held by the author of the original work immediately upon creation of the work. Among the three core forms of intellectual property law rights, copyright law has been, to date, the most actively applied in the context of digital rights management. As a result, digital copyright issues form an important component of this book.

Copyright law also provides important basic rights for users of copyright protected works. The concept of “fair use” permits individuals to make use of copyrighted works, without the permission of the author, under certain limited circumstances. For example, the doctrine of fair use permits individuals to use portions of the works for educational or scholarly purposes without permission. Fair use also permits use of excerpts of copyrighted works for commentary, news reporting, or satire. All fair use of copyrighted material must be noncommercial in nature and must make only limited use of the material (i.e., use only short excerpts of the material, not the entire work, and limit distribution of the material). Efforts to apply traditional protections for users established by copyright law, including fair use, will be an important and controversial element of future digital rights management debates. Key aspects of this debate are addressed in this book.

Patent law provides rights of ownership to the creators of new inventions that are novel, useful, and nonobvious. Traditionally, patent law provided rights for the inventors of machines (e.g., equipment), processes (e.g., manufacturing procedures), and materials. Patent law also provided rights to the creators of novel designs for products (e.g., design patents). More recently, patent rights have been granted to an expanding array of inventions (e.g., computer programs, business methods, modified living organisms). Some of these newer patent fields have created controversy. For example, business method patents, the patents that cover business practices and processes (e.g., fund allocations, payment systems, billing processes), have inspired a substantial amount of discussion and debate.

Unlike copyrights, patent rights do not exist until an inventor has applied to the government for those rights, and the government has granted the patent rights based on a determination that the invention satisfies the basic patent requirements. After obtaining patent rights, the inventor has the exclusive right to “practice” the invention (i.e., to manufacture, distribute, and use the invention). This right enables the owner of the patent to block other parties from practicing an invention that falls within the scope of the patent. The scope of an issued patent covers the description of how the invention is made and how it functions, along with

the “claims” incorporated into the patent describing what functions the invention performs.

In the past, patent rights came into play in the context of computers and their content, primarily with regard to the development and manufacture of computer equipment. That trend is rapidly changing. Although patent rights applied to computer hardware continue to be a critically important subject, patent rights are also increasingly important in the context of computer software and electronic commerce systems. For example, a list of the most controversial patent law issues associated with the digital rights environment would include the challenge of defining the appropriate scope of patent rights applicable to computer programs and to business methods in the e-commerce setting. Patent law has thus established a much broader scope of applicability with regard to digital rights management than it has traditionally held, and it is reasonable to expect its expanding reach to become still more diverse in the future. These emerging digital patent law issues are addressed in this book.

A third traditional form of intellectual property rights is trademark law. Trademark law permits the developers of commercial names, slogans, logos, and a wide range of other marks to assert enforceable ownership rights over those marks. Trademark law protects commercial marks from use by other parties that could result in confusion on the part of the public. Trademarks are viewed to be commercial identifiers (or signatures) that enable the consuming public to recognize specific companies and their products. Trademark law protects the economic investment that businesses make in creating their commercial marks by empowering those businesses to block use of similar trademarks, when such other use could lead to consumer confusion.

Trademark law also includes the concepts of trade dress and trademark dilution. Trade dress is the portion of trademark law that governs the appearance of packaging and product design. Trademark dilution law permits trademark owners to block use of identical or similar marks when those other uses dilute the economic value of the original mark. Dilution rights can be applied even in those cases where the other use of the mark is not likely to result in consumer confusion. Trademark dilution laws expand the scope of trademark ownership rights, enhancing them so that they protect the economic value of the mark itself, not just the effectiveness of the mark as a commercial identifier.

To date, trademark rights in the digital environment have been enforced primarily with regard to Internet domain names. Trademark

laws, supplemented in some jurisdictions by regulations prohibiting domain name “cybersquatting” have been actively applied to help trademark owners protect their marks from misuse in domain names. In the future, however, we will likely see greater use of trademark law (including dilution and trade dress aspects of trademark law) to assist in the management of an expanding array of digital content. For example, we already see trademark law concepts applied to online keywords and the on-screen appearance of user interfaces. Expect this trend toward broader application of trademark law rights for digital media content to continue in the future. We will examine important aspects of the interplay between trademark law and intellectual assets in this book.

Digital rights management issues and strategies are profoundly affected by these three fundamental forms of intellectual property law. In this book, we examine some of the most important examples of how copyright, patent, and trademark law principles are currently influencing digital rights management. The book also explores the ways in which the expanding universe of digital content will likely test and alter long-held principles of intellectual property law rights in the future. An essential element of any future strategy for management of digital rights is a basic understanding of the principles of intellectual property law rights, and an appreciation of how those rights are dramatically influenced by the expansion of digital content. This book addresses those important elements.

## 1.4 Knowledge assets

We now realize that there are many forms of knowledge and information that have significant economic value but are not governed by traditional intellectual property laws. Operational know-how and collections of information, for example, can have substantial commercial value; however, they are not readily protected under traditional intellectual property law principles. Instead of protection under copyright, patent, or trademark laws, many of these knowledge assets are managed using legal principles, including trade secrets, personal property rights, commercial transactions law, antitrust/competition law, and recently established database ownership regulations. In this book, we examine the ways in which these legal concepts are now applied to digital rights management strategies and to broader strategies associated with knowledge management.

The law of trade secrets has long been applied to provide legal rights of ownership and control over information or knowledge that provides a



commercial advantage. Trade secrets law provides remedies for parties who suffer commercial harm as a result of unauthorized disclosure of proprietary commercial material. The law of trade secrets is highly active in the context of digital content. In this book, we examine how regulation of trade secrets provides an effective tool for the developers of valuable information in the networked environment.

There is a growing trend toward application of traditional concepts of personal property law to intellectual assets. Legal theories such as “trespass” are now commonly applied as remedies for unauthorized access to computers and their content. Property law is developing a broader role in the process of intellectual asset management, and that expanding role is likely to continue into the future. We discuss, in this book, some of the different contexts in which property law principles are being applied to the management of intellectual assets.

The law of contracts and commercial transactions also plays an expanding role in the management of intellectual assets. As intellectual assets become the subject of a rapidly increasing number of commercial sales, contract law and the law of commercial sales have been called upon to govern the relationships between the buyers and sellers of intellectual assets. In the United States, for example, the effort to adopt a standard law for commercial sales of digital content at the state level [i.e., the Uniform Computer Information Transactions Act (UCITA)] has resulted in significant controversy and debate. It appears that this debate is only beginning and remains far from resolution. This book includes discussion of the developing role of commercial law in the management of intellectual asset transfers.

We also see that the law of antitrust and commercial competition plays a growing role in intellectual asset development and management. Antitrust and competition laws provide a legal framework to protect fair competition in the commercial marketplace. As intellectual assets have become more obviously important in commerce, antitrust and competition laws have been called upon, more frequently, to resolve controversies associated with development and distribution of intellectual assets. This book reviews some of the different ways in which the laws designed to protect commercial competition affect intellectual asset management strategies.

The law now also provides a broader scope of coverage for databases and other collections of information. Led by the European Community’s Database Directive, there is now a clearer set of legal rights associated with