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## Background and History

### Development of Intellectual Property Rights and Concepts

Intellectual property is the intangible but legally recognized right to property in the products of one's intellect. Intellectual property rights allow the originator of certain ideas, inventions, and expressions to exclude others from using those ideas, inventions, and expressions without permission. The three traditionally recognized forms of intellectual property are copyright, trademark, and patent. Copyright protects expressive works—movies, music, plays, books, and the like. Trademark protects marks that are placed on goods to distinguish them from other goods, generally by identifying the maker or distributor. Patent protects inventions. Both U.S. and international law also protect less well-known forms of intellectual property, such as trade secrets, know-how, and certain industrial designs.

#### **Copyright: Invention of the Printing Press**

As a practical matter, an author's right to prohibit or profit from the copying of his or her work required little or no protection before the invention of mechanical means of copying. Manually copying books or paintings was too laborious for piracy to be profitable. The invention of copying technologies, however, has led to an ever-escalating legal regime of copyright protection as authors seek to protect their works.

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The first of these technologies was the printing press. Early printing techniques, which were used in China and Japan as long as 1,400 years ago, used block printing: A single block was carved with all of the images and characters on a page. It could then be used to make multiple copies—prints—of that page. The perfection of the block-printing technique can be seen in the world's oldest surviving printed book, the *Diamond Sutra*, published by Wang Jie in AD 868 and bearing the words “reverently made for universal free distribution.” (The *Diamond Sutra*, which is now in the collection of the British Library, can be viewed at <http://www.bl.uk/onlinegallery/ttp/digitisation.html>.) The text is astonishingly clear and can be easily read by any twenty-first century person who can read Chinese, although the use of the language is somewhat archaic and hard to follow.

Although block printing made reproduction of pictures and texts possible, it was the advent of movable type that brought about cheap, high-volume reproduction of printed text and ultimately gave rise to modern copyright laws. In AD 1041, a Chinese inventor named Bi Sheng built the world's first printing press using movable type; about two centuries later the world's oldest surviving book printed with movable text, *The New Code of Etiquette*, was published in Korea by Yi Gyu-bo. Because the Chinese (and, at the time, Korean) language uses thousands of characters, each representing a word, rather than a few dozen letters, setting up pages with movable type in Chinese is more time-consuming, and thus more expensive, than it is for languages that use an alphabet. Korea's adoption of a phonetic alphabet (now called *hangul* but at the time called *hunmin jeongeum*) in 1446 (two years after its invention) made printing with movable type much easier and cheaper. The Korean government responded to this information explosion, and the problem of unauthorized copying, in the same way that the British government would later respond to the same problem: Only government-authorized printers could print books (Choi 2003, 646). The concept of “copyright” in the modern sense seems to have first appeared in Korea in the 1880s, and the end of the government-granted monopoly or oligopoly on printing came with the Japanese annexation in the early twentieth century.

### **The Origin of Anglo-American Copyright Law: The Stationer's Company and the Statute of Anne**

The copyright law of the United States descends from the copyright law of Britain. Between 1430 and 1450, Europeans, including Johannes Gutenberg and Laurens Coster (see Chapter 5), built movable-type printing presses in Europe. Gutenberg published the first of his famous Bibles in 1455. (The British Library's two Gutenberg Bibles may be viewed at <http://prodigi.bl.uk/treasures/gutenberg/search.asp>.) In 1474 the British printer William Caxton published the first book printed in English using movable type—an English translation of Raoul Lefèvre's *The Recuyell of the Histories of Troye*. (The British Library's copy is not yet available online, but a copy of Geoffrey Chaucer's *Canterbury Tales*, printed by Caxton in 1476, may be viewed at <http://www.bl.uk/treasures/caxton/homepage.html>.)

The introduction of movable type to Britain led to the problem of copying, and more than eight decades after Caxton's *Canterbury Tales* was printed the British government opted for the solution that the Korean government had chosen about two centuries earlier (Choi 2003, 646). In 1557 the British government granted the Stationer's Company a royal monopoly on book publishing. This monopoly lasted well over a century, until 1695. By the time the monopoly expired, printing had arrived in the British North American colonies, with the publication of the Eliot Indian Bible (a translation of the Bible into Algonquin) in Cambridge, Massachusetts, from 1661 to 1663.

From 1695, when the Stationer's Company's monopoly expired, until 1710, no copyright law existed in Britain and alternative publishers flourished. The Stationer's Company lobbied for further legal protection, with only partial success. In 1710 the British parliament passed its first copyright act, the Statute of Anne (Leaffer 1999, 4–5).

The Statute of Anne preserved the rights of the Stationer's Company in works already published until 1731 (an additional twenty-one years) but effectively undermined the position of the Stationer's Company by viewing copyright as originating with the writing rather than the publication of the work. The purpose of the statute was to encourage “learned men to compose and

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write useful work.” For works created after the date of the statute, copyright was to endure for fourteen years and was renewable for a second fourteen-year term if the author was still alive at the end of the first. It was not until 1774, however, that the hold of the Stationer’s Company over works it had previously published was finally broken by the holding in *Donaldson v. Beckett* that the term of copyright is invariably finite (Leaffer 1999, 4–5).

### **The Beginning of U.S. Intellectual Property Law: The Patent and Copyright Clause of the U.S. Constitution**

Shortly thereafter, the Constitution of the newly independent United States granted Congress the power “To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries” (U.S. Const. art. I, § 8, cl. 8). This clause, known as the Patent and Copyright Clause, provided the basis for the 1790 Copyright Act, which provided authors and their assignees with copyright protection for books, charts, and maps for a term identical to that set out in the Statute of Anne: a fourteen-year copyright, renewable once for an additional fourteen years. As new technological developments enabled new forms of copying, additional forms of subject matter were added to the Copyright Act. In 1865, for example, photographs were added to the list of copyrightable subject matter.

As Anglo-American copyright law was developing along these lines, however, it was growing increasingly out of step with copyright law on the European continent. While Anglo-American law focused on the benefit of copyright (for a limited term) to society, French law focused on its benefit to the author. Concepts of copyright in France dated back at least to the reign of Francis I, who in 1537 instituted the concept of *dépôt légal*, requiring that all printers deposit a copy of each work they published and offered for sale in France with the Bibliothèque Nationale at the Château de Blois. This *dépôt légal* later served as a form of copyright registration. In the following centuries a state-regulated printing oligopoly developed along the lines of those in Britain, Korea, and elsewhere. By edict of 30 August 1777, the French crown extended printing-monopoly privileges on a quite different basis than that in the Statute of Anne. The right to publish a work was not defined by a set term of years, but if granted to or assigned to a publisher, it lasted for the lifetime of the author, and if granted to and held by the author, it was perpetual (Ginsburg 1990, 997). Decrees

during the French Revolution limited the author's rights somewhat and recognized and expanded the public domain—the body of works not protected by copyright and available for copying (Ginsburg 1990, 1005–1009). Authors in France came to enjoy rights known as moral rights, including the right to be identified as the author of a work, the right to protect the work from changes, and the right to withdraw a work from distribution. In the United States, copyright continued to be viewed as an economic rather than a moral right. The U.S. legal system, while adopting copyright registration requirements derived from the *dépôt légal*, remained unreceptive to moral rights and to the idea of a lifetime (or longer) term of copyright protection.

Despite differences in national copyright laws, however, the ease with which copyrights could be violated outside the country in which they were granted made it increasingly apparent that some sort of international copyright law was needed. In 1886 a group of European countries adopted the Berne Convention, the foundation of the regime that still governs international copyright today—but because U.S. copyright law differed so greatly from that in other countries, the United States was not to join the Convention until another century had passed.

### **The Copyright Act of 1909**

The Copyright Act of 1909 doubled the term of U.S. copyright, from the fourteen-year, once-renewable term originally set by the Statute of Anne to a twenty-eight-year term, also renewable once. It did not, however, adopt the Berne Convention's minimum term (for individually authored works) of the life of the author plus fifty years (Leaffer 1999, 6–7). The 1909 Act also required registration formalities that were inconsistent with the Berne Convention. In addition to these international problems, the Act provided insufficient protection for most unpublished work, resulting in the growth of a system of state law copyright protection for these works (Leaffer 1999, 39).

### **The Copyright Act of 1976 and the 1988 Berne Convention Implementation Act**

In 1955, the United States became a party to the Universal Copyright Convention, an alternative to the Berne Convention, and Congress embarked on what ultimately became a twenty-year project to review and revise U.S. copyright law to bring it into line with international norms. The Copyright Act of 1976, a sweeping

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revision of U.S. copyright law, marked a far more dramatic departure from the Statute of Anne than had the 1909 Act. The 1976 Act eliminated the renewable twenty-eight-year term of copyright, replacing it with the Berne Convention minimum of the lifetime of the author plus fifty years for individually authored works, and with a term of seventy-five years from publication or 100 years from creation, whichever was less, for most other works. It preempted state copyright law, eliminating the cumbersome dual system. And it provided far clearer definitions of the rights of copyright holders, and the limitations to which those rights were subject, than previous statutes. The 1976 Act and a subsequent 1988 statute finally made it possible for the United States to join the Berne Convention, creating a universal copyright regime.

### **Changing the Rules: The Internet**

Just as the United States and the last other major holdouts were joining the Berne Convention, a new information revolution, as dramatic as the invention of printing, was taking place: the advent of home computing and the Internet. Digital computing offered something no other copying technology had been able to offer: perfect copies, without any deterioration in quality, of any work already in digital form. And the Internet made it possible to disseminate these copies far more easily than any previous technology. In a few seconds and at no cost to the copier, a copied work could be made available to every user of the Internet anywhere on the planet.

This new technological revolution has brought a quicker response, in part because of the greater interconnectedness that the Internet itself makes possible. Internationally, treaties promulgated by the World Intellectual Property Organization (WIPO) and the World Trade Organization have addressed the problem of digital piracy. In the United States, additional copyright laws in the Internet era have included the No Electronic Theft Act of 1997, and the Digital Millennium Copyright Act (DMCA) and Sonny Bono Copyright Term Extension Act, both enacted in 1998.

The No Electronic Theft Act of 1997 was enacted to control warez trading. Warez are unauthorized copies of copyrighted computer software. Warez can be unlawfully traded or given away over the Internet or copied onto disks and given away or sold. Although commercial copying was illegal under previously existing law, before 1997 some noncommercial copying had been

beyond the reach of criminal prosecution (*United States v. LaMacchia*, 871 F. Supp. 535). The No Electronic Theft Act greatly expanded the government's ability to impose criminal sanctions on noncommercial warez traders.

The DMCA, a multifaceted and complex revision of copyright law relating to digital works, had five distinct sections, called "titles," four of which addressed copyright in digital works. (The fifth created a new form of intellectual property protection for vessel hull designs [17 U.S.C. §§ 1301–1332].) Title I, the WIPO Copyright and Performances and Phonograms Treaties Implementation Act, was enacted to fulfill the obligations of the United States under two WIPO treaties. One aspect of Title I was especially controversial: the prohibition of the circumvention of technological measures designed to prevent digital copying (17 U.S.C. §§ 1201–1204). This provision, which makes it unlawful to circumvent the copy protection on DVDs, for example, is seen as unfair by many consumers. The prohibition has been extended not only to the sale or free distribution of software that enables copying of protected DVDs, but even to posting links on a website to other sites from which such software may be downloaded (*Universal City Studios, Inc. v. Corley*, 273 F.3d 429).

Title II, the Online Copyright Infringement Liability Limitation Act, addressed the concerns of Internet service providers (ISPs) that they might be held liable for copyright infringement committed on or over their networks. Title II provides a safe harbor from such liability for ISPs that comply with certain requirements (17 U.S.C. § 512). Without such a safe harbor, the ISPs might be unable to function, as policing their networks for copyright-infringing material would be a near-impossible task.

Title III, the Computer Maintenance Competition Assurance Act, provides that a person who activates a computer for purposes of maintenance or repair and makes a copy of a program by doing so is not liable for copyright infringement, provided that the new copy is not used for any other purpose or retained afterward (17 U.S.C. § 117(c)). While this may seem considerably less earthshaking than the safe harbor provisions of Title II or the anticircumvention provisions of Title I, Congress thought it necessary to prevent the creation of vendor monopolies on maintenance of computer equipment after the 1993 decision in *MAI Systems v. Peak Computer*, which had held that the creation of such copies during maintenance could provide a basis for liability for copyright infringement (991 F.2d 511). Title IV of the DMCA was

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something of a catchall, addressing miscellaneous issues including ephemeral recordings and webcasting, copies made for distance education, library and archival preservation and interlibrary loan copies, the effect of transfer of rights in motion pictures on collective bargaining agreements, and certain functions of the Copyright Office (17 U.S.C. §§ 106, 108–110, and 112).

The Sonny Bono Copyright Term Extension Act (sometimes derisively called the Mickey Mouse Protection Act because one of its most notable supporters and beneficiaries was the Walt Disney Company) increased the duration of most copyright terms by twenty years, bringing U.S. terms into line with European Union norms (and exceeding the requirements of the Berne Convention). Under the Act, U.S. copyright law now protects most individually authored works for the lifetime of the author plus seventy years, and most other works for ninety-five years from publication or 120 years from creation, whichever is less (17 U.S.C. §§ 302, 304; see “Duration of Copyright”).

### **Trademark: From Bakers’ Marks to Metatags**

A trademark is a mark that can be placed on goods to distinguish them from other goods. Other marks distinguish other things in commerce: service marks, for example, identify providers of services. The term “trademark” is often used to refer to the legal regime governing all protected marks, and all such marks are sometimes referred to as “trademarks.” The law of trademark in the Anglo-American tradition has more ancient roots than copyright.

The association of a maker’s name or mark with his or her work is probably as ancient as commerce itself. Many trade names still in use today as marks date back more than a thousand years. The Hoshi Ryokan, a Japanese inn, has operated under the Hoshi family’s name—and management—for 1,300 years; the Japanese construction firm Kongo Gumi has been using that name for more than 1,400 years (World’s Oldest Companies 2004). In Europe, well-known beers Lowenbrau and Stella Artois have been marketed under those names since the fourteenth century; the more obscure Weihenstephan dates back to AD 1040.

Modern Anglo-American trademark law, however, had its origin in the Bakers Marking Law of 1266. As the name says, the



law required bakers to place a mark on loaves of bread that they sold, identifying the baker. Originally these marks were intended to protect the public, a rationale that continues to underlie much of modern trademark law. If a loaf of bread was defective or of insufficient weight, the incompetent or unscrupulous baker could easily be tracked down. Not surprisingly, however, these marks came to serve as marketing tools, as consumers sought out the marks of especially competent bakers.

By 1618 the urge to gain market share by counterfeiting a more popular mark had given rise to Britain's first reported decision in a case of trademark infringement: *Southern v. How*, in which a clothier brought an action for deceit against another clothier for using the first clothier's mark to cause potential purchasers to believe the cloth had been made by the first clothier. *Southern v. How* refers to a yet earlier, presumably unreported case involving a similar issue (Austin 2004, 840 n. 51).

Trademark had a rocky start in the United States. The Patent and Copyright Clause of the U.S. Constitution makes no mention of trademark. Although Thomas Jefferson, among others, favored a national law of trademark protection, it was not until 1870 that Congress passed a Trademark Act. Nine years later the Act was struck down as unconstitutional by the Supreme Court (*In re Trade-Mark Cases*, 100 U.S. 82).

In striking down the Trademark Act, the Supreme Court did not reject the idea of trademark protection. Rather, it endorsed the idea of protection of trademarks at the state level, whether through common law (law made by judges in deciding reported cases) or by state statute:

The right to adopt and use a symbol or a device to distinguish the goods or property made or sold by the person whose mark it is, to the exclusion of use by all other persons, has been long recognized by the common law and the chancery courts of England and of this country, and by the statutes of some of the States. It is a property right for the violation of which damages may be recovered in an action at law, and the continued violation of it will be enjoined by a court of equity, with compensation for past infringement. This exclusive right was not created by the act of Congress, and does not now depend upon it for its enforcement. (*In re Trade-Mark Cases*, 100 U.S. at 92)

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The prospect of a continuing regime of different and inconsistent trademark laws in each state, each with its own registration system, was a bit daunting. The Supreme Court did leave Congress an alternative, however. It pointed out that Congressional authority over trademarks could not be based on the Patent and Copyright Clause, because a trademark does not “depend upon novelty, invention, discovery, or any work of the brain. It requires no fancy or imagination, no genius, no laborious thought. It is simply founded on priority of appropriation” (*In re Trade-Mark Cases*, 100 U.S. at 94). Congress lacked all authority to regulate trademark between citizens of the same state. However, it might possess the authority under the Commerce Clause to regulate trademark insofar as it affected commerce between and among states, with foreign nations, and with Indian tribes (see *In re Trade-Mark Cases*, 100 U.S. at 94–95).

Congress missed the hint and, in 1881, enacted a tentative trademark act allowing national registration of marks used in commerce with foreign nations and Indian tribes, but somehow omitting interstate commerce. In 1905 Congress finally allowed national registration of “fanciful” and “arbitrary” marks (but not of merely “descriptive” marks) used in interstate commerce (Berger 2004, 394). Like copyright, however, trademark is necessarily international; companies need protection for their trademarks in all countries in which they do business. In 1910, the United States and several Latin American countries entered into the Inter-American Convention for the Protection of Industrial Property. In 1920, a new Trademark Act was enacted to carry out the obligations of the United States under the convention.

Federal trademark law as it now exists in the United States dates from the Lanham Trademark Act of 1946. Congress, in enacting the Lanham Act, attempted to modernize, simplify, and unify existing federal trademark law and to carry out the obligations of the United States under international law. The Lanham Act was also designed to create an incentive to register trademarks by attaching certain rights to registration (Robert 1996, 375). The Lanham Act itself has been amended several times, most dramatically by the Trademark Law Revision Act of 1988, the Federal Trademark Dilution Act of 1995, the Anticounterfeiting Consumer Protection Act of 1996, the Anticybersquatting Consumer Protection Act of 1999, and the Trademark Dilution Revision Act of 2006.

In the years following the Lanham Act, international trademark law continued to evolve, and the 1988 Revision Act, like the earlier 1920 Act, was aimed at bringing U.S. law into conformity with international law. The 1996 Acts were inspired in part by the increase in global trade. The Anticounterfeiting Act provided remedies for U.S. trademark holders threatened by “counterfeit” trademark-infringing goods originating outside the United States, while the controversial Dilution Act provided a remedy for holders of “famous” marks against those who used the same or similar marks in ways that might “dilute” the strength of the mark. This dilution can occur in two ways: through “blurring,” which causes the mark to lose its distinctive quality, and “tarnishment,” which associates undesirable qualities with the mark. Thus, the Dilution Act can impose liability for trademark dilution even when there is no likelihood that consumers would be confused by the diluting use. This grants a powerful weapon to the wealthiest (in intellectual property terms) trademark holders, which has the potential for misuse to quell legitimate criticism or innocent uses (Greene 2004). In a 2003 case, the Supreme Court questioned whether the federal statute covered dilution by tarnishment; however, in the Trademark Dilution Revision Act of 2006, Congress affirmed that dilution can occur by blurring or tarnishment (*Mosely*, 537 U.S. 418; PL 109-312, 120 Stat. 1730).

The advent of the Internet led to the Anticybersquatting Consumer Protection Act, which addressed the then-new problem of protecting trademark holders from other Internet users who might register the trademark holders’ trademarks as domain names. The Act imposes liability on anyone who, with a bad-faith intent to profit, registers a domain name that creates a likelihood of confusion with or (in the case of “famous” marks) dilutes another’s mark (15 U.S.C. § 1125(d)). This also has the potential for abuse; for example, in Los Angeles, the parents of a two-year-old girl, Veronica Sams, registered the name *veronica.org* to create a website about their daughter, and were sued by Archie Comics Publications, which holds a trademark in the name “Veronica” for one of its characters (Greene 2004, 637). The suit was eventually dropped. The idea that a company could entirely preempt all uses of a given name seems absurd, but many parents confronted with such a suit would be unwilling or unable to contest it and would simply have yielded the domain name.

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The advent of the Internet has also given rise to the abuse of trademarks in metatags and other forms of search-engine spamming. Metatags are text inserted into an HTML document (such as a Web page) in a way that makes them invisible when the document is viewed in the usual way. (To view metatags, if any, on a Web page, select “View/Source” or the equivalent from your browser’s menu bar.) Metatags are mostly used for legitimate purposes, but they can also include the use of a competitor’s trademark to increase the page’s chance of being located by search engines (and rank when located) when people search for the competitor. Search-engine spammers can also use trademarks in other ways to spam search engines (including Google) that do not rely on metatags.

### Patent

Patent, like copyright, has its origins in royal monopolies granted to certain businesses. In medieval Europe some of these monopolies may have been granted in response to innovation in particular fields; however, the first explicit linking of innovation to the grant of a monopoly—and thus the first patent statute in the modern sense—was the Venetian patent statute of 1474. The first known patent had been issued more than fifty years earlier, in 1421, by the city of Florence to Filippo Brunelleschi. Brunelleschi is remembered today as the architect of the Duomo di Firenze, the cathedral of Santa Maria del Fiore. To transport marble for his cathedral, Brunelleschi designed a new type of ship; it was for this that the patent was granted (Nard and Morriss 2004, 8)

The Venetian statute, however, was the first governmental act to systematize the granting of patents. (Some medieval guilds had already done so for their own members.) Although Venice may have granted patents as early as 1416, the 1474 statute provided inventors “who shall build any new and ingenious device in this City, not previously made in our Commonwealth” with the right to prevent all other persons from making the same device (Nard and Morriss 2004, 8 n. 39, 9 n. 47). The term of the patent was set at 10 years, and to receive the patent the inventor had to disclose the way in which the invention was made and operated, so that after the expiration of the ten-year period others could freely copy the invention.

The patent statute may have helped to make Venice a hub of technological innovation and development in the fifteenth and

sixteenth centuries, or it may have arisen because Venice was already well on its way to becoming such a hub. At the same time, however, England was a relative technological backwater. Although a royal patent of monopoly was granted as early as 1449 (by King Henry VI to John of Utynam, for manufacturing stained glass), patent law as a systematic means of rewarding and encouraging invention developed there somewhat later. Throughout the late sixteenth century, patents were granted in England on an occasional basis, as they had been in Venice and Florence in the early and middle fourteenth century. The granting of patents was haphazard; while a patent for a water closet was denied, a patent for vinegar was granted (Nard and Morriss 2004, 33).

By the early 1600s the granting of patents had become a source of contention between Parliament and the Crown. Eventually this conflict led to the 1623 Statute of Monopolies, the Anglo-American legal system's first patent act. The 1623 Statute provided that "the true and first inventor" should have the right to exclude or prevent others from making an invention for a period of fourteen years from the date of the grant of the patent (Statute of Monopolies, reprinted in Dinwoodie 2002, 39–40). This was not a recognition of the rights of inventors outside England; it was restricted to inventions "within this realm," and a patent could be granted to an "inventor" in Britain who merely copied something that had already been done elsewhere (Kaufer 1989, 6–7).

Patent laws based on the Statute of Monopolies were adopted in the British North American colonies, beginning with Massachusetts in 1641. After independence, patent law, like copyright law, was specifically placed under the authority of Congress by the Patent and Copyright Clause of the U.S. Constitution, which gives Congress the power to make laws "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries" (Const. art. I, § 8, cl. 8). The first patent statute, in 1790, marked a departure from the Statute of Monopolies. The 1790 Act focused not on the right of the sovereign to grant monopolies, but on the right of the individual inventor to his (or, somewhat later, her) invention. The Act also required an official examination before a patent could be granted, although this requirement was eliminated in 1793 and not reinstituted until 1836 (Kaufer 1989, 8).

A patent, like a copyright or a trademark, is initially limited to the territory of the sovereign granting it, yet it may be infringed

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upon by persons outside that territory. Like copyrights and trademarks, patents require international protection if they are to be effective in a global economy. At the outset of the nineteenth century there was considerable international pressure against the adoption of patent laws. This antipatent movement attempted to repeal patent laws in the German states, successfully resisted six attempts to introduce a patent law in Switzerland, and succeeded (in 1869) in repealing the patent law of the Netherlands (Kaufer 1989, 8–10). By the end of the nineteenth century, however, the antipatent movement had been defeated, and the Paris Convention for the Protection of Industrial Property created the beginnings of a global patent regime that covered much of Latin America, North America, and Europe, including even Switzerland.

In the United States, the establishment of the U.S. Patent Office by the 1836 Patent Act marked the beginning of modern patent law. A subsequent Patent Act, in 1870, unified and simplified existing law but made little substantive change. Patent law, like copyright law, has continued to undergo modification to adapt to new technologies. Occasionally these adaptations prove controversial, as with the patenting of computer programs (discussed in detail in Chapter 2); living organisms (permitted since 1930 by the Plant Patent Act); or business methods (required under the Treaty on Trade Related Aspects of Intellectual Property Rights, or TRIPs, and permitted by the Federal Circuit's decision in *State Street Bank & Trust Co. v. Signature Financial Group*). The U.S. Patent and Trademark Office (as it has been called since 1975) has also been subject to domestic and international criticism for its perceived laxness in granting patents.

# Intellectual Property Law in the United States Today

## Copyright Overview

Copyright, as the name says, is the exclusive right to make copies of a work. The term “copyright” today also covers several other rights, including the right to perform or display a work, the right to publish or otherwise distribute a work, the right to digitally broadcast a work, and the right to create derivative works based on a work (17 U.S.C. § 106). These rights—the right to copy,

distribute, perform, display, and make derivative works—can collectively be described as “economic rights.” Another category of rights, called “moral rights,” includes the right to be acknowledged as the author of a work, the right to decide when and in what form the work shall be presented to the public, and the right to prevent the work from being altered or distorted. Moral rights have not traditionally been protected in U.S. copyright law, although some moral rights in certain works, especially works of visual art, have been protected (17 U.S.C. § 106A).

### **Copyrightable Subject Matter: What Can Be Copyrighted**

Copyright protects “Original works of authorship fixed in any tangible medium of expression” (17 U.S.C. § 102). In other words, to be protected by copyright under U.S. law, a work must possess three qualities: It must be original, it must be a work of authorship, and it must be fixed in a tangible medium of expression.

The “originality” requirement for copyright protection is minimal. Compiling cases in a case reporter in a particular order, together with the resulting page numbering, may satisfy the requirement (*Oasis*, 924 F. Supp. 918). The requirement is not non-existent, however. In the 1991 case of *Feist Publications v. Rural Telephone Service Co.*, the U.S. Supreme Court rejected the idea that copyright can be a reward for hard work in the absence of originality (499 U.S. 340). Copyright, the Supreme Court held, cannot be based on the “sweat of the brow” of the creator of a work. The “originality” in *Feist* consisted of arranging names in a telephone directory in alphabetical order; this was insufficiently original to support a claim of copyright.

A list of “works of authorship” can be found in the Copyright Act (17 U.S.C. § 102(a)), including

1. literary works;
2. musical works, including any accompanying words;
3. dramatic works, including any accompanying music;
4. pantomimes and choreographic works;
5. pictorial, graphic, and sculptural works;
6. motion pictures and other audiovisual works;
7. sound recordings; and
8. architectural works.

Computer programs have been protected as literary works, defined in 17 U.S.C. § 101 as “works, other than audiovisual

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works, expressed in words, numbers, or other verbal or numerical symbols or indicia" (17 U.S.C. § 101; *Williams Electronics*, 685 F.2d 870). This protection has been extended to operating systems as well as applications (*Apple Computer*, 714 F.2d 1240).

To be "fixed in a tangible medium of expression," a work must be recorded "by or under the authority of the author," in a form "sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration" (17 U.S.C. § 101). The fixed work need not be readable by the unaided human senses; a work is fixed in a tangible medium even if it can only be perceived with mechanical or electronic assistance (*Williams Electronics*, 685 F.2d 870; *Midway Manufacturing*, 704 F.2d 1009). Thus, computer programs and sound and video recordings on CDs, tape cassettes, DVDs, and other magnetic, optical, and electronic media are all "fixed" for copyright purposes. Live broadcast works can also be "fixed" for copyright purposes: "A work consisting of sounds, images, or both, that are being transmitted, is 'fixed' for purposes of this title if a fixation of the work is being made simultaneously with its transmission" (17 U.S.C. § 101).

Some subject matter is specifically made noncopyrightable even if it otherwise appears to meet the statutory requirements of originality, work of authorship, and fixation. Copyright will not protect "any idea, procedure, process, system, method of operation, concept, principle, or discovery," even if embodied within an otherwise copyrightable and copyrighted work (17 U.S.C. § 102(b)). Although a particular and original expression of an idea can be copyrightable, when an idea can be expressed in only a limited number of ways, the idea and the expression merge and the expression is uncopyrightable (*Baker*, 101 U.S. 99; *NEC*, 10 U.S.P.Q.2d 1177). Certain works may also be uncopyrightable under the *scènes à faire* doctrine.

Procedures, processes, systems, and methods of operation, to the extent that they can be protected as intellectual property, are more properly the subjects of patent than of copyright—although the unavailability of copyright does not mean that a particular procedure, process, system, or method is eligible for patent protection. Concepts and principles may not be protectable at all, except perhaps as trade secrets, while "discovery" is used in the Patent Code as a synonym for "invention" (35 U.S.C. § 100). Uncopyrightable methods of operation include the menu command hierarchy of a computer program (*Lotus Development*, 140 F.3d 70).



Operating systems, however, are, as already noted, copy-rightable. They are not mere methods of operation but are protected literary works (*Apple Computer*, 714 F.2d 1240).

*Scènes a faire* are works, or more often portions of works, that are dependent on basic, common ways of treating particular subject matter to such an extent as to render them uncopyrightable (*Hoehling*, 618 F.2d 972; *Data East USA*, 862 F.2d 204). A video game based on the sport of karate, for instance, must include certain types of kicks and punches; these moves are *scènes a faire* and cannot be copyrighted (*Data East USA*, 862 F.2d 204). Similarly, a book or movie about the Hindenburg airship disaster is likely to include images of German soldiers drinking in beer halls, saying “Heil Hitler” and singing the German national anthem. These images are *scènes a faire*; they are a standard part of any depiction of Germany in the Nazi era, and thus cannot be copyrighted (*Hoehling*, 618 F.2d 972).

### Copyright Formalities

Previously, U.S. law imposed notice and registration formalities as a prerequisite for copyright protection. To obtain a copyright under modern U.S. law, however, it is necessary to do nothing more than to fix one’s original work of authorship in a tangible medium of expression. This will afford the author copyright protection not only in the United States but also, subject to local law, in all of the countries that are parties to the Berne Convention. However, copyrights may still be registered with the U.S. Copyright Office, a division of the Library of Congress. (Forms for various types of copyrightable works can be downloaded from the Copyright Office’s website at <http://www.copyright.gov/register/>.) For most works, registration requires a completed application form, a fee of \$45, and one copy (for unpublished works, works first published outside the United States, and collective works or contributions thereto) or two copies (for most other works first published in the United States) of the work to be registered (U.S. Copyright Office 2006a). Special rules apply to online publications, computer programs, and databases. Special provisions have been made to allow computer programs to be registered without disclosing all of the program’s source code (U.S. Copyright Office 2006b). The fee, completed form, and copy or copies of the work must then be sent to the Copyright Office. Special fees apply to serial publications, newspapers, changes to existing registrations, and expedited requests.

The Berne Convention Implementation Act of 1988 eliminated the notice requirement for works fixed after 1 March 1989. For earlier works, notice was required, and works first fixed before that date may have fallen into the public domain if notice of a claim of copyright was not affixed. For these earlier works, the copyright notice should take the form of the word “Copyright” (or “Copr.”) or the copyright symbol “©” along with the year of first publication (for most works) and the name of the copyright owner or other information sufficient to identify the owner (17 U.S.C. § 401(b)). For later works, even though notice is not required, it is generally a good idea to include a notice of a claim of copyright along with sufficient information to enable a reader to identify and contact the copyright holder. This warns potential copiers and facilitates licensing of the work.

### **Exclusive Rights of the Copyright Holder**

The copyright holder has economic rights in the work, including the right to control the copying, distribution, performance, or display of the work and the making of derivative works. For example, Acuff-Rose Music, Inc., which owns the copyright in the 1964 Roy Orbison song “Pretty Woman,” has the right to prevent others from making copies of the song and selling those copies at flea markets or offering them for download over a file-sharing network. (Several sets of rights are actually involved here: the rights of the composer of the music, the rights of the writer of the lyrics, and the rights of the performing artist. Unraveling the complex sets of rights involved in music copyright is a daunting task, but an excellent book on the subject is *Kohn on Music Licensing* [see Chapter 8].) The holders of the copyright in “Pretty Woman” have the right to prevent other musicians from performing the song, unless those musicians first obtain permission, as Van Halen did when it covered the song in 1982. The copyright holders have the right to license the making of derivative works, including a movie drawing its title and general theme from the song, such as the 1990 movie *Pretty Woman*, starring Richard Gere and Julia Roberts. Visual artists also have limited moral rights in their works, including the rights of integrity and attribution under the Visual Artists Rights Act of 1990 (17 U.S.C. § 106A).

However, there are limitations on these exclusive rights. The right of first sale allows the purchaser or other lawful recipient of a licensed copy of a work to sell, give away, destroy, or otherwise dispose of that copy. A person who is dismayed to find a record-

ing of Roy Orbison's "Pretty Woman" in his or her Christmas stocking may turn around and regift that copy to someone else (17 U.S.C. § 109(a)).

More worrisome to the content industry is the right of fair use. While the right of first sale is not a right to copy, the right of fair use permits the copying of a copyrighted work "for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research" (17 U.S.C. § 107). The statute provides that

In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include—

- (1) the purpose and character of the use, including whether such use is of a commercial nature or is for non-profit educational purposes;
- (2) the nature of the copyrighted work;
- (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- (4) the effect of the use upon the potential market for or value of the copyrighted work.

These factors are a bit fuzzy, and determining the boundaries of fair use has been and continues to be the source of much work for the courts. Among the fair uses of the song "Pretty Woman," however, are space shifting, time shifting, and parody. If you have a lawfully obtained, licensed copy of "Pretty Woman" on CD, you may copy it onto a tape cassette to play in your 1983 Toyota Corolla, which lacks a CD player. You may also copy it onto your computer to play at work (but not to upload to a file-sharing service) or onto your MP3 player to listen to while you work out. These uses—transferring the licensed copy to another medium for use in another player—are space-shifting uses. When the copy will be used by the same person, space shifting has been held to be fair use (see *Recording Industry Association of America v. Diamond Multimedia Systems, Inc.*, 180 F.3d 1072).

Time-shifting is similar. If you know the movie *Pretty Woman* will be broadcast by a local television station at 1 p.m. on a work-day, and you want to watch the movie, you may set your TiVo or VCR to record it, then watch the show when you return home from work. This is time shifting, and it has also been held to be fair use (see *Sony*, 464 U.S. 417).

Acuff-Rose Music also lacks the power to protect Roy Orbison's song from mockery. When the early rap group 2 Live Crew requested Acuff-Rose's permission to create a parody of the song, Acuff-Rose denied permission. Without permission, 2 Live Crew wrote, recorded, and distributed the parody, and Acuff-Rose, predictably, sued. The U.S. Supreme Court held that parody, within certain limits, can be fair use and is protected by the First Amendment's guarantee of freedom of expression (*Campbell*, 510 U.S. 569).

The disassembly of a computer program to reverse engineer for compatibility has also been found to fall within the parameters of fair use (*Sega Enterprises*, 977 F.2d 1510; *Sony Computer*, 203 F.3d 596). In addition to the fair-use exception in 17 U.S.C. § 107, the copyright code also provides exceptions to the exclusive rights of the copyright holder for copies of software made as backups or for diagnostic or maintenance purposes (17 U.S.C. § 117) and for copies made by ISPs in the routine course of information transmission, storage, caching, or location (17 U.S.C. § 512).

Recent court battles related to fair use have tended to fall into three categories: (1) attempts by content owners to restrict or prohibit the sale of copying devices; (2) the ongoing battle over file sharing; and (3) disputes arising from the DMCA's provisions on the circumvention of technological copy-protection measures (17 U.S.C. § 1201). Examples from each of these categories are discussed in Chapter 2.

### Copyright Infringement

A person who violates an exclusive right of the copyright owner has committed copyright infringement. In other words, the unauthorized copying, distribution, performance, or display of a copyrighted work, or the unauthorized making of a derivative work, is infringement unless it falls within a statutory exception such as those already described. Importing infringing copies of a work made outside the United States (even if made legally in some other country) into the United States is also infringement (17 U.S.C. § 501(a)). Infringement can give rise to a civil lawsuit by the copyright holder or a person authorized to enforce the copyright holder's rights (17 U.S.C. §§ 501–505) and to criminal prosecution in some cases (17 U.S.C. § 506).

The person committing the actual violation is a direct infringer. Indirect infringers may also be liable as contributory in-

fringers or as inducing infringers. Contributory infringement requires that the contributory infringer have actual or constructive knowledge of an underlying direct infringement by some other person, and that the contributory infringer make a material contribution to the direct infringer's activities (*Fonovisa*, 76 F.3d 259). Contributory infringement may also be found where one person intentionally induces or encourages a direct infringement. This can be done by distributing a device (including a computer program) with the object of promoting its use to infringe copyright (*MGM v. Grokster*, 125 S.Ct. at 2776, 2780).

Vicarious infringement also requires an underlying direct infringement and further requires that the vicarious infringer have the right and ability to control the direct infringer's actions and receive a direct financial benefit from the infringing activity (*Fonovisa*, 76 F.3d 259). In recent years the content industry has used lawsuits for contributory and vicarious copyright infringement liability as its main weapon against peer-to-peer (P2P) file-sharing networks (discussed in Chapter 2).

A civil suit for infringement, whether direct or indirect, can lead to injunctive relief, the confiscation of infringing copies, and an award of money damages. Serious infringements may also lead to an action for criminal copyright infringement, which occurs when the infringement is committed

(1) for purposes of commercial advantage or private financial gain, or (2) by the reproduction or distribution, including by electronic means, during any 180-day period, of 1 or more copies or phonorecords of 1 or more copyrighted works, which have a total retail value of more than \$1,000. (17 U.S.C. § 506(a))

Penalties for criminal copyright infringement can include forfeiture and destruction of infringing copies and copying equipment, fines, and prison terms (18 U.S.C. § 2319).

### **Duration of Copyright**

The current duration of copyright terms under U.S. law is set by the Sonny Bono Copyright Term Extension Act of 1998. The Act sets the term for copyrighted works created after 1 January 1978 at the lifetime of the author plus an additional 70 years for most individually authored or coauthored works, and a term of 95 years from publication or 120 years from creation, whichever is

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shorter, for most other works, including anonymously and pseudonymously authored works and works for hire.

This term is much longer than that set in the first U.S. Copyright Act. Like the Statute of Anne before it, the first Copyright Act set the term of copyright at fourteen years, potentially renewable once for an additional fourteen years. The 1909 Copyright Act doubled this term, giving most works a copyright term of twenty-eight years, renewable once for an additional twenty-eight years. The 1976 Act replaced the renewable term with a single term for works created after 1 January 1978, measured by the life of the author plus an additional fifty years for most individually authored or coauthored works, and a term of seventy-five years for most other works, including anonymously and pseudonymously authored works and works for hire. The Sonny Bono Copyright Term Extension Act extended these terms to life plus seventy years and ninety-five years, respectively. It also extended to sixty-seven years the renewal term for works published before 1 January 1978 and copyrighted under the 1909 Act, which had previously been made automatic and extended to forty-seven years (see generally Leaffer 1999, 223–226).

What all of this means is that the copyright term is quite easy to determine for works published after 1 March 1989, fairly easy to determine for works published after 1 January 1978, and potentially quite difficult to determine for works published in 1977 or earlier. For works fixed in a tangible medium of expression after 1 March 1989, even if not formally published, the term is either the life of the author plus seventy years or ninety-five years. For works published between 1 January 1978, and 28 February 1989, the term is the same, provided that proper notice of a claim of copyright was affixed to the work. If proper notice was not affixed, the work may have fallen into the public domain, although several exceptions apply to allow the copyright holder to remedy the failure to affix notice.

The Copyright Renewal Act of 1992 retroactively made copyright renewal automatic for works published between 1964 and 1977 and otherwise eligible for copyright renewal. The length of this renewal term was subsequently extended to sixty-seven years, so that all such works are still in copyright. For works created in 1950 and earlier, it must first be determined whether the copyright was renewed. If it was not, and if it was not otherwise extended in some way, the copyright expired on 31 December of the twenty-eighth year of the copyright. If the copyright was re-

newed, the current sixty-seven-year extension applies automatically, so that, for example, the copyright on a work published in 1940 and renewed in 1968 will expire on 31 December 2035. Works originally copyrighted between 1 January 1951 and 31 December 1963, would still have been in their first copyright term on 1 January 1978, and renewal after that date was not automatic. These works still had to be renewed to gain the benefit of the sixty-seven-year renewal term (see generally U.S. Copyright Office 2004). In other words, for works published in 1963 and earlier, the copyright expired twenty-eight years after publication unless it was renewed. If copyright was renewed it expired or will expire ninety-five years after publication.

### **The Public Domain**

All works on which the copyright has expired, as well as all works that have never been copyrighted, are in the public domain. While some works fixed before 1 March 1989, were either deliberately or inadvertently placed in the public domain by failure to claim copyright, all newer works are copyrighted as soon as they are fixed, with one exception: Original U.S. government works are also in the public domain; they are never copyrighted (17 U.S.C. § 105). Works in the public domain may be freely copied, adapted, distributed, performed, and displayed without the consent of the creator of the work. State and local government works may be copyrighted, although many such works—statutes, ordinances, reported decisions, and the like—are non-copyrightable on the theory that the people must have free access to the laws governing them (see, for example, *Georgia v. The Harrison Co.*, 548 F. Supp. 110; Leaffer 1999, 93). This same logic applies even if the document was originally written by a private party and is later adopted as law by the government (*Building Officials*, 628 F.2d 730). The same logic should apply to international legal documents such as treaties or resolutions of the United Nations Security Council and, somewhat more tenuously, to official materials of foreign governments.

Much of the history of copyright law can be read as an attempt by content owners to fence off increasingly large portions of the public domain. In the twentieth century, the extensions of the copyright term in 1909, 1976, and 1998 took portions of the public domain and gave them to copyright holders. In the previous century, copyright holders had attempted, unsuccessfully, to use trademark law for the same purpose. In 1890, the publishers

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of the 1847 edition of *Webster's Dictionary*, on which the copyright had expired, brought suit against another publisher that had reproduced and distributed for sale the entire 1847 edition. The federal court hearing the case refused to allow trademark to be used in this way. To do so, it observed, would “continue that monopoly indefinitely,” in effect granting a perpetual copyright (*Merriam*, 43 F. 450).

Six years later, the U.S. Supreme Court reached the same result in a patent case, refusing to allow the makers of Singer sewing machines to use trademark law to prevent others from manufacturing those machines after the patent had expired (*Singer*, 163 U.S. at 185–186). The *Singer* case also introduced the term “public domain” (as “the domain of things public”) to U.S. law, giving it a definition somewhat different from that given to *domaine publique* in nineteenth-century French law and in the Berne Convention.

Because the Berne Convention Implementation Act of 1988 eliminated the requirements of registration and notice for copyright protection, all original works of authorship fixed in a tangible medium of expression are now copyrighted; U.S. copyright law contains no procedure by which copyright holders may choose to forgo copyright. Authors cannot place their works in the public domain; those who wish to do so must opt for the next best alternative, an open-source license. A wide variety of such licenses are available, including the well-known GNU General Public License (for software) and the various licenses available from Creative Commons for works of all types. The release of a work under a public license is sometimes referred to as “placing the work in the public domain,” but in fact the work remains copyrighted, under the open-source license, for the full statutory term. The term “copyleft” is sometimes used as an alternative.

### **Ownership, Transfer, and Licensing of Copyrights**

Individual authors own the copyright in the works they create. Joint authors not working for hire own the copyright jointly (17 U.S.C. § 201(a)). A collective work is not the same thing as a joint work. The authors of a joint work intend that their work will form part of a unitary whole (such as a course textbook, even if entire chapters are written by a single author), while the pieces of a collective work (such as articles in an encyclopedia) are themselves independent works (17 U.S.C. § 101). When works are made for hire, the employer owns the copyright (17 U.S.C. §§ 101, 201(b)).



Once acquired, ownership of a copyright may be freely transferred in whole or in part. The transfer may include some or all of the copyright holder's exclusive rights (*Effects Associates*, 908 F.2d 555). Transfers must ordinarily be in writing:

A transfer of copyright ownership, other than by operation of law, is not valid unless an instrument of conveyance, or a note or memorandum of the transfer, is in writing and signed by the owner of the rights conveyed or such owner's duly authorized agent. (17 U.S.C. § 204(a))

While a certificate of acknowledgment of the transfer is not required, it may serve as *prima facie* evidence that a transfer took place (17 U.S.C. § 204(b)). Transfers of copyright, like the copyrights themselves, can be (and, if there is any chance that the copyright might become valuable or that there might be conflicting claims to the copyright, should be) recorded with the Copyright Office (17 U.S.C. § 205).

In addition to a transfer of all or part of the copyright, the copyright holder may also license others to perform certain acts (such as making and distributing copies) that would otherwise be the exclusive right of the copyright holder. While exclusive licenses, like transfers, must be in writing, nonexclusive licenses may be granted orally. Nonexclusive licenses may even be granted by implication, in the absence of any explicit oral license, if the conduct or relationship between the parties shows an intent to grant the license (see Leaffer 1999, 219). Licenses, like transfers, can be recorded with the Copyright Office, and should be if there is any possibility that the copyright will become valuable or that conflict or uncertainty might arise.

Copyright may be transferred involuntarily when the author has placed the copyright as collateral for a debt or in bankruptcy. It may not, however, be taken by a foreign government to suppress opinions with which that government disagrees (Leaffer 1999, 222; 17 U.S.C. § 20(e)). Sound and video recordings, however, may be subject to a compulsory license in some situations. These compulsory licenses allow the licensee to use the work without the copyright holder's consent, so long as the licensee pays an appropriate royalty fee (see Leaffer 1999, 285). Most holders of performance rights in music recordings license those rights to a performing rights society such as ASCAP or BMI (in the

United States), or similar organizations outside the United States, such as Buma/Stemra in the Netherlands. These organizations then grant a blanket license to radio stations and similar entities wishing to play the recordings and divide the fees received among the performance right holders in proportion to the frequency with and the size of the markets in which they are played. While disputes inevitably arise concerning the allocation of licensing fees, the system persists because it is more workable than the alternative—separately licensing millions of music recordings to thousands of media outlets.

A similar logic underlies the open-source movement, although the motive is not pecuniary. To work around the impossibility of placing privately created works in the public domain, open-source programmers and authors use a voluntary collective license—a license under which the copyright owner relinquishes the right to choose the licensee. The copyright owner does not necessarily relinquish the right to be paid; much shareware, for instance, is distributed under licenses that do not restrict copying but do require the copier to pay the copyright holder. Voluntary collective licenses used for open-source works require no payment (or, sometimes, payment only for commercial uses), but may impose other conditions.

### **Trademark Overview**

A trademark is not, surprisingly, a mark used in trade. In the narrow sense, a trademark is a mark used in commerce “to identify and distinguish . . . goods . . . from those manufactured or sold by others and to indicate the source of the goods” (15 U.S.C. § 1127). Service marks are used “to identify and distinguish the services of one person . . . from the services of others and to indicate the source of the services”; collective marks “indicat[e] membership in a union, an association, or other organization”; and certification marks “certify regional or other origin, material, mode of manufacture, quality, accuracy, or other characteristics of . . . goods or services or that the work or labor on the goods or services was performed by members of a union or other organization” (15 U.S.C. § 1127). These four types of marks—trademarks, service marks, collective marks, and certification marks—are often, but inaccurately, collectively referred to as “trademarks.” The body of law governing these types of marks and related concepts may, however, be properly referred to as “trademark law.”

The rationale for trademark is to protect the public as well as the mark holder. Marks benefit consumers by providing an indication of quality. Infringement upon or dilution of the mark may harm the mark holder, unjustly enrich the infringer, and confuse the public.

### **What Can Be Trademarked?**

A letter, word, logo, slogan, motto, design, phrase, picture, shape, symbol, or some combination thereof can become a protected mark. A color, such as the pink color of a brand of fiberglass insulation, may become a trademark if it is sufficiently distinctive (see *Qualitex Co.*, 514 U.S. 159). Even a smell may become a trademark, provided that it is distinctive and not merely functional; thus, a particular scent for a brand of scented embroidery yarn may be registered as a trademark (*In re Clarke*, 17 U.S.P.Q.2d 1238).

Certain things may not be registered as marks under federal law, however. A mark that is immoral, deceptive, disparaging, or scandalous may not be registered (15 U.S.C. § 1052(a)), although this restriction is quite narrowly construed. While a logo showing, in silhouette, a dog defecating, is scandalous, an “Old Glory” condom, made to look like a U.S. flag, is not (*In re Old Glory Condom Corp.*, 26 U.S.P.Q.2d 1216). The flag itself, though, as well as other insignia and flags of the federal, state, and foreign governments, cannot be registered as a mark (15 U.S.C. § 1052(b)). The Washington Redskins’ mark has been the subject of years of litigation by Native American activists seeking to cancel the mark’s federal registration on the grounds that it disparages a particular ethnic group.

Marks that are confusingly similar to an existing mark cannot be registered. Nor can generic marks—for example, marks that are merely the names of the goods or services they are used to identify, such as “You have mail” as an e-mail service’s announcement that a message has arrived—be registered (15 U.S.C. § 1052(e)(1); *America Online*, 64 F. Supp.2d 549). Marks that are deceptive cannot be registered, although marks that are deceptively misdescriptive may be registered if they have acquired a secondary meaning. A mark is deceptive if it leads the consumer to believe the product is something other than it actually is and influences the buying decision (see generally 15 U.S.C. § 1052(a)). It is deceptively misdescriptive if consumers might be misled as to the nature of the product, but their buying decisions would not be influenced. Thus, the name “Lovee Lamb” for car seat covers

made of synthetic sheepskin is deceptive, because consumers might prefer seat covers made of lambskin or sheepskin to synthetic covers. And while the name “Glass Wax” for a glass and metal cleaner that contains no wax may lead consumers to believe the product contains wax, it is unlikely to affect their buying choices. Consumers are probably indifferent to whether the product contains wax (*In re Budge Manufacturing*, 857 F.2d 773; *Gold Seal Co.*, 129 F. Supp. 928).

Descriptive terms, geographic terms, and personal names can become trademarks if and only if they acquire a secondary meaning. This secondary meaning is acquired when the mark becomes established in the minds of the public, or at least in the minds of the audience at which the mark is aimed, as referring to the particular thing described and not to the broader class of things to which it belongs (*Abercrombie & Fitch*, 537 F.2d at 9). Terms that are suggestive, arbitrary, or fanciful are always eligible for registration as marks, provided they are not scandalous, deceptive, or otherwise ineligible. Suggestive terms suggest something about the goods or services to which they apply, without directly describing them: “Windex” used to describe a window cleaning fluid is suggestive. Arbitrary marks are words and images whose everyday use neither suggests nor describes the goods or services to which they are applied: “Element” used to describe an automobile is arbitrary. Fanciful marks are coined or created for no reason other than to serve as a mark: “Aptiva” used to describe a computer is fanciful.

The term “element” would not be arbitrary in all cases, however; the difficulty of placing terms within these categories is “compounded because a term that is in one category for a particular product may be in quite a different one for another” (*Abercrombie & Fitch*, 537 F.2d at 9). For example, the term “‘ivory’ would be generic when used to describe a product made from the tusks of elephants but arbitrary as applied to soap” (*Abercrombie & Fitch*, 537 F.2d at 9 fn. 6). In addition, “a term may shift from one category to another in light of differences in usage through time” (*Abercrombie & Fitch*, 537 F.2d at 9). This is what happened to “the coined word ‘Escalator’, originally fanciful, or at the very least suggestive,” which by 1950 had become generic (*Abercrombie & Fitch*, 537 F.2d at 9 fn. 7). In addition, “a term may have one meaning to one group of users and a different one to others,” and “the same term may be put

to different uses with respect to a single product” (*Abercrombie & Fitch*, 537 F.2d at 9).

*Abercrombie & Fitch* involved several uses of the word “safari” to describe clothing, hats, and footwear. The court held that “A&F could not apply ‘Safari’ as a trademark for an expedition into the African wilderness. This would be a clear example of the use of ‘Safari’ as a generic term. What is perhaps less obvious is that a word may have more than one generic use” (*Abercrombie & Fitch*, 537 F.2d at 11). The use of “safari” to describe “a broad flat-brimmed hat with a single, large band” was generic; that type of hat had become known as a safari hat, and Abercrombie & Fitch could not claim a trademark in the name. Similarly, “a belted bush jacket with patch pockets and a buttoned shoulder loop” was generically known as a safari jacket, and “when the jacket is accompanied by pants, the combination is called the ‘Safari suit’” (*Abercrombie & Fitch*, 537 F.2d at 11–12). A smaller version of the safari hat was a “minisafari,” a term in which Abercrombie & Fitch could also claim no trademark. However, “there is no evidence that ‘Safari’ has become a generic term for boots.” The defendant’s use may have been protected by the fair use defense, because the defendant’s boots were called “Camel Safari,” “Hippo Safari,” and “Chukka Safari,” and the defendant actually operated safari tours to Africa.

### **Trademark Formalities**

Unlike patents and copyrights, marks are protected by a significant body of state law as well as by federal law. Thus, marks can be protected at the state level even in the absence of a federal trademark registration. The basic requirement for state common law trademark protection is that the mark be used in commerce; the first person to do so gains rights in the mark. Protection does not stem from the act of creating the mark, as it would in copyright, but from prior, open, bona fide use of and control over the mark. Registration of a mark may also ensure protection even before the mark is actually used: “A person who has a bona fide intention, under circumstances showing the good faith of such person, to use a trademark in commerce may request registration of its trademark . . .” (15 U.S.C. § 1051(b)). Although the registration will not actually issue until the use has occurred, the registrant will be able to use the filing date to establish priority over other claimants.

While unregistered marks may be suitable for very small or very new businesses, marks that have or are likely to have significant value should be registered. Federal registration is available for marks used in interstate commerce. The U.S. Patent and Trademark Office's website provides a useful tool for new registrants. The Trademark Electronic Search System (TESS) allows users to search a database of more than three million registered trademarks in order to avoid submitting applications that will be rejected because they are for marks identical or similar to marks already registered to someone else for the same or similar goods or services.

Once a mark has been selected, the applicant must draft a description of the goods or services to be covered by the mark. The applicant then submits this description to the U.S. Patent and Trademark Office, along with a clear depiction of the mark itself and an application fee (\$325 for most applications if filed online or \$375 for most applications if filed in hard copy) (U.S. Patent and Trademark Office website). Shortly after filing, the applicant will receive a notice that the application has been received, but a decision on the application may take six months to a year if no difficulties arise, or much longer in unusual, difficult, or contested cases. Registration in the United States does not, by itself, provide protection outside the United States. The global trademark protection regime (discussed in Chapter 3) is much less developed than that of copyright or even patent.

*Notice of trademark:* It is not necessary to give notice of a claim of trademark for common-law trademark protection, but it is advisable. Use of the superscripts "TM" (for trademark) and "SM" (for service mark) indicate a claim in an unregistered trademark. The trademark registration symbol "®" indicates a federally registered trademark, as do the words "Registered U.S. Patent and Trademark Office" or "Reg. U.S. Pat. & TM Off." The term "Marca Registrada" or the superscript "MR" is required in some countries.

### **Trademark Infringement**

Property rights in protected marks can be harmed in two ways: infringement and dilution. All marks are subject to infringement, which occurs when an unauthorized person uses the mark in a way that creates a likelihood of confusion. Not all marks are subject to dilution, however, which occurs when an unauthorized person tarnishes the mark or blurs its distinctiveness; only famous trademarks can be diluted (15 U.S.C. § 1125(c)(1)).

*Infringement:* Infringement occurs when an unauthorized person uses a mark belonging to another, or a similar mark, in a way that creates a likelihood of confusion in the minds of the public. The various federal circuits have adopted similar, but not identical, tests for determining whether a use creates a likelihood of confusion. The Ninth Circuit Court of Appeals' eight-factor test examines (1) the strength of the mark, (2) the proximity of the goods, (3) the similarity of the marks, (4) the evidence of actual confusion, (5) the marketing channels used, (6) the type of goods and the degree of care likely to be exercised by the purchaser, (7) the defendant's intent in selecting the mark, and (8) the likelihood of expansion of the product lines (*Playboy Enterprises*, 279 F.3d 796). These are factors, not elements. A court may find a likelihood of confusion if the balance of factors shows a likelihood of confusion, even if one or perhaps more factors seem to weigh against such a finding.

*Dilution:* The threshold question in any dilution action is whether the mark in question is "famous" within the meaning of the Trademark Dilution Act, which states:

For purposes of paragraph (1), a mark is famous if it is widely recognized by the general consuming public of the United States as a designation of source of the goods or services of the mark's owner. In determining whether a mark possesses the requisite degree of recognition, the court may consider all relevant factors, including the following:

- (i) The duration, extent, and geographic reach of advertising and publicity of the mark, whether advertised or publicized by the owner or third parties.
- (ii) The amount, volume, and geographic extent of sales of goods or services offered under the mark.
- (iii) The extent of actual recognition of the mark.
- (iv) Whether the mark was registered under the Act of March 3, 1881, or the Act of February 20, 1905, or on the principal register. (15 U.S.C. § 1125(c)(2)(A), as amended by 120 Stat. 1730)

It is not necessary for all of the listed factors to be present in order for a mark to be famous. Even if some factors weigh against a finding that the mark is famous, those factors may be outweighed by others (McCarthy 2004, 175–176).

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If the mark is famous, it has been diluted if an unauthorized person has blurred or tarnished it. The diluting use must be a commercial use, and it must have arisen after the mark became famous. In addition to noncommercial uses, commercial uses for purposes of parody, criticism, comment, news reporting, or comparative advertising are protected from liability for dilution (120 Stat. 1730).

Blurring occurs when a mark similar to the famous mark is used on some other product, resulting in a diminution in the distinctiveness of the famous mark. Congress has defined blurring as “association arising from the similarity between a mark or trade name and a famous mark that impairs the distinctiveness of the famous mark” (15 U.S.C. § 1125(c)(2)(B), as amended by 120 Stat. 1730). To determine the likelihood of blurring, “the court may consider all relevant factors, including” the degree of similarity between the marks, the distinctiveness and degree of recognition of the famous mark, the extent to which the use of that mark is exclusive, whether the user intends to create an association with the secondary mark, and any actual association between them.

Claims for blurring give somewhat broader protection to the owners of famous marks than “likelihood of confusion” infringement claims give to the holders of all marks. However, when the consumers at whom the marks are aimed are sophisticated and there is no bad intent on the part of the second user, courts are unlikely to find blurring. For example, the name “Lexus” for luxury automobiles, although similar to the name “Lexis” already in use for an online legal research service, does not blur the Lexis trademark. The products are different, the Lexis name is famous only among attorneys and virtually unknown elsewhere, and attorneys are sophisticated consumers who are not likely to be misled as to the source of either the cars or the research service (*Mead Data Central*, 875 F.2d at 1031–1032).

Tarnishment occurs when a famous mark is used in a way that casts disrepute upon it or otherwise interferes with positive mental associations attached to the mark. Congress has defined “dilution by tarnishment” as “association arising from the similarity between a mark or trade name and a famous mark that harms the reputation of the famous mark” (15 U.S.C. § 1125(c)(2)(C), as amended by 120 Stat. 1730). For example, a reproduction of the red and white Coca-Cola logo, substituting the words “Enjoy Cocaine” for “Enjoy Coca-Cola,” tarnishes Coca-Cola’s mark by associating dangerous and illegal drug use with



the product (*Coca-Cola*, 346 F. Supp. 1183; although this case predates the Federal Trademark Dilution Act, the court discussed a state trademark dilution statute).

*Third-party liability:* As with copyright and patent, third parties may be liable for trademark infringement by others. A party who “intentionally induces another to infringe a trademark, or . . . continues to supply its product to one whom it knows or has reason to know is engaging in trademark infringement . . . is contributorily responsible for any harm done as a result of the deceit” (*Inwood Labs*, 456 U.S. at 854). This has potentially serious repercussions for ISPs.

*Fair use:* As with copyright, a defendant in a trademark action may claim that his or her infringing or diluting use is protected as a fair use. Trademark fair use may be either traditional or nominative. Traditional or classic fair use occurs when a trademark is also a descriptive term and is used by a person other than the trademark holder in its descriptive sense. For example, the use of “sweet-tart” to describe Ocean Spray cranberry juice does not infringe on the trademark “SweeTarts” for candy. Ocean Spray is using “sweet-tart” as a description of the taste of its cranberry juice, not as a trademark, and the description is accurate (*Sunmark*, 64 F.3d 1055).

Nominative fair use occurs when one person uses another’s trademark not, or not exclusively, to identify his or her own product or service, but to identify the trademark holder’s product or service. Thus, a mechanic repairing Toyota automobiles may use the name “Toyota” in advertisements, because there is no other simple way for the mechanic to identify his or her services. Similarly, a temporary agency offering to place workers skilled in the use of Microsoft Office may use the name “Microsoft Office” in its advertisements, rather than some unwieldy circumlocution such as “the principal business-oriented suite of software distributed by a large software company headquartered in Redmond, Washington.” Nominative fair use has played a significant role in legal disputes over search-engine spamming and related techniques and is discussed in Chapter 2.

### **Transfer, Duration, and Termination of Trademark**

Marks are alienable interests in property. They may be licensed or assigned, provided the requirement of actual use of the mark continues to be met. While patents and copyrights are constitutionally required to be of limited duration, trademarks are not.

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Trademarks may last forever, but trademark registrations must be renewed periodically. Registrations issued after 16 November 1989 must be renewed every ten years (15 U.S.C. §§ 1058–1059). Lapse of registration by itself does not terminate a trademark, but a trademark that remains unused for three years may be abandoned, in which case it can be claimed by another person. (See *Silverman*, 870 F.2d 40, which discusses whether trademarks in “Amos ‘n’ Andy” radio characters had been abandoned after twenty-one years of nonuse.) Trademarks may also fall into the public domain by becoming generic; everyday words such as “escalator” and “aspirin” were once trademarks. The owners of trademarks such as Coca-Cola, Xerox, Magic Marker, and Frigidaire have waged successful campaigns to keep their trademarks from becoming generic.

### Patent Overview

A patent is an intellectual property right that allows the holder to exclude others from making, selling, using, or offering to sell an invention, as well as from importing the invention or a device incorporating it into the United States, even if it was legally manufactured elsewhere (McCarthy 2004, 433–435). Unlike copyrights and trademarks, patents do not arise automatically from the creative process; they must be affirmatively applied for. The U.S. Patent and Trademark Office grants utility patents, design patents, and plant patents.

#### Patentable Subject Matter: What Can Be Patented?

Utility patents may be granted under U.S. law for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof” (35 U.S.C. § 101). Inventions can be patented if they are useful, novel, and nonobvious (35 U.S.C. §§ 101 [useful], 102 [novel], 103 [nonobvious]). Novelty and nonobviousness are assessed in relation to the prior art—the existing body of inventions and technical knowledge in the area. Patents cannot be obtained for natural phenomena, abstract ideas, or laws of nature. They may, however, be obtained for a wide variety of things not traditionally thought of as inventions, such as plants or business methods.

Design patents may be granted under U.S. law for “any new, original, and ornamental design for an article of manufacture”

(35 U.S.C. § 171), while plant patents may be granted for the invention or discovery and asexual reproduction (such as reproduction by grafting) of “any distinct and new variety of plant, including cultivated sports, mutants, hybrids, and newly found seedlings, other than a tuber propagated plant or a plant found in an uncultivated state” (35 U.S.C. § 161), as well as for sexually reproduced plants and plants propagated from tubers (7 U.S.C. § 2402).

### **Patent Formalities**

While the formalities for a grant of copyright were never onerous and are now *de minimis*, and the formalities for a grant of trademark are fairly straightforward, the formalities of the patent application process are complex. The application form initially filed must include the title of the invention (37 C.F.R. 1.72(a)), a specification, a drawing, and the applicant’s oath (35 U.S.C. § 111). The specification contains the claims and is the heart of the patent application.

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention. (35 U.S.C. § 112)

With regard to the drawing, the code provides that:

The applicant shall furnish a drawing where necessary for the understanding of the subject matter sought to be patented. When the nature of such subject matter admits of illustration by a drawing and the applicant has not furnished such a drawing, the Director may require its submission within a time period of not less than two months from the sending of a notice thereof. (35 U.S.C. § 113)

In the oath, the applicant must state “that he [or she] believes himself [or herself] to be the original and first inventor of the process, machine, manufacture, or composition of matter, or improvement thereof, for which he [or she] solicits a patent; and shall state of what country he [or she] is a citizen” (35 U.S.C. § 115).

The application must also be accompanied by the appropriate fee. Figuring out the fee is itself a complex task, requiring the applicant (or his or her patent agent or attorney) to consult a ten-page fee schedule published by the U.S. Patent and Trademark Office. For utility patent applications filed on or after 8 December 2004, the basic filing fee is \$300, with “small entities” (small businesses, nonprofit organizations, and individual inventors) receiving a 50 percent discount. Small entities filing electronic rather than hard-copy applications receive an additional discount, paying only \$75. If the application contains more than twenty claims or more than three independent claims, additional per-claim fees apply. Applications longer than 100 sheets also pay a surcharge. The basic filing fee for design, plant, and provisional patents filed on or after 8 December 2004 is \$200; again, small entities receive a 50 percent discount, and surcharges may apply (U.S. Patent and Trademark Office website, FY 2006 Fee Schedule).

With copyrights, the applicant’s role in the registration process usually ends when the initial application is completed. With registration of marks, too, there is little left for the applicant to do, unless the registration is contested or unusual in some way. The patent application process, however, typically takes two to three years, during which there may be considerable communication and give and take between the applicant and the U.S. Patent and Trademark Office. If, at any time, the applicant fails to respond to any action by the U.S. Patent and Trademark Office within six months of the action, the office will consider the application abandoned, unless the applicant can show that the delay was unavoidable.

During this process a number of dates may be important. The first, chronologically, is the invention date, also called the conception date. This is the date upon which the inventor first thinks of the invention. In most of the world the invention date has no legal significance; the United States, however, is a “first-to-invent” jurisdiction. In the United States, when there is a dispute between two inventors who invented the same thing at

more or less the same time, the inventor who first thought of the invention wins, provided that the inventor can prove the date on which he or she first thought of the invention and show that he or she subsequently exercised diligence in reducing the invention to practice. In the rest of the world, the conflict is resolved more simply, if perhaps less fairly: The first inventor to file a sufficiently complete application wins. In effect, under U.S. law the invention date may replace the priority date in some cases.

The next legally significant date in the application process is the filing date—the date upon which the application papers are received by the U.S. Patent and Trademark Office. This is followed by the priority date—the date upon which the technical disclosure that fully describes the invention covered by that claim was first filed with some patent office. The patent office with which the disclosure was first filed need not be the U.S. Patent and Trademark Office; it could be a patent office outside the United States. If the elements of a claim have been published elsewhere before the priority date, the claim is invalid in most of the world. In the United States, as already noted, an inventor may substitute the invention date for the priority date in such a case, provided that the invention date is less than one year earlier than the priority date and, as noted, that the inventor can provide sufficient proof (through notes, workbooks, or the like) of the invention date.

After the priority date—usually about eighteen months after, although the time span may vary—comes the publication date. This is the date on which a patent application is published and the correspondence between the U.S. Patent and Trademark Office and the applicant is made public. This is a somewhat tense time for the patent applicant, because at that point all of the information necessary to duplicate the applicant's invention or discovery will be available to the whole world, including the applicant's business competitors—but the applicant will not yet have a patent. The applicant will be anxiously waiting for the issue date—the date on which the patent application is granted and matures into a patent. The issue date is the earliest date on which the patent holder may sue for infringement.

The relationship between the U.S. Patent and Trademark Office and the applicant does not end there, however. Patents may be adjusted; errors may be corrected, resulting in a reissue of the patent. Additional fees must be paid at various stages in the application process and must continue to be paid during the life of

the patent. These fees include, among others, search fees, examination fees, and maintenance fees. The maintenance fees, in particular, can be quite hefty, with fees of \$900, \$2,300, and \$3,800 due at 3.5, 7.5, and 11.5 years, respectively (U.S. Patent and Trademark Office website, FY 2006 Fee Schedule; maintenance fees apply only to utility patents).

To be protected against patent infringement in other countries, the inventor must apply for and be granted a patent in each. This application process is greatly simplified by the Patent Cooperation Treaty (discussed in Chapter 3).

### **Exclusive Rights of the Patent Holder and Patent Infringement**

Once the patent is granted, the patent holder has the right to exclude others from using the patented invention or discovery. This does not necessarily mean that the patent holder has a right to make or use the invention or discovery; doing so may in turn require the use of inventions or discoveries patented by others.

Under the doctrine of equivalents, patent infringement can occur even when the infringing conduct or device does not exactly duplicate the description in the patent claims. Conduct or devices not literally within the scope of the patent are still covered by the patent if they differ only insubstantially. The breadth or narrowness with which the doctrine of equivalents will be applied depends on the degree of innovation inherent in the patent. Pioneer patents will be interpreted as covering a broad range of equivalents, while minor patents in an already crowded field will cover a narrower range. The doctrine of equivalents is also subject to three limitations. First, it can never be extended to cover prior art; anything already known or obvious to a person having ordinary skill in the prior art cannot be covered by the patent. Second, the doctrine is limited by the colorfully named “nose of wax rule”: the claims may not be treated “like a nose of wax, which may be turned and twisted in any direction . . . so as to make it include something more than, or something different from, what its words express” (*White*, 119 U.S. at 51). Finally, the doctrine of equivalents is limited by prosecution history estoppel, also called file wrapper estoppel.

The file wrapper that gives the doctrine one of its names is the folder in which the U.S. Patent and Trademark Office keeps the papers filed during the process of a patent application. The patent application process is called the prosecution of the patent, and the papers in the file wrapper form the prosecution history

that gives the doctrine its other name. During the course of prosecuting a patent, an applicant may concede in writing that certain things are not covered by the claims in the patent. The documents containing these concessions will be placed within the file wrapper and will form part of the prosecution history. By either name, the doctrine prevents a patent holder from asserting the doctrine of equivalents against an alleged infringer if the conduct complained of falls within these concessions. Patent holders may not use the doctrine of equivalents to reclaim processes or products that have been given up during the prosecution of the patent, even though they might otherwise be covered by the doctrine. They are “estopped” (legalese for prevented or prohibited) from maintaining a suit for patent infringement based on those conceded areas.

A patent holder who is able to prove infringement may obtain injunctive relief and damages against the infringer, which may include seizing and blocking importation of infringing goods (35 U.S.C. §§ 281–284). An accused infringer may, as an affirmative defense, attack the validity of the patent. Although the patent is presumed valid, an alleged infringer who establishes that the patent is invalid is, of course, not an infringer (35 U.S.C. § 282). Other persons may also challenge the validity of a patent.

As with copyright and trademark, third parties may be liable for patent infringement under certain circumstances. Third-party liability may be imposed for contributory patent infringement or for induced infringement. Contributory infringement occurs when a third party

offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer. (35 U.S.C. § 271(c))

Thus, a claim of contributory patent infringement has four elements: (1) someone must have sold, offered, or imported some component of a patented device or something for use in a

patented process; (2) the component must be material—that is, not inessential; (3) the person must know that the component is made or adapted for use in that patented device or process; and (4) the component must not be a staple article of commerce (i.e., it must not be capable of a substantial noninfringing use).

The statutory definition of induced infringement provides only that “Whoever actively induces infringement of a patent shall be liable as an infringer” (35 U.S.C. § 271(b)). Courts have interpreted this as requiring that the inducer has knowledge of the underlying direct infringement and provides active and knowing assistance to the direct infringer (see *Manville Sales*, 917 F.2d at 553). In contrast to direct or contributory infringement, induced infringement can occur even when the defendant’s conduct takes place outside the United States.

### **Duration of Patent**

A valuable patent, such as a new pharmaceutical patent, may cost ten times as much to bring to market as a valuable Hollywood movie. The Hollywood movie studio will have little effort and expense obtaining a copyright, and once it has done so any who violate the copyright may be subject not only to civil penalties, but also to criminal penalties, possibly including prison time. Most dramatic is the difference in the length of the monopoly granted: The movie studio’s copyright will last for ninety-five years, but the pharmaceutical firm’s patent will last for less than twenty years. The duration of utility patents is twenty years from the filing date—typically two to three years before the date on which the patent is granted (35 U.S.C. § 154(a)(2)). If obtaining the patent takes more than three years, the term may be extended by the amount over three years (35 U.S.C. § 154(b)(1)(B); see also 35 U.S.C. § 154(b)(1)(C)). The twenty-year term is set by TRIPs and was adopted by the United States in fulfillment of its TRIPs obligations; patents granted before 8 June 1995 may be governed by the earlier term of seventeen years from the date of issue (rather than a term measured from the filing date), if doing so would be beneficial to the patent holder. Such patents are valid for a term of seventeen years from the issue date or twenty years from the earliest regular patent filing date, whichever is longer (35 U.S.C. § 154(c)(1)). Plant patents are also valid for twenty years from the filing date, but design patents have an even shorter duration. Design patents are valid for fourteen years from the issue date (not filing date) (35 U.S.C. § 173). Patents that have expired, as well as



those that have been abandoned, are in the public domain. They may be used freely but may not be recaptured by repatenting (35 U.S.C. § 102).

While the duration of copyright has increased dramatically since the founding of the United States, the duration of patents has not. The copyright term has increased from a maximum of twenty-eight years to life plus seventy years, so that a work by a twenty-year-old who lives to be ninety would remain in copyright for 140 years, or five times the original maximum term. The first Patent Act, in contrast, set a term of fourteen years, measured from the issue date. The current term of twenty years from the filing date—in effect, seventeen years and perhaps a few months from the issue date—represents no significant increase, and may in part explain why so much creative energy in the United States has been channeled away from the sciences and toward the creation of copyrightable works.

### **Ownership, Transfer, and Licensing of Patents**

The ownership of a patent arises from the act of creation, as with copyright. The inventor is the initial owner of the patent interest, but this interest may be assigned. A great many inventions are created by employees of companies in the course of their employment, and these inventions are typically assigned to the company. This may be done before the application is filed, but no assignment is valid unless it is recorded with the U.S. Patent and Trademark Office (35 U.S.C. § 261). An inventor or the inventor's assignee may also issue a license allowing another person or persons to make, use, or sell the invention.

## **Summary**

This chapter provides an overview of the development of intellectual property law in the United States and elsewhere, from the invention of printing through the advent of the Internet. It looks at the legal treatment of the three main forms of intellectual property—copyright, trademark, and patent—in U.S. law and introduces the tensions and international issues that will be addressed in Chapters 2 and 3.

The history of intellectual property law is closely connected to the history of technology. As information technology has advanced, copyright law has been forced to adapt in response.

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Trademark law has grown as trade has grown, and patents have followed technical innovation. They came into being in the Italian Renaissance, and after the Industrial Revolution became the subject of a government agency within the United States—the U.S. Patent and Trademark Office.

We are now in the midst of a new wave of changes in intellectual property law, made necessary by the Internet information revolution. Computers and the Internet offer new scope for inventions and discoveries, requiring changes to patent law. Internet domain names provide a new category of things to be trademarked, while search engines provide new incentives for trademark infringement. And the area under greatest stress is copyright: The Internet provides enormously enhanced opportunities for content creation and for copyright infringement, resulting in the passage of laws that would have seemed shockingly harsh just a quarter of a century ago.

### Treaties

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“Buenos Aires Convention.” August 20, 1910. 38 Stat. 1785, 155 L.N.T.S. 179.

“Convention Concerning the Creation of an International Union for the Protection of Literary and Artistic Works (Berne Convention).” September 9, 1886, as last revised at Paris, July 24, 1971 (amended 1979). 25 U.S.T. 1341, 828 U.N.T.S. 221.

“Convention Establishing the World Intellectual Property Organization.” July 14, 1967, as amended on September 28, 1979 (WIPO Convention). 21 U.S.T. 1749, 828 U.N.T.S. 3.

“Convention on the Grant of European Patents.” October 5, 1973. 13 I.L.M. 276. Text as amended through December 10, 1998, available at <http://www.european-patent-office.org/legal/epc/e/ma1.html>.

“Inter-American Convention for the Protection of Industrial Property.” August 20, 1910. 39 Stat. 1675; TS 626; 1 Bevans 772. Replaced by General Inter-American Convention for Trademark and Commercial Protection. February 20, 1929. 46 Stat. 2907, TS 833, 2 Bevans 751, 124 L.N.T.S. 357.

“Madrid Agreement Concerning the International Registration of Marks.” April 14, 1891. As revised at Brussels on December 14, 1900, at

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Code of Federal Regulations, Title 37.

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Copyright Act of 1976 (as amended), §§ 101–1331.

Digital Millennium Copyright Act, 17 U.S.C. §§ 512, 1201–1205.

Lanham Trademark Act, 15 U.S.C. §§ 1052, 1058, 1059, 1125–1127.

No Electronic Theft Act, amending and codified at 17 U.S.C. §§ 101, 506 & 507 and 18 U.S.C. §§ 2319–2320.

Patent Act, 35 U.S.C. §§ 100 et seq.

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Plant Variety Protection Act of 1970 (part), 7 U.S.C. §§ 2401–2404.  
Semiconductor Chip Protection Act, 17 U.S.C. §§ 901–914.  
Statute of Monopolies (1623), 21 James I ch. 3.  
Trademark Act of July 8, 1870, ch. 530, §§ 77–84, 26 Stat. 198.  
Trademark Dilution Revision Act of 2006, PL 109-312, Oct. 6, 2006, 120 Stat. 1730.  
Vessel Hull Design Protection Act, codified at 17 U.S.C. §§ 1301–1332.  
Visual Artists Rights Act of 1990, 17 U.S.C. § 106A.

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*Building Officials & Code Administration v. Code Technology, Inc.*, 628 F.2d 730 (1st Cir. 1980).  
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*Georgia v. The Harrison Co.*, 548 F. Supp. 110, *vacated by agreement between the parties*, 559 F. Supp. 37 (N.D. Ga. 1983).  
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- Hoehling v. Universal City Studios, Inc.*, 618 F.2d 972 (2d Cir. 1980).
- In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994).
- In re Budge Manufacturing Co.*, 857 F.2d 773 (Fed. Cir. 1988).
- In re Clarke*, 17 U.S.P.Q.2d 1238 (T.T.A.B. 1990).
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