

Types of Intellectual Property

"The Congress shall have 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."

—United States Constitution, Article 1, Section 8, Clause 8

Intellectual property (IP) protects creations of the mind and patents are just one type of IP. To understand how patents protect your ideas and inventions, it is important to also understand what patents *cannot* protect and where other IP rights might be applied instead. In some cases, several forms of IP can protect the same product or invention in different ways, but in other cases current IP laws do not provide much protection. This chapter compares and contrasts patents, trademarks, copyrights, and trade secrets—the four types of IP.

Although this chapter provides a solid framework for determining how the four types of IP may apply to your inventions, use the information as a starting point for getting expert advice on developing a holistic IP strategy for your business. In the end, because each company has its own unique business plan, technology, and budget, you need a plan that is tailored to your needs. Fortunately, once established, many portions of your IP protection strategy can be implemented without the assistance of an attorney if you do not yet have a robust IP budget. In fact, as discussed later in this chapter, there are several simple and absolutely free techniques that can significantly raise your IP profile.

OVERVIEW OF THE FOUR TYPES OF INTELLECTUAL PROPERTY

When considering intellectual property, it helps to first divide the world of inventions into artistic and utilitarian things. Artistic inventions include books, articles, movies, musical compositions, and photographs. Utilitarian inventions include mechanical devices, computer hardware, biotechnology, and manufacturing methods. By definition, patents protect utilitarian inventions and copyrights protect artistic inventions. Trademarks and trade secrets can protect both useful and artistic inventions.

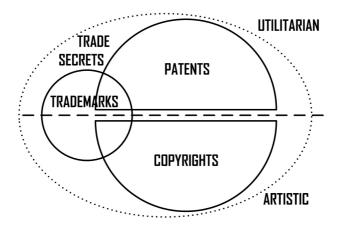


FIGURE 1.1 The Logical Domains of IP

As shown in Figure 1.1, patents and copyrights are diametrically opposite forms of protection that apply to useful and artistic works respectively—there is no overlap. Trade secrets and trademarks might

protect some of the same inventions that patents and copyrights do, but not the same types of inventions. Trademark law applies to "marks" used publicly in commerce to indicate the origin of goods or services. In contrast, trade secret law provides protection to inventions or assets that are held in secret and not available to the public. The overlap between trade secrets and the other types of IP has an important conflict because at some point obtaining other IP protection makes these inventions public and therefore negates any protection as a secret. As discussed in more detail below, trade secret law can initially protect innovations that are later protected by patents, trademarks, or copyrights, but at some point inventors must choose between trade secret protection and the other protection options.

Although the four types of IP protect different inventions, this is not to say that a given product will be limited to one type of IP protection. In fact, most products actually include tens if not hundreds of unique inventions that are each eligible for one or more forms of IP protection. One of the most important takeaways from this book should be that you view innovations that you once considered as a single invention to actually be an amalgamation of many protectable inventions.

For example, let's say you invent a smartphone app that identifies faces and then speaks the names of the people who are identified. The code that makes up the app is considered a literary work and is protectable by copyright. On the other hand, as discussed in more detail in the coming chapters, the functionality of the app may be protectable by patents in several different ways—each being defined as a unique invention. Instead of being a single invention, this relatively simple app could actually be the subject of at least one copyright and several patents.

Accordingly, as discussed in more detail in the coming chapters, creating a comprehensive IP strategy for your business and products starts with "mining" for protectable inventions and determining which ones are most valuable given your business plan, competitors, and potential customers. Relative cost and value of securing protection can then be used to determine where to focus your IP budget. However, before embarking on your mining expedition, you will need to know what you are looking for.

TRADEMARKS

Federal law defines a trademark as a "word, name, symbol, device or any combination thereof, which is used to distinguish goods of one person from goods manufactured or sold by others, and to indicate the source of the goods, even if the source is unknown." Simply put, trademark law protects identifying "marks" used in association with goods and services. The most common trademarks are brand or product names, logos, slogans, and combinations of such marks. For example, several Nike trademarks are shown together in Figure 1.2. The word 'NIKE' alone is a trademark and the word 'NIKE' in distinctive font is another trademark. The classic Nike swoosh graphic and the slogan "JUST DO IT" are also individual trademarks. Additionally, any combination of these individual marks would also be considered a unique trademark on its own as in the combined graphic shown.



FIGURE 1.2

Trademarks are not limited to words and designs. Sounds, colors, smells, textures, shapes, motions, and the appearance of products, packaging, or places of business can also be protectable by trademark law. For example, Owens Corning has a trademark on the color pink in relation to fiberglass insulation. Metro-Goldwyn-Mayer (MGM) has a trademark on the sound of a roaring lion that is part of the company graphic it presents at the beginning of MGM films.

^{1.} Lanham Act §45.



FIGURE 1.3 Example of an MGM Trademark

However, the protection afforded by trademark law is not universal and only provides exclusivity in uses of the protected mark in relation to certain goods or services. For example, the Owens Corning trademark on the color pink does not enable the company to control all uses of the color pink throughout the universe—it cannot even control uses of the color pink on all commercial products. The protection only gives Owens Corning exclusivity in making pink fiberglass insulation and possibly some closely related products or services.

The true scope of protection afforded by trademark law is largely misunderstood, and is exemplified by a famous catch-phrase trademark that I still frequently get calls about. In 2004, Donald Trump's "The Apprentice" was one of the hottest shows on television. The show features a group of people, sometimes celebrities, who compete in business challenges and are eliminated one by one until a single winning contestant remains. At the end of each program, a contestant is eliminated in a boardroom by Donald Trump, who exclaims "You're fired!" This simple catch-phrase became wildly popular and quickly grew into a central brand for the show and for Trump himself. When the media began to report that Trump filed a trademark for the phrase "You're fired!" public reaction was one of outrage and disgust for the trademark system. People largely believed that Trump's trademark would allow him to sue anyone who said "You're fired!" and require anyone who used the phrase to pay him a royalty.

What most media reports failed to mention or clearly explain was that trademark law only provides protection for uses of a mark in relation to specific goods and services that the applicant actually sells or intends to sell. Trump's trademark applications sought to cover the use of the "You're fired!" mark on products like paper goods, home furnish-

ings, pillows, housewares, linens, toys, and sporting goods. Although Trump ultimately abandoned all of his trademark applications, several registered trademarks for the phrase "You're fired!" are alive and well. For example, Mark Burnett, producer of "The Apprentice," and other shows, such as "Survivor," and "The Voice," owns several trademarks for "You're fired!" claiming "entertainment services in the nature of a reality television series" and for goods such as "shirts, hats, and beverage glassware." Another completely unrelated and independently owned "You're fired!" registered trademark claims services of a do-it-yourself pottery business.²

The idea of universally protected catch-phrases still persists and I regularly confer with people who want to collect royalties from anyone who uses a new saying or slogan they believe they have created. These people are disappointed to hear that trademarks offer protection in relation to specific goods and services and, most important, protect only those goods and services that a company actually sells or intends to sell. Trademark applications can be filed based on an intent to use the mark in commerce, but eventually applicants must prove that they are using the mark in association with each and every claimed good or service. If you do not sell or intend to sell goods or services, you cannot claim the benefits of trademark protection.

This requirement of using the mark in commerce in relation to goods or services makes sense when considering that the purpose of trademark protection is to promote economic efficiency by giving consumers confidence in the source of goods or services when making buying decisions. For example, when you step into a Starbucks or McDonalds you are guaranteed one thing—consistency. Regardless of whether you are in Seattle, San Francisco, or Manhattan you know that coffee at a Starbucks café will taste essentially the same and burgers at a McDonalds will not vary from place to place. Without trademark protection, competing business could hijack the brand and goodwill

^{1.} U.S. Trademarks 3263242, 3469268, 3269040 to JMBP, Inc.

^{2.} U.S. Trademark 3208352 to You're Fired LLC for: providing studio facilities for paint your own pottery and create your own mosaics; providing do-it-yourself ceramic studio facilities with precast ceramic pottery that is painted on-site by customers and then glazed and/or kiln-fired; and providing do-it-yourself studio facilities with mosaic tiles that are pieced together to create mosaics on-site by customers.

associated with the Starbucks or McDonalds name and steal customers that would have chosen a legitimate store.

The key is confusion. Trademark law seeks to prevent consumer confusion by assuring that they know who made a given product when making buying decisions. On the other hand, lack of confusion allows the same exact trademark to be used by many companies simultaneously. For example, a search for "EAGLE" at the United States Patent & Trademark Office (USPTO) returns nearly 1,700 active registered trademarks with the vast majority of them being owned by completely separate companies or individuals. These trademarks can be used at the same time because consumers are not likely to be confused between any given mark. Consider that the goods and services of these "EAGLE" marks range from potato chips, to shirts, to insurance. If buyers pick up a bag of Eagle brand potato chips, they are not likely to assume that the chips were produced by Eagle shirt company or Eagle insurance company. Each of these "EAGLE" marks is equally viable because the goods and services are not overlapping to the point that consumer confusion will occur.

TRADE SECRETS

In stark contrast to trademarks that are used publicly in commerce, trade secret laws protect certain inventions and assets that a business decides to keep secret. Unlike patents, copyrights, and trademarks, there is no official registration process for trade secrets and the laws related to trade secret protection may be different from state to state. By simply keeping certain things secret in the right way, a company can be afforded the protections of trade secret laws.

Despite some jurisdictional differences, trade secret laws almost universally require protectable trade secrets to (1) not be generally known to the public; (2) have economic value derived from being non-public; and (3) be the subject of reasonable efforts to maintain their secrecy. Not being generally known to the public means that the information or technology should not be available from the party trying to keep it secret, nor should it be available from any other source. However, a novel combination of known information or technologies can still be regarded as nonpublic. For example, the individual elements of customer lists may be known, but if the compilation of elements is not

generally known, such proprietary lists can still be the subject of trade secret protection.

A company must also make reasonable efforts to keep its trade secrets nonpublic. Whether secrecy efforts are considered reasonable varies by state and from case to case. However, some basic rules for protecting trade secrets include clearly marking materials as being secret; requiring personnel handling them to sign nondisclosure or noncompete agreements; having computers with secret information password-protected; and keeping secret items in locked rooms or locations that are not accessible by unauthorized persons.

Public companies in the United States are estimated to own more than \$5 trillion in trade secret information, which can include both useful and artistic inventions that may or may not be ultimately protectable by patents, trademarks, or copyrights or that may remain exclusively a trade secret. Examples of innovations that typically remain trade secrets include production methods, formulas, client lists, business plans, financial records, and positive or negative knowhow. Some of the most valuable trade secrets are embodied in products that you likely come in contact with on a regular basis.

For example, the formula for making Coca-Cola has been a closely guarded secret for more than 125 years, since it was invented by Dr. John S. Pemberton in 1886. The formula was initially shared exclusively with a small core group within the business and was purportedly written down for the first time in 1919 when the company was bought by Ernest Woodruff and a group of investors. This single written copy was housed in the same Atlanta bank vault from 1925 to 2012, when it was transferred to a new state-of-the-art vault at the World of Coca-Cola museum. Other famous product formulas protected by trade secrets include WD-40 lubricant, Listerine mouthwash, Bush's Baked Beans, KFC chicken, and even the method of determining the *New York Times* best sellers list.

Trade secret protection is also helpful for protecting innovations that will later be the subject of patent, trademark, or copyright applica-

^{1.} See John P. Hutchins, *The Corporation's Valuable Assets: IP Rights under Sarbanes-Oxley*, in 26th Annual Institute on Computer & Internet Law 289, 291-292 (PLI Intellectual Property, Course Handbook Series No. G-859, 2006).

tions. For example, in the initial stages of developing patentable technology and while the invention remains a secret within the company, trade secret protection can fill the gap until patent applications are filed, and will remain a viable protection option until the patent application is published and becomes publicly available.

Alternatively, in some cases, even though an invention would be eligible for patent protection, a business may decide to forego that protection in favor of trade secret protection. Patents will have a term of around 20 years before the invention becomes public domain, whereas trade secret protection can last indefinitely. However, keeping something a trade secret for too long can cause the forfeiture of patent rights and, if the secret subsequently becomes exposed or otherwise known to the public, then all protection is lost.

COPYRIGHTS

Copyrights protect "original works of authorship fixed in any tangible medium of expression" as defined by federal law. Such works include literary works; musical works; dramatic works; pantomimes and choreographic works; pictorial, graphic, and sculptural works; motion pictures and other audiovisual works; sound recordings; and architectural works. This covers a wide variety of artistic and expressive works, including books, blog posts, movies, songs, paintings, and even the code for software.

However, an important limitation is that copyrights only protect expression and not an underlying idea, product, or invention that is described or shown in the work of authorship and will not protect useful products or articles.³ As illustrated by Figure 1.1, this puts copyrights in direct opposition to patents, which exclusively protect utilitarian articles and products. Failing to completely understand the respective coverage of patents and copyrights often leads to an inadvertent forfeiture of patent rights or incomplete protection of a product or invention.

^{1.} Copyright Act § 102(a).

^{2.} Copyright Act § 102(a).

^{3.} Copyright $Act \S 102(b)$ "In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work."

The tricky and confusing protection of products such as furniture and clothing is a great illustration of how patents and copyrights protect the same product differently, yet synergistically. Although the design of furniture is often aesthetically pleasing and artistic, such pieces are nonetheless considered to be utilitarian because of their intrinsic function as a place to sit or lounge. Accordingly, the physical design and configuration of furniture cannot be protected by copyright and must instead be protected by patents. At the same time, copyrights can protect important aspects of furniture where patents fall short. Fabric designs or sculptural works are non-utilitarian works of authorship that are protected by copyright, and these works do not lose their protection when applied to useful articles. Accordingly, the pattern of fabric on a couch or a carving on a wooden chair would be protected by copyright, but the overall physical design and configuration of the furniture would still need to be protected by a patent.

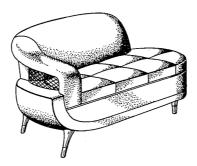


FIGURE 1.4 Design Patent for a Couch

Unfortunately, I routinely see misunderstanding these subtle differences in patent and copyright protection result in the complete loss of important patent rights. For example, after several years of selling a line of clothing that included some novel design features, a potential client approached me to discuss asserting her copyrights against a competitor that was producing similar clothing that had these same novel features. She had self-filed a series of copyright applications that included numer-

ous photographs and descriptions of the novel features in her clothing line. Needless to say, she was quite disappointed when I informed her that these copyrights protected nothing more than the photographs that she filed and possibly the specific wording that described her invention. The novel design of her clothing was not protected by copyright because clothing is considered a utilitarian article and because copyrights cannot protect underlying ideas or concepts. Moreover, because the product line had been on sale for a number of years, the time limit to patent the novel design features had expired and her important invention was now effectively in the public domain and usable by anyone. She therefore had no ability to exclude others from using her invention and could not require them to pay a license to use the design. Her competitors were able to freely make and sell her novel design with impunity and there was no way to recover the rights she had unknowingly forfeited.

INSIDER TIP: MARKING YOUR IP

You may be aware of markings or symbols such as "patent pending," TM, ©, and ®, that mark products, logos, or names, but the meaning and proper use of these identifiers is not always clear. Many new businesses are surprised to find that they can even use some of these IP markings without any formal registration or paying fees. For example, both the TM and ® are used to identify trademarks, but ® can only be used after federal trademark registration. However, the TM symbol can be used freely regardless of registration. Markings like "pat. pend." can only be used once a formal patent application has been filed for a product. On the other hand, the © symbol can be used to identify copyright protection regardless of federal registration. Tasteful use of the TM and © marks is therefore a great way to market and identify your valuable IP for free before you pay a cent in fees for formal registration.

Copyrights can form an important part of an intellectual property portfolio, but understanding their proper use and complement to other forms of protection is essential when planning your personalized intellectual property protection strategy.

PATENTS

In contrast to copyrights, patents can protect an underlying form or function of utilitarian inventions. Utility patents protect any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.¹ Mechanical devices, computer software and hardware, biotechnology, pharmaceuticals, and methods of making or using these inventions are just a few examples of the wide variety of subject matter that can enjoy patent protection. A second type of patent—the design patent—protects any new, original, and ornamental design for an article of manufacture.² Much like copyrights protect the ornamental design of sculpture and other artistic works, design patents protect the ornamental design of utilitarian products without protecting the underlying concept of such products.

UTILITY VS. DESIGN PATENTS

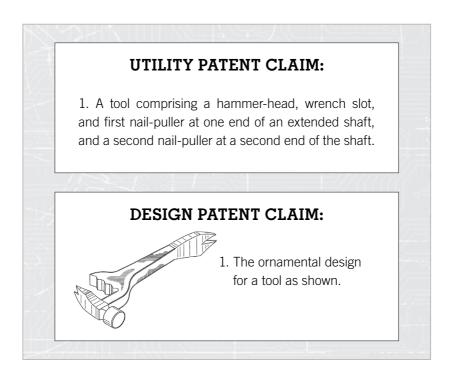
Utility Patents	Design Patents
Cover idea or product generally	Cover one specific design
Substantially broader protection	More narrow protection
More expensive	Substantially less expensive
Takes 2–5+ years to issue	Can issue in 1 year or less
Much more difficult to obtain	Almost always allowed

Although design patents typically represent just 5% of total patent applications filed each year and are only useful for protecting certain types of products, design patent protection has become an increasingly valuable, yet often overlooked IP tool. Recent court cases have greatly expanded the scope of protection that design patents afford. Despite protecting only a single specific design shown in the drawings of the

^{1. 35} U.S.C. §101.

^{2. 35} U.S.C. §171.

patent, a design patent is substantially less expensive because of the simplicity of the application and high rate of application allowance. Moreover, the USPTO backlog for examining design patents is much less compared to utility patents, so design patents can be issued in a matter of months instead of years.



In contrast, utility patents can provide substantially broader protection because the invention protection is defined by a claim of words instead of drawings. In the example shown above, the design patent drawing claim protects one specific design of a tool having two-nail pullers, a hammer-head, and a wrench slot. By changing the proportion, shape, or configuration to a design that looks different from the picture, a competitor would be able to circumvent and not infringe the design patent. The example utility patent claim provides significantly broader protection because, as long as a competing product has all of the elements described, the product will still infringe the utility patent. Unlike the design patent, the utility patent claim covers the product

shown in the design patent along with numerous other designs that may be substantially different in proportion, shape, or configuration.

To be eligible for patent protection, a claimed invention must be adequately described in the patent application and must be new and non-obvious when compared to existing products or technology disclosures (known as "prior art"). Adequate disclosure requires that a person having ordinary skill in the art would be able to make and use the invention based on the description provided. In other words, an average person who works in the relevant area of technology should have enough information from the patent alone to construct and operate the claimed invention without undue experimentation.

A claimed invention is considered new when no single piece of prior art describes the invention in full. In contrast, an invention is non-obvious when that same imaginary person having ordinary skill in the art would not find the invention obvious in view of one or more prior art references. The vast majority of patent applications that are rejected and never issue as an enforceable patent ultimately fail because they are deemed obvious by a patent examiner at the USPTO. Because understanding this important standard is essential in evaluating the patentability of an invention, when drafting a patent application, and during the examination process, the coming chapters will delve deeper into the concept of obviousness and novelty. Additionally, because utility patents are more complex and add greater relative value to a patent portfolio, the remainder of the chapters focuses on utility patents, but do not forget that design patents can have an important role in a patent portfolio and an overall intellectual property protection strategy.

BUILDING AN INTELLECTUAL PROPERTY PORTFOLIO AND PROTECTION PLAN

Even a small business can produce products and innovations that could conceivably be protected by tens, if not hundreds, of patents, trademarks, and/or copyrights. With an unlimited budget, it would be

^{1. 35} U.S.C. § 112.

possible to fully protect each of the multitude of unique inventions that are inherently embodied in even the simplest of products and innovations. In the real world, however, businesses must carefully develop an IP strategy that extracts the greatest protection and marketing value within a reasonable budget. A difficulty that most innovators face is identifying all the possible ways that a given product or technology can be protected, putting a relative value on the array of options, and coming up with an IP budget that is sufficient yet not wasteful. Unfortunately, there is no cookie-cutter solution because each business is unique and good advice can be hard to come by.

This chapter provides insight on how to protect IP with patents, trademarks, copyrights, and trade secrets, but it should not be a substitute for the expert evaluation and planning of a skilled patent or IP attorney. In the beginning stages of developing an idea or business, a short amount of time with a trusted attorney is cheap (and often free) insurance against inadvertently overlooking or forfeiting IP rights that would be an essential foundation for an emerging company.

To illustrate how an IP evaluation can uncover numerous inventions hidden within a single product or business, let's walk through an evaluation of a theoretical growing business that currently only has a single product—a tractor.



FIGURE 1.5

Because tractors are utilitarian products, patent protection should be the first option that comes to mind. Utility patents could protect the overall structure or function of the tractor or may protect any separate part or collection of parts. Individual utility patents could cover the exhaust system, transmission, engine, drive train, tires, electronic systems, or any part that is sufficiently new and non-obvious over existing parts. Utility patents could also protect proprietary methods that relate to the operation of any of these parts, either individually or collectively, including methods of manufacturing these parts. Again, any such method simply needs to be new and non-obvious over known methods.

Numerous design patents can also protect this single model of tractor. In addition to protecting the look of the complete vehicle, design patents can protect ornamental aspects of any specific part. The cab, tire treads, engine cover, fenders, and even the ornamental design of internal components could be the subjects of design patents. Design patents on the overall design and also on the design of individual parts can be important because of the different scope of protection that each provides. For example, a competitor could work-around a design patent on the whole tractor by making changes to some parts of the protected design and leaving some parts exactly the same. In contrast, design patents on specific parts provide protection regardless of the look of the parts adjacent to the protected design or even whether the protected parts are attached to a tractor or other vehicle.

Because tens, if not hundreds, of design and utility patents could protect this single product, the company would need to put a priority on patents that protect the most valuable designs, functions, configurations, or methods. As discussed in the coming chapters, choosing how to build a patent portfolio around a given product also depends on the business strategy of a company. Along with providing exclusivity in patented technology, a well-crafted patent portfolio can also be used to attract customers, business partners, and investors.

Trademarks can protect both utilitarian and artistic aspects of this specific tractor product and the business as a whole, including a business name, product name, slogans, logos, and even distinctive designs

or colors that relate to the tractor or business in general. For example, the John Deere Company is famous for its distinctive yellow and green farm equipment, which is an important color trademark of the business. Its leaping deer logo and the "JOHN DEERE" name shown in Figure 1.6 are also examples of company trademarks. Distinctive parts of our example tractor can also be the subject of trademark protection. If the company considers the look of specific parts to be important to differentiating its brand, trademarks may provide limited exclusivity for these elements. For example, in addition to design patent protection on various body designs, Bentley Motors has trademarks on two distinctive designs of the grilles of Bentley vehicles.¹ Even though trademarks can protect the ornamental design of utilitarian articles as design patents do, trademark protection is more limited than a design patent. Trademarks provide exclusivity in relation to specific goods or services, but design patents apply to an ornamental design of an article regardless of how the article and design are used. Trademark protection can last indefinitely, as long as the mark is used in conjunction with the claimed goods and services, whereas design patent protection only lasts for 17 years from when the patent issues.



FIGURE 1.6

^{1.} U.S. Trademarks 1512167 and 1246990 to a grille design; U.S. design patent 686535 to a motor vehicle.



FIGURE 1.7 Design patent for a Bentley automobile

Copyrights can also be important in protecting our example tractor, although less so than patents, trademarks, and trade secrets, which are better suited for utilitarian innovations. Because copyrights protect expressive works, artistic logos or paint designs of the tractor may be protected by copyright. Additionally, marketing materials for the tractor and company, including photographs, commercials, print advertisements, and promotional writings can be protected by copyright. Protection afforded by a copyright can last the lifetime of the creator plus 70 years or more.

Trade secret protection is beneficial as temporary protection or may be used for long-term protection of certain innovations related to the tractor. For example, while developing the features, marks, and parts that may be protected by patent, copyright, or trademark discussed above, the company may use nondisclosure agreements with employees and contractors to control disclosure outside the company. However, once such innovations are disclosed or made available publicly, trade secret protection will be lost. Where innovations related to the tractor cannot be reversed engineered from the product, trade secret protection may remain active as long as secrecy is maintained. For example, methods of producing certain parts, or the tractor as a whole, may remain a trade secret along with proprietary formulations of paints, lubricants, oils, or materials. For company assets such as client or vendor lists, trade secret law may provide protection where no other type of IP protection is applicable.

CHAPTER 1 SUMMARY

- Trademarks protect identifying "marks" (e.g., logos or slogans) used in association with specific goods or services.
- Trade secret law provides remedy for misappropriation of economically valuable knowledge that was not known publicly and where reasonable efforts were used to maintain its secrecy.
- Copyrights protect artistic and expressive works including books, websites, movies, songs, photographs, paintings, and even the code of software.
- Patents protect an underlying form or function of utilitarian inventions (e.g., mechanical devices, computer software and hardware, biotechnology, pharmaceuticals, and methods of making and using such inventions).
- A single product can be the subject of many trademarks, copyrights, trade secrets, and patents.