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**17/ENG06/001**

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* Briefly discuss the following intellectual property protection methods;
1. **PATENT :**

A patent is a form of [intellectual property](https://en.wikipedia.org/wiki/Intellectual_property) that gives the owner the legal right to exclude others from making, using, selling and importing an [invention](https://en.wikipedia.org/wiki/Invention) for a limited period of years, in exchange for publishing an [enabling public disclosure](https://en.wikipedia.org/wiki/Sufficiency_of_disclosure) of the invention. In most countries patent rights fall under [civil law](https://en.wikipedia.org/wiki/Private_law) and the patent holder needs to sue someone [infringing the patent](https://en.wikipedia.org/wiki/Patent_infringement) in order to enforce his or her rights. In some [industries](https://en.wikipedia.org/wiki/Outline_of_industry#Major_industries) patents are an essential form of [competitive advantage](https://en.wikipedia.org/wiki/Competitive_advantage); in others they are irrelevant.

The procedure for granting patents, requirements placed on the patentee, and the extent of the exclusive rights vary widely between countries according to national laws and international agreements. Typically, however, a patent application must include one or more [claims](https://en.wikipedia.org/wiki/Patent_claim) that define the invention. A patent may include many claims, each of which defines a specific property right. These claims must meet relevant [patentability](https://en.wikipedia.org/wiki/Patentability) requirements, such as [novelty](https://en.wikipedia.org/wiki/Novelty_%28patent%29), [usefulness](https://en.wikipedia.org/wiki/Utility_%28patent%29), and [non-obviousness](https://en.wikipedia.org/wiki/Inventive_step_and_non-obviousness).

**EFFECTS**

A patent does not give a right to make or use or sell an invention. Rather, a patent provides, from a legal standpoint, the [right](https://en.wikipedia.org/wiki/Natural_and_legal_rights) to *exclude others* from making, using, selling, offering for sale, or importing the patented [invention](https://en.wikipedia.org/wiki/Invention) for the [term of the patent](https://en.wikipedia.org/wiki/Term_of_patent), which is usually 20 years from the filing date subject to the payment of [maintenance fees](https://en.wikipedia.org/wiki/Maintenance_fee_%28patent%29). From an economic and practical standpoint however, a patent is better and perhaps more precisely regarded as conferring upon its proprietor "a right to *try* to exclude by asserting the patent in court", for many granted patents turn out to be invalid once their proprietors attempt to assert them in court. A patent is a limited property right the government gives inventors in exchange for their agreement to share details of their inventions with the public. Like any other property right, it may be sold, licensed, [mortgaged](https://en.wikipedia.org/wiki/Mortgage_law), assigned or transferred, given away, or simply abandoned.

**CHALLENGES**

In most jurisdictions, there are ways for third parties to challenge the validity of an allowed or issued patent at the national patent office; these are called [opposition proceedings](https://en.wikipedia.org/wiki/Opposition_proceeding). It is also possible to challenge the validity of a patent in court. In either case, the challenging party tries to prove that the patent should never have been granted. There are several grounds for challenges: the claimed subject matter is not [patentable subject matter](https://en.wikipedia.org/wiki/Patentable_subject_matter) at all; the claimed subject matter was actually not new, or was obvious to the [person skilled in the art](https://en.wikipedia.org/wiki/Person_skilled_in_the_art), at the time the application was filed; or that some kind of fraud was committed during prosecution with regard to listing of inventors, representations about when discoveries were made, etc. Patents can be found to be invalid in whole or in part for any of these reasons.

**BENEFITS**

* Patents provide incentives for economically efficient [research and development](https://en.wikipedia.org/wiki/Research_and_development).
* In accordance with the original definition of the term "patent", patents are intended to facilitate and encourage disclosure of [innovations](https://en.wikipedia.org/wiki/Innovation) into the [public domain](https://en.wikipedia.org/wiki/Public_domain) for the [common good](https://en.wikipedia.org/wiki/Common_good).
* In many industries (especially those with high [fixed costs](https://en.wikipedia.org/wiki/Fixed_cost) and either low [marginal costs](https://en.wikipedia.org/wiki/Marginal_cost) or low reverse engineering costs — computer processors, and pharmaceuticals for example), once an invention exists, the cost of commercialization (testing, tooling up a factory, developing a market, etc.) is far more than the initial conception cost.

**CRITICISM**

Legal scholars, economists, activists, policymakers, industries, and trade organizations have held differing views on patents and engaged in contentious debates on the subject.

Contemporary criticisms have arguments, claiming that patents block innovation and waste resources that could otherwise be used productively to improve technology.

These and other research findings that patents decreased innovation because of the following mechanisms:

* Low quality, already known or obvious patents hamper innovation and commercialization.
* Patents weaken the [public domain](https://en.wikipedia.org/wiki/Public_domain) and innovation that comes from it.
* Blocking the use of fundamental knowledge with patents creates a "[tragedy of the anticommons](https://en.wikipedia.org/wiki/Tragedy_of_the_anticommons), where future innovations cannot take place outside of a single firm in an entire field.
* Patents apply a "one size fits all" model to industries with differing needs that is especially unproductive for the software industry.
1. **COPYRIGHT :**

 It is the [exclusive right](https://en.wikipedia.org/wiki/Exclusive_right) given to the creator of a [creative work](https://en.wikipedia.org/wiki/Creative_work) to reproduce the work, usually for a limited time.The creative work may be in a literary, artistic, educational, or musical form. Copyright is intended to protect the original expression of an idea in the form of a creative work, but not the idea itself.

 ***RIGHTS GRANTED;***

* **Economic rights**: With any kind of property, its owner may decide how it is to be used, and others can use it lawfully only if they have the owner's permission, often through a license. The owner's use of the property must, however, respect the legally recognised rights and interests of other members of society. So the owner of a copyright-protected work may decide how to use the work, and may prevent others from using it without permission.

**Right owners can authorize or prohibit:**

1. Reproduction of the work in various forms, such as printed publications or sound recordings;
2. Distribution of copies of the work;
3. Public performance of the work;
4. Broadcasting or other communication of the work to the public;
5. Translation of the work into other languages; and
6. Adaptation of the work, such as turning a novel into a screenplay.
* **Moral rights:** Moral rights are concerned with the non-economic rights of a creator. They protect the creator's connection with a work as well as the integrity of the work. Moral rights are only accorded to individual authors and in many national laws they remain with the authors even after the authors have transferred their economic rights. In some EU countries, such as France, moral rights last indefinitely. In the UK, however, moral rights are finite.

***RIGHTS GRANTED:***

* the right to claim authorship of a work (sometimes called the right of paternity or the right of attribution); and
* the right to object to any distortion or modification of a work, or other derogatory action in relation to a work, which would be prejudicial to the author's honor or reputation (sometimes called the right of integrity).

**CRITICISM**

Some sources are critical of particular aspects of the copyright system. This is known as a debate over[***copynorms***](https://en.wikipedia.org/wiki/Copynorms). Particularly to the background of uploading content to internet platforms and the digital exchange of original work, there is discussion about the [copyright aspects of downloading and streaming](https://en.wikipedia.org/wiki/Copyright_aspects_of_downloading_and_streaming), the [copyright aspects of hyperlinking and framing](https://en.wikipedia.org/wiki/Copyright_aspects_of_hyperlinking_and_framing).

In Europe consumers are acting up against the raising costs of music, film and books, and as a result [Pirate Parties](https://en.wikipedia.org/wiki/Pirate_Party) have been created. Some groups reject copyright altogether, taking an [anti-copyright](https://en.wikipedia.org/wiki/Anti-copyright) stance. The perceived inability to enforce copyright online leads some to advocate [ignoring legal statutes when on the web](https://en.wikipedia.org/wiki/Crypto-anarchism).

1. **TRADEMARK:**

It is a type of [intellectual property](https://en.wikipedia.org/wiki/Intellectual_property) consisting of a recognizable [sign](https://en.wikipedia.org/wiki/Sign_%28semiotics%29), [design](https://en.wikipedia.org/wiki/Design), or [expression](https://en.wikipedia.org/wiki/Expression_%28language%29) which identifies [products](https://en.wikipedia.org/wiki/Good_%28economics_and_accounting%29) or [services](https://en.wikipedia.org/wiki/Service_economies) of a particular source from those of others,[[2]](https://en.wikipedia.org/wiki/Trademark#cite_note-2)[[3]](https://en.wikipedia.org/wiki/Trademark#cite_note-3) although trademarks used to identify services are usually called [service marks](https://en.wikipedia.org/wiki/Service_mark).[[4]](https://en.wikipedia.org/wiki/Trademark#cite_note-4)[[5]](https://en.wikipedia.org/wiki/Trademark#cite_note-5) The trademark owner can be an individual, [business organization](https://en.wikipedia.org/wiki/Business_organizations), or any [legal entity](https://en.wikipedia.org/wiki/Juristic_person). A trademark may be located on a [package](https://en.wikipedia.org/wiki/Packaging_and_labeling), a [label](https://en.wikipedia.org/wiki/Label), a [voucher](https://en.wikipedia.org/wiki/Voucher), or on the product itself. For the sake of [corporate identity](https://en.wikipedia.org/wiki/Corporate_identity), trademarks are often displayed on company buildings. It is legally recognized as a type of [intellectual property](https://en.wikipedia.org/wiki/Intellectual_property).

**SYMBOLS**

The two symbols associated with trademarks, **™** (the [trademark symbol](https://en.wikipedia.org/wiki/Trademark_symbol)) and **®** (the [registered trademark symbol](https://en.wikipedia.org/wiki/Registered_trademark_symbol)), represent the status of a mark and accordingly its level of protection. While ™ can be used with any common law usage of a mark, ® may only be used by the owner of a mark following registration with the relevant national authority, such as the [U.S. Patent and Trademark Office](https://en.wikipedia.org/wiki/U.S._Patent_and_Trademark_Office) (USPTO or PTO). The proper manner to display either symbol is immediately following the mark in superscript style.

**TERMINOLOGY**

Terms such as "mark", "[brand](https://en.wikipedia.org/wiki/Brand)" and "[logo](https://en.wikipedia.org/wiki/Logo)" are sometimes used interchangeably with "trademark". "Trademark", however, also includes any device, brand, label, name, signature, word, letter, numerical, shape of goods, packaging, color or combination of colors, smell, sound, movement or any combination thereof which is capable of distinguishing goods and services of one business from those of others. It must be capable of graphical representation and must be applied to goods or services for which it is registered.

**ENFORCING RIGHTS**

* The extent to which a trademark owner may prevent unauthorized use of trademarks which are the same as or similar to its trademark depends on various factors such as whether its trademark is registered, the similarity of the trademarks involved, the similarity of the products or services involved, and whether the owner's trademark is *well known* or, under U.S. law relating to [trademark dilution](https://en.wikipedia.org/wiki/Trademark_dilution), *famous*.
* If a trademark has not been registered, some jurisdictions (especially [Common Law](https://en.wikipedia.org/wiki/Common_Law) countries) offer protection for the [business](https://en.wikipedia.org/wiki/Business) [reputation](https://en.wikipedia.org/wiki/Reputation) or [goodwill](https://en.wikipedia.org/wiki/Goodwill_%28business%29) which attaches to unregistered trademarks through the [tort](https://en.wikipedia.org/wiki/Tort) of [passing off](https://en.wikipedia.org/wiki/Passing_off_%28legal_term%29). Passing off may provide a remedy in a scenario where a business has been trading under an unregistered trademark for many years, and a rival business starts using the same or a similar mark.
* If a trademark has been registered, then it is much easier for the trademark owner to demonstrate its trademark rights and to enforce these rights through an infringement action. Unauthorized use of a registered trademark need not be intentional in order for infringement to occur, although damages in an infringement [lawsuit](https://en.wikipedia.org/wiki/Lawsuit) will generally be greater if there was an intention to deceive.

**LICENSING**

* Licensing means the trademark owner (the licensor) grants a permit to a third party (the licensee) in order to commercially use the trademark legally. It is a contract between the two, containing the scope of content and policy. The essential provisions to a trademark license identify the trademark owner and the licensee, in addition to the policy and the goods or services agreed to be licensed.
* Most jurisdictions provide for the use of trademarks to be licensed to third parties. The licensor must monitor the quality of the goods being produced by the licensee to avoid the risk of trademark being deemed abandoned by the courts. A trademark license should therefore include appropriate provisions dealing with quality control, whereby the licensee provides warranties as to quality and the licensor has rights to inspection and monitoring.
1. **TRADE SECRET:**

They are a type of [intellectual property](https://en.wikipedia.org/wiki/Intellectual_property) that comprise [formulas](https://en.wikipedia.org/wiki/Formula), [practices](https://en.wikipedia.org/wiki/Best_practice), [processes](https://en.wikipedia.org/wiki/Business_process), [designs](https://en.wikipedia.org/wiki/Design), [instruments](https://en.wikipedia.org/wiki/Legal_instrument), [patterns](https://en.wikipedia.org/wiki/Pattern), or compilations of information that have inherent economic value because they are not generally known or readily ascertainable by others, and which the owner takes reasonable measures to keep secret. In some [jurisdictions](https://en.wikipedia.org/wiki/Jurisdiction), such secrets are referred to as [*confidential information*](https://en.wikipedia.org/wiki/Confidential_information).

**VALUE**

Trade secrets are an important, but invisible component of a company's [intellectual property](https://en.wikipedia.org/wiki/Intellectual_property) (IP). Their contribution to a company's value, measured as its [market capitalization](https://en.wikipedia.org/wiki/Market_capitalization), can be major. Being invisible, that contribution is hard to measure. Patents are a visible contribution, but delayed, and unsuitable for internal [innovations](https://en.wikipedia.org/wiki/Innovation). Having an internal [scoreboard](https://en.wikipedia.org/wiki/Dashboard_%28management_information_systems%29) provides insight into the cost of risks of employees leaving to serve or start competing ventures.

**MISAPPROPRIATION**

Companies often try to discover one another's trade secrets through lawful methods of [reverse engineering](https://en.wikipedia.org/wiki/Reverse_engineering) or employee poaching on one hand, and potentially unlawful methods including [industrial espionage](https://en.wikipedia.org/wiki/Industrial_espionage) on the other. Acts of industrial espionage are generally illegal in their own right under the relevant governing laws, and penalties can be harsh. The importance of that illegality to trade secret law is: if a trade secret is acquired by improper means (a somewhat wider concept than "illegal means" but inclusive of such means), then the secret is generally deemed to have been ***misappropriated.***

Thus, if a trade secret has been acquired via industrial espionage, its acquirer will probably be subject to legal liability for having acquired it improperly⁠ ⁠— this notwithstanding, the holder of the trade secret is nevertheless obliged to protect against such espionage to some degree in order to safeguard the secret, as under most trade secret regimes, a trade secret is not deemed to exist unless its purported holder takes reasonable steps to maintain its secrecy.

**CRITICISM**

Trade secret regulations that mask the composition of chemical agents in [consumer products](https://en.wikipedia.org/wiki/Consumer_product) have been criticized for allowing the trade secret holders to hide the presence of potentially harmful and [toxic substances](https://en.wikipedia.org/wiki/Toxicity). It has been argued that the public is being denied a clear picture of such products' safety, whereas competitors are well positioned to analyze its chemical composition. In 2004, the National Environmental Trust tested 40 common consumer products; in more than half of them they found toxic substances not listed on the [product label](https://en.wikipedia.org/wiki/Product_label).