

UNIT 4

Intellectual Property

(8 Hours) — Cyber Law & Professional Ethics (CACS401)

Please read: These notes are prepared as a study aid and **may contain errors** or out-of-date details, especially section numbers, penalties, dates, case names and statistics. Always cross-check with your prescribed textbook, class lectures, and the official text of any law (Nepal Law Commission website) before relying on them in an exam or in practice.

Syllabus note: the syllabus word "Patient" is a typing error for **Patent**, and that is what these notes cover. Durations of protection under Nepali law (especially for patents and trademarks) are quoted from memory of the older Acts and may have changed; confirm with the current text.

4.1 Intellectual Property (IP)

Intellectual property refers to creations of the mind (inventions, literary and artistic works, designs, symbols, names and images used in commerce) that the law protects through exclusive rights for a limited time. The aim is to encourage creativity and investment by letting creators profit, while eventually allowing the public to benefit when the protection ends. IP is generally divided into **copyright** and **industrial property** (patents, trademarks, industrial designs, trade secrets).

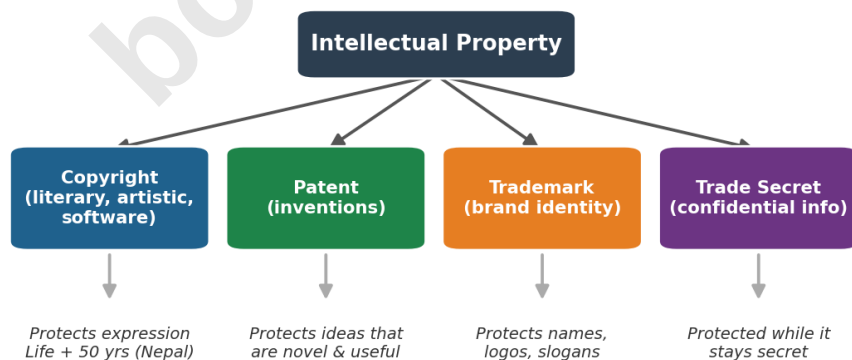


Figure 4.1: Main forms of intellectual property

International framework: the **Berne Convention** (1886, copyright), the **Paris Convention** (1883, industrial property), the **TRIPS Agreement** of the WTO (1994, minimum global standards), and **WIPO** (World Intellectual Property Organization), which administers most IP treaties. Nepal joined the WTO in 2004 and is a member of the Berne Convention and WIPO.

4.2 Copyright

Copyright protects the **expression** of an idea in an original work of authorship that is fixed in a tangible form: books, articles, music, films, photographs, paintings, databases and **computer software** (source and object code). It arises automatically on creation in most countries; registration is optional but helpful as proof.

- **Exclusive rights of the owner:** to reproduce, distribute, adapt (create derivative works), perform and display the work publicly, and to authorise others to do so.
- **Not protected:** ideas, facts, procedures, methods of operation, algorithms as such (idea/expression dichotomy), and short phrases or names.
- **Term in Nepal:** generally the life of the author plus 50 years (many other countries use life plus 70).
- **Moral rights:** right of attribution and to object to distortion of the work.

Fair Use / Fair Dealing

Copying without permission is allowed in limited situations such as criticism, news reporting, teaching, research or parody. US courts consider four factors: (1) purpose and character of use (commercial or educational, transformative), (2) nature of the copyrighted work, (3) amount and substantiality used, and (4) effect on the market for the original. Fair use is decided case by case. In *Google v. Oracle* (US Supreme Court, 2021), Google's copying of Java API declarations for Android was held to be fair use.

Digital Issues

- **Software piracy:** unauthorised copying and distribution of software. Forms: end-user copying, hard-disk loading, counterfeit software, online sharing, licence overuse.
- **Digital Millennium Copyright Act (DMCA, US, 1998):** bans circumventing copy-protection and gives online platforms "safe harbour" from liability if they promptly remove infringing content after notice.
- **WIPO Copyright Treaty (1996)** extends protection to digital works.
- **Landmark cases:** *Sony v. Universal* (1984, Betamax, recording for personal use was fair use) and *A&M Records v. Napster* (2001, peer-to-peer file sharing infringed).
- **Nepal:** Copyright Act, 2059 (2002) and Copyright Regulations (2004). Computer programs are protected as literary works; the Copyright Registrar's Office handles registration; infringement can bring fines and imprisonment.

Example 4.1: Copyright or Not?

Ram writes a program that sorts numbers using a well-known sorting algorithm. Sita copies Ram's source code line by line and sells it. Later, Hari writes his own code that uses the same algorithm. Who infringes?

Solution

Copyright protects Ram's **specific code** (expression), not the algorithm (idea). Sita **infringes** by copying and selling. Hari does **not** infringe, because he wrote independent code for the same idea.

4.3 Patents

A **patent** is an exclusive right granted by the state to an inventor for a new invention, in return for public disclosure of how it works. During the term (normally 20 years from filing under TRIPS) others may not make, use, sell or import the invention without permission.

Conditions for patentability: the invention must be **novel** (new, not in the prior art), involve an **inventive step** (non-obvious), and be capable of **industrial application** (useful). Discoveries of nature, scientific theories, mathematical methods and pure abstract ideas are normally excluded.

- **Types (US):** utility patents, design patents (ornamental appearance) and plant patents.
- **Software patents:** patenting software is debated. In *Alice Corp. v. CLS Bank* (US Supreme Court, 2014) simply implementing an abstract idea on a computer was held not patentable. Europe excludes "programs for computers as such" but allows patents when there is a technical effect.
- **Prior art search** before filing prevents wasted cost. **Patent infringement** occurs when someone uses a patented invention without licence; remedies include injunctions and damages.
- **Patent trolls** (non-practising entities) buy patents only to sue or demand licence fees. **Cross-licensing** and **defensive patents** are used by big firms to avoid conflict.
- **Nepal:** the Patent, Design and Trademark Act, 2022 BS (1965) governs patents, designs and trademarks through the Department of Industry. The patent term is reported as 7 years, extendable up to 14 years, shorter than the TRIPS standard, and reform of the law has been discussed. Verify the current position.

Example 4.2: Can This Be Patented?

A team develops a new data-compression method for medical images that runs 10 times faster on special hardware. Another person has an idea for "selling goods online" without any technical detail. Which is more likely to get a patent?

Solution

The compression method is more likely: it is novel, non-obvious and gives a technical result. The "selling goods online" idea is an abstract business idea, likely rejected under the *Alice* reasoning (and lacking novelty).

4.4 Trade Secrets

A **trade secret** is confidential business information that gives a competitor advantage, such as formulas, source code, algorithms, customer lists, business plans, pricing or manufacturing processes (the Coca-Cola formula is the classic example). It is protected only as long as it remains secret; there is no registration and no fixed term.

Conditions: (1) the information is not generally known, (2) it has economic value because it is secret, and (3) the owner takes **reasonable steps** to keep it secret.

- **Protection methods:** non-disclosure agreements (NDAs), employment contracts with confidentiality clauses, limited access, marking documents confidential, security controls, exit interviews.
- **Non-compete agreements** restrict employees from joining rivals for a time; enforceability varies and they must be reasonable.
- **Legal remedies:** US Uniform Trade Secrets Act, Economic Espionage Act (1996), Defend Trade Secrets Act (2016). Misappropriation means acquiring secrets by improper means (theft, bribery, breach of duty).
- **Lawful acquisition:** independent discovery and **reverse engineering** of a product bought legitimately are generally not misappropriation.
- **Nepal:** no comprehensive stand-alone trade-secret statute is commonly cited; protection comes through contract law, ETA's confidentiality provisions and related laws. Verify current law.

Feature	Copyright	Patent	Trademark	Trade secret
Protects	Expression of ideas	Inventions	Brand identifiers	Confidential information

Feature	Copyright	Patent	Trademark	Trade secret
Registration	Automatic (optional)	Required	Usually required	None
Duration	Life + 50 yrs (Nepal)	About 20 yrs (TRIPS); shorter in Nepal (verify)	Renewable, potentially indefinite	As long as secret
Example	Software code, song	New drug, machine	Logo, name	Recipe, algorithm
Disclosure	Public work	Public in patent document	Public	Must NOT be disclosed

4.5 Intellectual Property Issues

Plagiarism

Plagiarism is presenting someone else's words, ideas or work as one's own without proper credit. It is an ethical (and sometimes legal) violation. Forms: copying text, paraphrasing without citation, self-plagiarism, buying essays, copying code. Detection tools (e.g., Turnitin) compare submissions with databases. **Prevention:** cite sources, use quotation marks, paraphrase properly, keep notes of sources, follow institution policy. Consequences: failure, expulsion, job loss, lawsuits if copyright is infringed.

Reverse Engineering

Reverse engineering is analysing a product or program to understand its design and functioning, often by decompiling software. Legitimate uses: interoperability, security analysis, recovering lost source code, competitor analysis. Legal concerns: licence agreements (EULAs) often prohibit it; DMCA restricts circumvention, though exceptions exist for interoperability and security research. In *Sega v. Accolade* (US, 1992) the court accepted reverse engineering to access unprotected functional elements as fair use.

Open-Source Code

Open-source software has source code that users may view, modify and share under a licence. It is still copyrighted; the licence sets the conditions.

Licence type	Examples	Key condition
Permissive	MIT, BSD, Apache 2.0	Can be reused even in closed-source products; keep copyright notice (Apache also has patent grant).

Licence type	Examples	Key condition
Strong copyleft	GNU GPL	Derivative works that are distributed must also be released under GPL.
Weak copyleft	LGPL, MPL	Changes to the library itself must be shared; linking from proprietary code is allowed.

Issues: licence compliance (mixing incompatible licences), security and support responsibility, and contributions by employees. Organisations use software composition analysis to track open-source use.

Competitive Intelligence

Competitive intelligence is the legal and ethical gathering and analysis of information about competitors, markets and customers (from public reports, websites, patents, trade shows, job ads). It becomes **industrial espionage** when it uses illegal or deceptive means such as theft, bribing employees, hacking, or misrepresenting one's identity. Ethical guidelines: identify yourself honestly, do not induce breach of confidentiality, do not use stolen documents.

Trademark Infringement

A **trademark** is a word, name, symbol, logo, sound or design that identifies the source of goods or services (marks: TM unregistered, ® registered). Infringement happens when another uses a mark that is identical or **confusingly similar** for similar goods, causing likelihood of confusion, or when a famous mark is **diluted** or tarnished. Nepal registers trademarks under the 2022 BS Act (initial term reported as 7 years, renewable). Remedies: injunctions, damages, seizure of counterfeit goods.

Cybersquatting

Cybersquatting is registering, trafficking in or using an Internet domain name identical or confusingly similar to another's trademark **in bad faith**, usually to sell it at a high price or to divert traffic. Variations: **typosquatting** (e.g., misspelled brand names) and name-jacking.

- **US law:** Anti-Cybersquatting Consumer Protection Act (ACPA, 1999).
- **UDRP** (Uniform Domain-Name Dispute-Resolution Policy) by ICANN, with WIPO as a major provider. The complainant must show: (1) the domain is identical or confusingly similar to its trademark, (2) the registrant has no rights or legitimate interests, and (3) the domain was registered and used in bad faith.
- **Remedy:** transfer or cancellation of the domain, and damages in court.

Example 4.3: Domain Name Dispute

A person registers *nepal-mango-juice.com* just after a well-known Nepali company "Mango Nepal" starts using the brand and offers to sell the domain to the company for a large sum. What claim does the company have?

Solution

This looks like **cybersquatting**. If the company holds a trademark, it may file a UDRP complaint proving confusing similarity, no legitimate interest and bad-faith registration (shown by the offer to sell for profit). Result: domain transferred. The outcome depends on the facts and any local rules for the specific domain extension.

4.6 Important Short Questions (Exam Practice)

- Define IP. Explain the different forms of intellectual property.
- What is copyright? What is not protected by copyright? Explain fair use.
- What are the conditions for patentability? Discuss software patents.
- What is a trade secret? How can it be protected?
- Write notes on plagiarism, reverse engineering and open-source licences.
- What is cybersquatting? Explain the UDRP.
- Differentiate between copyright, patent and trademark.

Key Takeaways

- ✓ IP gives creators time-limited exclusive rights to encourage innovation.
- ✓ Copyright protects expression (including software code), not ideas; term in Nepal is life + 50 years.
- ✓ Patents protect novel, non-obvious, useful inventions in exchange for disclosure.
- ✓ Trade secrets last as long as secrecy is kept; reverse engineering is generally lawful.
- ✓ Plagiarism, licence violations and espionage are key ethical IP issues.
- ✓ Open-source licences differ (permissive vs copyleft); compliance matters.
- ✓ Trademark infringement and cybersquatting are handled by courts and the UDRP.

— End of Unit 4 —