



Intellectual Property in Higher Education:

Guidelines for Students and Researchers



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1. What is intellectual property?

Intellectual property (IP) concerns creations of the mind. IP is any form of knowledge, expression or scientific or artistic endeavour that can be protected under law.

Intellectual property rights and laws

Intellectual property rights (IPR) give ideas their value, and grant creators or owners of a work certain control over its use. IP laws offer protection that can be used to prevent others from the unauthorized production, copying, use or sale of the IP. An IP owner can control and receive payment for its use.

Intellectual property can:

- have more than one owner
- belong to people or businesses
- be bought, licensed, sold, leased or shared

Types of protection

There are various forms of legal protection for IP. The type of protection depends on what you have created. Some are automatic while others you have to apply for.

Type of protection	
Automatic protection	
Copyright	Writing and literary works (incl. software), musical, dramatic and artistic works; films; sound recordings, broadcasts; databases; web content
(Unregistered) Design right	Appearance of a product including, shape, packaging, patterns, colours, decoration
Protection you have to apply for, i.e.	
Patents	Inventions e.g. machines, tools, substances, pharmaceutical products
Trade marks	Distinctive signs to indicate the commercial origin of products and services
Registered design	Appearance of a product including, shape, packaging, patterns, colours, decoration

The two main types of statutory protection that are most relevant to the University environment are patents and copyright.

What is IP and what is not IP

IP is something unique that you physically create. An idea alone is not IP. For example, an idea for a book doesn't count, but the words you've written do.

IP are inventions, artistic, dramatic, literary and musical works, industrial designs, know-how, written documents, results, software and names, symbols or images used in business...

Data, on its own, is not IP; it is neither a patentable invention nor an original work capable of copyright protection.

2. Patents

Patents protect inventions, developments that have utility and are novel and non-obvious when the patent application is filed.

What is protected by a patent?

For an invention to be patentable it must be:

- **New:** it cannot have been disclosed in conversation or publicly prior to the filing of the patent application, unless it was covered by a Confidentiality Agreement (CA). This may include presenting the subject or invention at a conference, publishing an article in a journal, or even discussing the concept with individuals not covered by a CA.
- **Inventive:** not an obvious advance on known technology.
- **Capable of industrial application:** it can be made or used.

Inventions include useful and new machines, articles of manufacture, and chemical compounds that are not obvious to a person skilled in the field of the invention. Many new inventions involve using known things, but to be worthy of a patent the invention must be more than just a simple adaptation or combination of existing products which would produce an obvious result. There has to be an inventive step over what is already known. This can be something very small, provided it is not an obvious thing to do or if, for example, it produces an unexpected advantage.

You cannot get a patent for the following: computer programs, literary, dramatic, musical or artistic work (these are protected by copyright); a way of doing business or performing a mental act; the presentation of information; a discovery, scientific theory or mathematical method; an animal or plant variety; a method of medical treatment or diagnosis.

Why are patents useful?

A patent grants to the patent owner the exclusive right to make, use or sell the invention for a limited period of time, after which the patent expires, and anyone is able to use the invention without the patent owner's permission. Patents are published, so everyone can see how the inventions work, and when the patents expire all are free to use the subject matter.

A patent also allows its owner to:

- Sell the exclusive rights
- License the invention to someone else
- Attract investment for their business

A patent does not give its owner a right to exploit their invention – it is possible to get a patent for something which is new and inventive, but which would infringe another patent if the owner exploited it.

How do I protect my work?

Patents, like the rest of IPRs, are territorial, only covering the territory where the patent is granted. It is also possible to protect your invention in many countries using regional or international systems, such as the European Patent or the World Intellectual Property Organisation's Patent Cooperation Treaty (PCT). The patent application process can be complex, and it is recommended that you seek advice from a qualified Patent Attorney or other IP professional, who will also be able to draft your application. The legal costs associated

with a patent application and renewal can be significant. Once you have a granted patent renewal fees must be paid to keep it in force.

Before a patent application is filed, there may be people you will need to discuss your invention with, such as the development team, an investor, an IP professional (such as a Patent Attorney). Before you discuss the details, all parties should sign a CA or 'Non-Disclosure Agreement' which can help protect the secrecy of your invention.

3. Copyright

Copyright is an IPR which protects creative works; the expression of ideas, rather than the ideas themselves.

What is protected by copyright?

Copyright protects any work which requires some effort to create. Everyone creates protected works all the time, from formal works such as essays, to more casual things like letters.

Examples include:

- **Literary works:** novels, poems, instruction manuals, computer software, song lyrics. Most research materials such as publications, spreadsheets, manuscripts, theses, conference papers, presentations or books are covered by copyright because they are considered to be literary works.
- **Musical works and sound recordings:** singing, music or sound recordings.
- **Dramatic works:** dance, mime, theatrical performance.
- **Artistic works:** sculpture, photography, painting, drawing, diagrams, maps, works of artistic craftsmanship.
- **Films:** recording on any medium which includes a moving image.
- **Broadcasts:** electronic transmissions of images, sound or other information to be received by members of the public.
- **Databases:** the content of a database; also, database rights may apply if there has been significant intellectual investment in the way the database is structured.

Copyright cannot protect a concept, idea or fact.

Why is copyright useful?

Copyright is intended to ensure that copyright holders have control over the use of their creations.

For those who want to use the work, copyright specifies the conditions and terms under which the creation may be legally copied, in whole or in part, or used for instruction, publishing, research, translation, broadcast, performance, adaptation, or display. This also means that copyright holders' can charge a fee for people to purchase or use their work.

Also, copyright itself can be transferred or sold to someone else.

How do I protect my work?

Copyright takes effect automatically and free of charge when the work is created, as long as the work is original and has been recorded in some way.

This is different from patent rights, which only arise after a patent application is granted by the competent authority.

Copyright is automatic but proving ownership of copyright could be difficult. To make it clear to others that you are aware of your rights, you could:

- Mark your copyright work with the © symbol, the name of the copyright owner and the year in which the work was created. For example, upon completion of the student's thesis, the thesis is considered to be copyright protected and the student becomes the copyright holder. The copyright symbol does not need to appear on the thesis for it to be legally protected; however, students should include the copyright symbol © beside their name and year of publication on the cover page of their thesis.
- Keep drafts and copies of the original work. You could send a copy to yourself or a reliable person (ie an IP professional) by special delivery post which gives a clear date stamp on the envelope, leaving the envelope unopened on its return. This would confirm that they received it on a particular date.
- Register the work in an official copyright registry. This is usually cheap, and provides at least a legal presumption of ownership.

Moral Rights

Moral rights attach to any copyrighted work and exist separate and apart from the economic or exploitation rights. There are differences across countries.

Although there are differences across countries, the basic moral rights serve to ensure that the author is credited as such (paternity right) and that no one distorts or modifies the work in a way that is prejudicial to the honour or reputation of the author/creator (integrity right).

The creator of an original work always has moral rights, even if the copyright has been assigned or sold to someone else. Moral rights cannot be sold or transferred, and are perpetual in many jurisdictions.

4. Trade marks

A trade mark is a sign that allows a business to identify its products and services to its customers.

What do trade marks protect?

Trade marks protect business source identifications, brands. You can register a word, a logo, phrase or a combination of all of these, among others.

How do I protect my work?

There are unregistered and registered trade marks, although usually trade mark rights are acquired by registration.

The legal requirements for registering a trade mark include capability to distinguish the goods or services: a trade mark must be distinctive, not merely descriptive of the products or services. A trade mark could be used in connection with a patent, copyright or know-how or trade secret.

Trade mark protection may extend perpetually if renewed and the owner has an exclusive right to stop others using the mark or something confusingly similar, so it can maintain its

competitive edge. Trade mark registrations can be sold or licensed, for example in a business franchise arrangement.

5. Trade secrets

Trade secrets protect valuable secret information like business information that must be kept confidential.

What is protected by a trade secret?

Trade secrets are not limited to a set term of protection. Broadly speaking, any confidential business information which provides an enterprise a competitive edge may be considered a trade secret. The subject matter of trade secrets is usually defined in broad terms.

They are two kinds of trade secrets: those that fulfil the patentability criteria and those that not. In the latter case, you will face a choice: to patent the invention or to keep it as a trade secret.

How do I protect my work?

Trade secrets are protected without registration or formal requirements with an official authority. There are, however, some conditions for a trade secret to be considered as such:

- 1) The information must be secret (ie confidential)
- 2) It must have commercial value because it is secret, and
- 3) It must have been subject to reasonable steps by the rightful holder of the information to keep it secret.

Trade secrets can be protected for an unlimited period of time, as long as the information remains secret, but cannot be enforced against anyone who independently discovers the secret. Like other IPRs, trade secrets are subject to the national laws of the country in which they are protected and most countries have laws that deal with the misappropriation or unauthorized acquisition of trade secrets.

6. Industrial Designs

Industrial designs refer to features of shape, configuration, pattern or ornamentations and any combination of those features within a finished article (how a product/article looks like).

How do I protect my work?

Depending on the applicable law, there may be two ways that you can protect your design: unregistered designs and registered designs.

1. **Unregistered designs** confer automatic protection and are free but. However, protection is limited, since the right holder can only act against copies (not independent creations) and you have to prove ownership.
2. **Registered designs** are examined and registered by an IPO. For your design to be registered must, in some jurisdictions:
 - a. Be novel – your design must not look the same as any design which has already been made publicly available.

- b. Have individual character, that is being different from other designs which are available to the public.

Any element of a design which looks the way it does to perform a particular technical function or to fit together to another product is not covered by industrial designs.

Industrial designs are territorial, like the rest of IPRs. In some countries, a design is called 'design patent'.

7. Who owns the rights to my work?

You own intellectual property if you:

- created it (and it meets the requirements for [copyright](#), [a patent](#) or [a design](#))
- bought IPRs from the creator or a previous owner
- have a brand that could be a [trade mark](#)

This is, however, not always the case, contingent upon other factors, such as sponsored research agreements, employment or University Governing Documents addressing IP. Your University should have an [Intellectual Property Policy \(IPP\)](#) which outlines the ownership of IP for research, teaching and students' materials. This IPP is different for staff and students, and varies in each institution.

For instance, when you make an invention while conducting research for the University, the University may own that invention if you (1) were employed by the University or (2) used University research funds, resources or facilities.

Staff

Most IP created in the course of, or incidental to, an employment automatically belongs to and is owned by the employer, unless there is an express agreement to the contrary. This is the case for patentable inventions, designs and creative works (including teaching or university materials) protected by copyright. With contract work, the opposite is usually true. The contracted worker keeps the IP in their work, unless otherwise specified by their contract.

In any case, the management of IP in employment at University will be stated in University IPPs, and set out in contracts, in the terms and conditions of employment. However, ownership may in part be determined by the terms and conditions of any external funding.

It is possible for the University to a) reverse this if the parties agree to it by contract, b) have a shared equity scheme or c) compensate its employees in other ways if their work is of particular benefit.

This contractual transfer of the IP only applies to work the employee is paid to carry out.

Students

Most universities have an IPP which determines ownership of the students' work. When you enrolled on your course you entered into a contract with your University, which included an agreement on the ownership of your work.

Some institutions retain ownership of all the IP created by their students, usually against compensation/benefits sharing. Other universities are more flexible in their approach and allow students to own any IP they create during the course of their studies.

However, keep in mind that, as a student, you may experience different agreements, such as studentship, fellowship, financial aid or research contracts. Some of them may include certain IP obligations you should check to make sure you own/are compensated for your IP.

8. How should I work to protect my ideas?

Most people believe they should care about IP, once the project or idea they are working at is already developed, for instance: you may wish to look for legal advice for a patent when your invention is fully developed. However, this may cause you some problems. It is extremely important to be careful, especially in the early stages of developing your idea. You must take precautions to keep your idea a secret, and record when, where and how you developed your idea. Here are some points to keep in mind.

1. *Know your employment obligations*

If you are already working at your University or somewhere else, you may have signed an IP agreement. This could mean that your employer owns the rights to your IP under certain conditions. Check your obligations related to assignment of IP and non-competition.

2. *Keep your employment and idea separate*

If you want to be sure to own your IP, do not use facilities, resources or funds from your University, institution or company to develop your project.

3. *Track your steps*

Track how you came up with the idea, what resources were used, and where the initial work was done. Keep good records that document your creative progress: keep draft copies of your innovations and date them. This can help you prove that you were the author.

4. *Protect your ideas from prying eyes*

Don't write your work on whiteboards or leave papers unattended in shared or public spaces. Don't plan or discuss on your innovation in areas which can be overlooked or overheard by others. Store your confidential documents securely.

5. *Do not disclose your idea publicly*

Do not talk or present your ideas in conferences, work meetings, papers nor formal or informal talks unless secured. Ensure all those you are working with are aware of what can be publicly disclosed.

6. *Do not disclose your idea online*

The internet is possibly the most influential and widely used business tool available today, but it can throw up many IP issues you need to be aware of.

Once the information is on the internet, it can quickly multiply and migrate to other websites, and it would be difficult for you to control where, when and how your information is published and to erase it.

Revealing your idea online may give your competitors an excellent approach to what you are doing, and they could make use of that information to work on a project similar to yours.

When uploading an image to a social media site, you may allow that site to use or own that image. Be sure to check the website's IP policy, as you could lose the rights to your work. Publishing your portfolio online may offer more visibility to your work but will also leave you more open to imitators.

7. Sign a Non-Disclosure Agreement (NDA)

To obtain finance based on your IP, you will have to disclose it to the investors. In this case, make use of Non-Disclosure Agreements. This is a legally binding written agreement which prevents others from disclosing your work/information to anyone else. Make sure that your NDA covers all that you need.

8. Think it twice before you go Crowdfunding

An NDA will not work for Crowdfunding as your appeal must go public. If your product could be patentable, you should not publicly disclose it until you have at least filed a patent application. Your idea may be stolen and brought to market by a competitor or prevent you from being granted patent protection.

9. Check if you are really covered

Remember that IPRs do not cover everything. So, going to an investor with ideas rather than an IP protected final product could be risky as there is nothing to stop them from doing it themselves (as well as that it does not make you look very serious).

10. Use more than one IP tool

An effective and efficient IP strategy may clarify the IP tools, which can be used individually and collectively to protect your ideas. This will give your work or business a competitive advantage.

9. What if others want to use my work?

If you own IPR, it grants you certain control over the work. The possibilities depend on the type of IPR. For instance, as a copyright owner, you could create terms and conditions that others must adhere to in order to make use of your work, or you could decide to charge a fee for exploiting it.

If you think your IP is being infringed in any way, you should seek legal advice. The first step will be to inform the other party. In many cases they are not aware they were infringing somebody else's IPR and can result in them stopping their activities. If this does not resolve the dispute, it may be necessary to initiate a court action or alternative dispute resolution mechanisms (eg mediation)

10. What if I want to use somebody else's work?

As an inventor, researcher, professor, professional or student, part of your tasks involves making sure that you are not infringing somebody else's IP. This maybe not as simple as it seems. Protected IP is often, but not always, marked as protected.

The ® symbol next to a logo, means that the logo is a registered trade mark, and permission is usually required for their use. For instance, as a student, you are not freely entitled to make use of University logos or slogans.

Patented inventions are registered and they have a document notifying of patent protection. You (and better your University's services) can search for patents and patent related information to find out if someone has already claimed the rights to an invention.

Copyright could be marked with the © symbol. However, as copyright arises automatically when an original work is 'fixed in a tangible medium of expression', you will not find this symbol always. If you want to incorporate copyrighted work into your work, for instance when writing your thesis, you need to be diligent, correctly citing author and source, or be granted permission of the copyright owner to use the material.

There are a number of exceptions to copyright that allow use of copyright works without permission, if the use is fair and proportionate. These include:

- Non-commercial research and private study
- Text and data mining for non commercial research
- Criticism, review and reporting of current events
- Teaching in educational establishments

If you are unable to locate the copyright owner, that would be called an 'orphan work'. Orphan works are creative works (or performances) that are protected by copyright but one or more of the copyright owners is either unknown or cannot be found. Many creative works are orphans, especially unpublished works. It may happen that you own a physical unpublished work you didn't create. You must be careful: owning the physical work does not mean to have IPR over it or that you can copy it. If you want to lawfully use the work, you must apply for an orphan work's licence.

You may also find material which the creator has marked as freely available for re-use. For example, they may have applied a Creative Commons licence or deposited in a data centre with an open access policy. Read the copyright statement carefully to check whether you can use the material. If in doubt, contact the creator. Also, you may find that copyright has expired for the information you need, making it available for use.

All University employees and students are expected to act in accordance with applicable codes of conduct and avoid plagiarism. So be careful and diligent.



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