Intellectual Property Law

What an Engineer or Computer Programmer Needs to Know

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What is Intellectual Property Law?

- Intellectual Property Law addresses who has the right to profit from creativity.

- It is of great importance for anyone involved in the inventive sciences.
There are several different types of IP, each with a specific, but overlapping, role:

- Patent Law → Protects inventions
- Copyright Law → Protects creative expression
- Trademark Law → Protects product identifiers
- Trade Secret Law → Protects confidential business information
How to Differentiate among the Systems

The Three Questions

- What does the system give me if I use it?
- What do I need to do to qualify for the system?
- How do I use the system?
If you obtain a patent, no one else can make, use or sell the invention for 20 years after you apply for the patent.

- If somebody does, you may be able to stop them in their tracks (injunction) or will be awarded royalties.
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After the 20-year period, anyone can make, use or sell the invention.

It becomes illegal for you to collect royalties.
Your invention must be

- **New** → It cannot be something that has already been invented
- **Useful** → If you want to claim cold fusion, you have to be able to make it work!
- **Thing or process** → It can be a new widget or it can be a new way to make widgets

If your invention is based on earlier inventions, your innovation must be a **nonobvious** extension of what came before
The Supreme Court has never understood computer software. It has routinely confused the process being achieved by the computer with the algorithm(s) used to accomplish it. Consequently, obtaining patents directly on computer software is challenging.
You must file an application with the PTO that

- **Specifies** → Fully describes how your invention works so that someone else can make it

- **Claims** → Defines exactly what it is that you have invented

The PTO will assign an examiner to study your application and make sure that you meet the qualifications

This will cost a lot of money!
Copyright Law

What You Get

➤ The right, subject to some exceptions, to reproduce, distribute and make new versions of your work

➤ This right lasts for the lifetime of the author plus 70 years!

➤ If society needs to use your work for such things as teaching, news reporting, etc., your rights are curtailed under the fair use doctrine
Copyright Law

What Qualifies

➤ Any expressive work that
  ➤ Has some creative aspect to it
  ➤ Is “fixed” in something tangible so that it can be perceived or reproduced
Copyright Law

How You Get One

- You fix the work
- Copyright protection is automatic—no application is necessary
  - There is a way to register your claim with the copyright office, however, which can gain you advantages if anyone ever misappropriates your work
  - Filing is very inexpensive and can often be done without needing a lawyer
System Three: Trademarks
Trademark Law

What You Get

- The right to keep others from using your mark in a way that is likely to confuse typical consumers of the product
  - **Trademarks** are used to identify who made the particular product
  - **Service marks** are used to identify who is offering the particular service
Trademark Law

What Qualifies

➤ Anything that can communicate product identification can be used as a trademark

➤ Color, for example, has been used (pink insulation)
Trademark Law

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How You Get One

➤ Use it in commerce to identify your product
  ➤ This will gain you a state or common law trademark that is only valid in the states where you have actually distributed your product
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➤ Use it in interstate commerce and apply to the PTO to register the mark
  ➤ Once registered, you can use the mark throughout the U.S.
    ➤ Indicated with a ® symbol
System Four: Trade Secrets
The right to prevent others from using your secret, but only if they commit some type of wrong to get it

- The wrong can be theft, bribery, etc.

Trade secrets can always be reverse engineered by someone who obtains the secret without committing a wrong

- If this happens, the trade secret is no longer protected!
Trade Secret Law

What Qualifies

- Any business information that
  - Has economic value
  - Is not generally known
  - Has its secrecy protected in a reasonable way
Trade Secret Law
How You Get One

➤ Just keep the business information secret!
Which One Should You Use?

- Sometimes, all of them!
- **Software**
  - Patent law can protect a novel algorithm (although you have to work at it)
  - Copyright law can protect the actual code
  - Trademark law can protect the name of the program
  - Trade secret law can protect the whole ball of wax (but not easily for widely distributed programs)
When to Get a IP Lawyer

- You have come up with something that makes your heart go pitter-patter
- You have come up with something ho-hum, but is likely to be a commercial success
- You like to spend money
Shop-Rights and Other Horrors

- If you work for a big company, you will most likely have to transfer IP rights to the company.
- Before you engage in an expensive, independent development effort, make sure that your employer isn’t going to own the product.
Questions?