Course: Professional Issues in IT

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Intellectual Property Rights

If someone steals your bicycle, you no longer have it. If someone takes away a computer belonging to a company, the company no longer has it.
If you invent a drug that will cure all known illnesses and leave the formula on your desk, someone can come along, read the formula, remember it, and go away and make a fortune out of manufacturing the drug. But you still have the formula even though the other person now has it as well. This shows that the formula – more generally, any piece of information – is not property in the same way that a bicycle is.

Intellectual property

Property such as bicycles or computers is called tangible property, that is, property that can be touched. It is protected by laws relating to theft and damage.

Property that is intangible is known as *intellectual property*. It is governed by a different set of laws, concerned with *intellectual property rights*, that is, rights to use, copy, or reveal information about intellectual property.

Laws

The international law relating to trade marks and patents is based on the Paris Convention, which was signed in 1883. The Berne Convention, which lies at the basis of international copyright law, was signed in 1886.

DIFFERENT TYPES OF INTELLECTUAL PROPERTY RIGHTS

- *Copyright* is, as the name suggests, concerned with the right to copy something. It may be a written document, a picture or photograph, a piece of music, a recording, or many other things, including a computer program.
- *Patents* are primarily intended to protect inventions, by giving inventors a monopoly on exploiting their inventions for a certain period.
- *Confidential information* is information that a person receives in circumstances that make it clear they must not pass it on.
- *Trade marks* identify the product of a particular manufacturer or supplier.

COPYRIGHT

- Copyright is associated primarily with the right to copy something. The ‘something’ is known as the work.
- Only certain types of work are protected by copyright law. The types that concern us here are ‘original literary, dramatic, musical or artistic’ works. The 1988 Copyright Design and Patents Act states that the term ‘literary work’ includes a table or compilation, a computer program, preparatory design material for a computer program and certain databases.

Copyright comes into existence when the work is written down or recorded in some other way. It is not necessary to register it in any way.

The rights of the copyright owner

Copyright law gives the owner of the copyright certain exclusive rights. The rights that are relevant to software and, more generally, to written documents, are the following:

- The right to make copies of the work: Making a copy of a work includes copying code from a disc into RAM (random access memory) in order to execute the code. It also includes downloading a page from the web to view on your computer, whether or not you then store the page on your local disk.
- The right to issue copies of the work to the public, whether or not they are charged for it.
- The right to adapt the work: This includes translating it – whether from English to Chinese or from C to Java.

What you can do to a copyright work

The law specifically permits certain actions in relation to a copyright work and some of these are of particular relevance to software.

- First, it is explicitly stated that it is not an infringement of copyright to make a backup of a program that you are authorized to use. However, only one such copy is allowed. If the program is stored in a filing system with a sophisticated backup system, multiple backup copies are likely to come into existence.
- Secondly, you can ‘decompile’ a program in order to correct errors in it. You can also decompile a program in order to obtain the information you need to write a program that will ‘interoperate’ with it, provided this information is not available to you in any other way.
- Thirdly, you can sell your right to use a program in much the same way that you can sell a book you own. However, when you do this, you sell all your rights. In particular, you must not retain a copy of the program.

Databases

Copyright subsists in a database if ‘its contents constitute the author’s own intellectual creation’. There are many databases that do not satisfy this criterion but which, nonetheless, require a lot of effort and a lot of money to prepare. Examples might include databases of hotels, pop songs, or geographic data. In order to encourage the production of such modest but useful databases, regulations were introduced in 1997 to create a special intellectual property right called the database right.

The database right subsists in a database ‘if there has been substantial investment in obtaining, verifying or presenting the contents of the database’.

- It lasts for 15 years and prevents anyone from extracting or reusing all, or a substantial part of, the database without the owner’s permission.

Copyright infringement

Anyone who, without permission, does one of the things that are the exclusive right of the copyright owner is said to infringe the copyright.

- Primary infringement takes place whenever any of the exclusive rights of the copyright owner is breached.
- Secondary infringement occurs when primary infringement occurs in a business or commercial context. Can lead to heavy fine and even imprisonment. It involves piracy of software for trading or business usage.

Ownership

- As a general rule, the copyright in a work belongs initially to its author. If the work is jointly written by several authors, they jointly own the copyright.
- If the author is an employee and has written the work as part of his or her job, then the copyright belongs to the employer, unless there is an explicit, written agreement to the contrary.
- The employer owns the copyright only if the author is legally an employee. If the author is an independent contractor, he or she will own the copyright unless there is an agreement to the contrary. For this reason, if a company commissions an independent contractor (freelance programmer) to write software, it is important to have a formal agreement regarding ownership of the copyright in the resulting software.

Licensing

It is very common for the owner of the copyright in a piece of software to license other people or organizations to carry out some of the activities that are otherwise the exclusive right of the copyright owner. The copyright remains the property of the owner, but the *licensees* (the people to whom the software is licensed) acquire certain rights.

PATENTS

A patent is a temporary right, granted by the state, enabling an inventor to prevent other people from exploiting his invention without his permission.

- Unlike copyright, it does not come into existence automatically; the inventor must apply for the patent to be granted. However, the protection it gives is much stronger than copyright, because the grant of a patent allows the person owning it (the *patentee*) to prevent anyone else from exploiting the invention, even if they have discovered it for themselves.

Patents need

- Patents were originally intended to encourage new inventions, and in particular to encourage the disclosure of those new inventions.
- Inventors are often hesitant to reveal the details of their invention, for fear that someone else might copy it. A government-granted temporary monopoly on the commercial use of their invention provides a remedy for this fear, and so acts as an incentive to disclose the details of the invention. After the monopoly period expires, everyone else is free to practice the invention. And because of the disclosure made by the inventor, it is very easy to do so.

What can be patented?

In Europe, the law relating to patents is based on the European Patent Convention. This was signed in 1973 by 27 European countries, and came into force in 1978. The UK's obligations under the Convention were implemented in the Patents Act 1977, although there have been some subsequent modifications. The 1977 Act states that an invention can only be patented if it:

- is new;
- involves an inventive step;
- is capable of industrial application;
- is not in an area specifically excluded.

Similar criteria apply in all the countries that are signatories to the Convention.

What Patent Act Excludes……

Following the European Patent Convention, the Patents Act 1977 excludes the following:

- Scientific theories: The theory of gravity cannot be patented although a machine that uses it in a novel way could be.
- Mathematical methods: This means, for example, that the methods used for carrying out floating point arithmetic cannot be patented. A machine that uses the ideas can however be patented.
- A literary, dramatic, musical or artistic work or any other aesthetic creation: As we have already seen, these are protected by copyright.
- The presentation of information: Again this is covered by the law of copyright.
- A scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer.

Obtaining a patent

Unlike copyright, which comes into existence automatically when the protected work is recorded, whether in writing or otherwise, a patent must be explicitly applied for. Applying for a patent can be an expensive and time consuming business.

Patents are granted by national patent offices. Inventors who want protection in several different countries must, in principle, apply separately to the patent offices of each country.

Enforcing a patent

The grant of a patent is not a guarantee that it can be effectively enforced. If you own a patent and you find that someone is infringing the patent, you may have to go to the courts to enforce your rights.

The problem is that enforcing a patent that you own or challenging a patent held by someone else is a time-consuming and expensive process.

Software patents

In the USA software can be patented if:

- it is part of a product that is itself eligible to be patented;
- it controls a process that has some physical effect;
- it processes data that arises from the physical world.

The European Patent Office has been granting patents for software since 1998, as has the UK Patent Office.

Patent offices in the different European countries have adopted different policies towards the patenting of software, with the result that there is much confusion about what is and what is not patentable.

The result is that there is a conflict between the law and practice, a very undesirable situation.

http://www.legislation.gov.uk/ukpga/1988/48/resources

On the one hand, it is illogical and unfair that something that would be clearly patentable if implemented completely in hardware should not be patentable if implemented in software. Furthermore, patents encourage investment because:

- a patent is a well-defined asset that allows shareholders and, in particular,
- venture capitalists to be confident that their investment is producing something of value;
- patents ensure that the benefit of research and development accrues to the people who financed it.

CONFIDENTIAL INFORMATION

TRADE MARKS AND PASSING OFF

The law regarding trade marks in the UK is based on the Trade Marks Act 1994, which consolidated and updated existing legislation. The Act defines a trade mark as:

. . . any sign capable of being represented graphically which is capable of distinguishing goods or services of one undertaking from those of other undertakings. A trade mark may, in particular, consist of words (including personal names), designs, letters, numerals or the shape of goods or their packaging.

Even where a trade mark is not registered, action can be taken in the civil courts against products that imitate the appearance or ‘get up’ of an existing product. This is known as the tort of ‘passing off’.

Trade mark

There are comprehensive rules limiting what can be registered as a trade mark. Place names and the names of people, for example, will not generally be accepted for registration.

The1994 Act makes it an offence to:

- apply an unauthorized registered trade mark (that is, a registered trade mark that you do not own or do not have the owner's permission to use) to goods;
- sell or offer for sale (or hire), goods or packaging that bear an unauthorized trade mark;
- import or export goods that bear an unauthorized trade mark;
- have in the course of business, goods for sale or hire goods (or packaging) that bear an unauthorized trade mark.

Domain Names

Internet domain names are ultimately managed by the Internet Corporation for Assigned Names and Numbers (ICANN). ICANN is an internationally organized, non-profit making corporation. Its main responsibility is ensuring the ‘universal resolvability’ of internet addresses; that is, ensuring that the same domain name will always lead to the same internet location wherever it is used from and whatever the circumstances. In practice, ICANN delegates the responsibility for assigning individual domain names to other bodies, subject to strict rules.

Domain names were originally meant to be used just as a means of simplifying the process of connecting one computer to another over the internet.

However, because they are easy to remember, they have come to be used as away of identifying businesses. Indeed, they are frequently used in advertising.

Conversely, it is not surprising that companies should want to use their trade marks or their company names as their internet domain names.

- The potential for conflict between trade marks and domain names is inherent in the two systems.
- Trade marks are registered with public authorities on a national or regional basis. The owner of the trade mark acquires rights over the use of the trade mark in a specific country or region.
- Identical trade marks may be owned by different persons in respect of different categories of product.
- Domain names are usually allocated by a nongovernmental organization and are globally unique; they are normally allocated on a first come, first served basis. This means that if different companies own identical trade marks for different categories of product or for different geographical areas, only one of them can have the trade mark as domain name, and that will be the first to apply.

Cyber squatting

The inconsistencies between the two different systems of registration has made it possible for people to register, as their own domain names, trade marks belonging to other companies. This is sometimes known as cyber squatting. They then offer to sell these domain names to the owner of the trade mark at an inflated price. It is usually cheaper and quicker for the trade mark owner to pay up than to pursue legal remedies, even when these are available.

WIPO report I

In 1999, the WIPO published a report entitled ‘The management of internet names and addresses: Intellectual property issues’. WIPO is an international organization with 177 states as members. The report recommended that ICANN adopt a policy called the Uniform Domain Name Dispute Resolution Policy (UDRP), which includes specific provisions against cyber squatting. This policy has proved reasonably effective. Within two years, over 3,000 complaints had been dealt with by one of the arbitration centres alone, with 80 per cent being resolved.

WIPO report II

In 2001, WIPO published a second report, ‘The recognition of rights and the use of names in the internet domain system’. This addresses conflicts between domain names and identifiers other than trade marks.

Examples:

The use of personal names in domain names or the use of the names of particular peoples or geographic areas by organizations that have no connection with them. These conflicts are more difficult to deal with than conflicts between trade marks and domain names because the international framework that underlies trade marks is missing in these other cases.

Self quiz

http://www.ip.iitkgp.ernet.in/rgsoipl/modules/module1/submodule2/mcq.php

http://www.ip.iitkgp.ernet.in/rgsoipl/modules/module1/submodule2/tf.php