

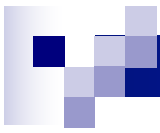
Select intellectual property law issues for computer science students

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Overview

- Focus on copyright:
 - protection for software
 - risks of copyright infringement
- Other IP issues for protection and infringement:
 - Patents
 - Designs
 - Breach of confidence
 - Misleading conduct



AN INTRODUCTION TO COPYRIGHT



Conditions for copyright protection - overview

- Automatic – no registration required
- Connecting factor to Australia or reciprocal protection
- Reduced to material form
- Original
- Expression, not idea, is protected
- Must be a ‘work’ or a ‘subject matter other than work’

Connecting factor




- Protection under the Act requires a factor connecting the subject matter to Australia.
- connecting factors hinge upon:
 - the author being a '**qualified person**' when the work was created (An Australian protected person or a resident), or
 - '**publication**' taking place within Australia (work offered to Australian public).



International reciprocal rights

- The Copyright Act extends to works which have a primary connecting factor to another country which is:
 - a party to the Berne Convention for the Protection of Literary and Artistic Works;
 - a member of the World Trade Organisation; or
 - a party to the World Copyright Convention
- So, eg, an American can sue in Australia for infringement of their American copyright work (Oz law applies)



Material form requirement for literary, dramatic, musical and artistic ‘works’

- No copyright in a mere idea
- An idea becomes a ‘work’ and thus is protectable under the Act when it is reduced to a ‘material form’: s 22



Definition of 'material form'

'material form, in relation to a work or an adaptation of a work, includes any form (whether visible or not) of storage of the work or adaptation, or a substantial part of the work or adaptation, (whether or not the work or adaptation, or a substantial part of the work or adaptation, can be reproduced).'



Originality

- a work must be original: s 32
 - 1) must originate with the author (not copied)
 - 2) author must exercise “independent intellectual effort” which is directed to a work: *IceTV Pty Ltd v Nine Network Australia Pty Ltd* 239 CLR 458, 474 at [33], 479 at [48]; 494 at [99].
- Mere labour (‘sweat of the brow’) insufficient
- Can be controversial with respect to:
 - compilations of pre-existing material arranged in an ordinary way;
 - computer-generated works (including computer-generated software)



Range of subject matter protected

■ Works (Part III)

- Literary (and adaptations)
- Dramatic (and adaptations)
- Musical (and adaptations)
- Artistic (not adaptations)

■ Subject matter other than works (Part IV)

- Sound recordings
- Films ('cinematograph films')
- Broadcasts
- Published editions
- (performances)



Literary works defined

- S 10(1): ‘literary work’ includes :
 - ‘a table, or compilation, expressed in words, figures or symbols’,
 - **computer programs**; or
 - **A compilation of computer programs**
- Section 10(1): ‘**computer program** means a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result’
 - includes desktop applications, software used in apps and web-based applications.



Compilations

- These may be compilations of facts; of original or unoriginal material, or a mixture
- May be a compilation of **computer programs**
- The *compilation* effort is protected: arrangement and/or selection
- require a sufficient degree of skill and effort in the arrangement, selection of the compiled elements
- Compilations of facts: copyright is ‘thin’ because the facts are not protected, only the arrangement or selection of them
- *Telstra Corporation Limited v Phone Directories Company Pty Ltd* (2010) 264 ALR 617 and *IceTV Pty Ltd v Nine Network Australia Pty Ltd* 239 CLR 458 - mere work, money, time, expense, decision-making insufficient if not ‘directed to the expression of the work’ and if no independent intellectual effort



Other works

- **Artistic (see definition s 10)**

Photographs, paintings, drawings, engravings, sculptures, works of artistic craftsmanship

Arguable that plans for computer hardware may be a 'drawing', or the computer hardware itself may be a 'sculpture' BUT if commercially sold or registered as a design copyright will be lost

- **Dramatic (see definition s 10)**

Egs: plays, film scripts and scenarios

- **Musical (not defined)**

Egs: musical scores, sounds



Adaptations

- s 10(1) 'adaptation' (only) means:
 - a translation of a literary work (ie French to German);
 - a pictorial representation of a literary work (eg novel to cartoon);
 - a dramatic version of a non-dramatic literary work (ie novel to play)
 - a non-dramatic version of a dramatic literary work (ie play to novel)
 - **A version of a computer program not being a reproduction**
 - An arrangement or transcription of a musical work



Subject matter other than works

Most important:

- Sound recordings
- Films (includes videos; interactive multi-media)

Also:

- Television broadcasts
- Published editions



Material associated with software

- may be separately protected:
 - (non code) literary text
 - Databases ?
 - visual art (including charts, maps and plans),
 - video (such as instructional videos, commercials and computer video games),
 - music and sound recordings.




Rights: **literary**, dramatic or musical works: s 31(1)

- reproduce the work in material form
- publish the work (for *first time*: *Avel v Multicoïn* (1990) CLR 88)
- perform the work in public
- communicate the work to the public
- make an adaptation
- do any of the above re an adaptation
- (other than a computer program) enter into commercial rental arrangement in respect of a literary, dramatic or musical work reproduced in a sound recording
- For computer programs, enter into commercial rental arrangement in respect of the program



The communication right

- S. 10(1) – ‘communicate’ means make available online or electronically transmit a work to the public.
- ‘Public’ means public within ***or outside*** Australia.



Exclusive rights: subject matter other than 'works'

- subject matter (films, sound recordings, broadcasts, published editions) has narrower protection than works
- In summary:
 - copying
 - communicating to the public
 - causing to be seen/heard in public
 - commercial rental rights (sound recordings only)



Technological protection measures

- 'Technological Protection Measure' is defined as:
 - 'Access Control Technological Protection Measure' - prevents unauthorised **access** to material through use of, eg, passwords and/or encryption; and
 - Any technology that prevents unauthorised **copying**.
- commercial dealings in circumvention devices prohibited



Ownership of copyright

- General rule, author is owner: s 35(2)
- Major exception: employment relationship (employer owns) or contract
- Author is the person reducing the idea to material form, rather than the person with the idea
- Joint authorship and ownership possible, but:
 - requires **collaboration** of authors where contributions are **inseparable**
 - All authors own together and cannot exercise rights without other authors' consent
 - Keep records of who does what!
- Subject matter other than works: the 'maker' owns (unless commissioned)



Duration of protection

- Works – life of the author + 70 years.
- Subject matter other than works:
 - Sound recordings, films, TV and sound broadcasts, generally 70 years after first publication (or broadcast)



Assigning/licensing copyright

- Valuable property right capable of being:
 - sold (must be assigned in writing) or
 - **Licensed** (exclusive licenses must be in writing)
- The right - not the physical object - is the property protected (sale of physical object does not constitute sale of copyright)



Copyright infringement

- Copyright is infringed when another does in relation to a copyright work:
 - something which the owner has the exclusive right to do;
 - without the owner's permission; and
 - where no defence or exception to infringement applies: ss 36(1), 101(1); **or**
 - deals with a '**substantial part**' of the copyright work in any of these ways; **or**
 - **authorises** the doing of any such act: s36(1) (see later)



‘A substantial part’

- Infringement occurs if a person exercises an exclusive right in relation to a ‘substantial part’ of copyright material
- qualitative rather than quantitative assessment
- Consider *importance* of the part relative to the whole
 - Problematic with software because *every* part is ‘important’
- Consider *originality* of the part that is taken



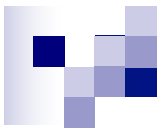
idea/expression dichotomy

- Only if *expression* is taken is there infringement
 - Thus the **idea** behind software can be replicated, but not the particular way in which that idea is expressed
 - Likewise, the **function** performed by software cannot be monopolised
 - graphical user interface (GUI) and ‘look and feel’ probably unprotectable as ‘ideas’
 - To protect ideas or function, need to rely on **patents** or keeping the code **confidential**



Authorisation of infringement

- **Authorising** the doing in Australia of any act which is the exclusive right of the copyright owner, without the owner's consent, is a **direct** infringement: Section 36(1)
 - Eg Bill instructs employees to copy software outside licence terms – Bill authorises employees' infringing acts



Defences to copyright Infringement



Consent

- consent may be:
 - express (eg licence terms, open source, creative commons) or
 - implied (eg – ‘click here to download this software’)



Fair dealing

Various "fair dealing" defences (most of little relevance to the average business):

- research or study (ss 40, 103C, 112);
- criticism or review (ss 41, 103A, 112);
- parody or satire (ss 41A; 103AA)
- reporting use (ss 42, 103B, 112); and
- obtaining professional legal advice (ss 43, 104, 112).



Computer Program Exceptions

- **s 47B Reproduction for normal use/study of a computer program**

Ensures that computer programs can be used in their normal capacity. It also facilitates competition and growth in the computer software industry.

- **s 47D Reproduction for making interoperable products**

Introduced for the purpose of maintaining the international competitiveness of Australia's software developers.

- **s 47E Reproduction for correcting errors**

Introduced to ensure that software users could promptly repair malfunctions in vital operating systems.

- **s 47F Reproduction for security testing**

Security testing is seen as a legitimate activity.

Patents

- Different law to copyright
- Must be a novel manufacture or process
- 20 years exclusive economic rights
- Country by country

Patents – an overview

- *Patents Act 1990* (Cth)
- Provides protection for ‘inventions’
- Expansion in patentable subject matter – now includes software - but considerable resistance to, e.g., business method patents (which may involve software), gene patenting
- Novelty and Inventive Step

Statutory criteria for validity (Standard patent)

Section 18(1) - **standard patent**:

- (a) is a **manner of manufacture** within the meaning of section 6 of the Statute of Monopolies; and
- (b) when compared with the prior art base as it existed before the priority date of that claim:
 - (i) is **novel**; and
 - (ii) involves an **inventive** step; and
- (c) is **useful**; and
- (d) was **not secretly used** in the patent area before the priority date of that claim by, or on behalf of, or with the authority of, the patentee or nominated person or the patentee's or nominated person's predecessor in title to the invention.

The *NRDC* case (1959)

- The High Court:
- “manner of manufacture” means there should be some industrial or commercial or trading character about the process. What is patentable is the application of ingenuity to produce an identifiable effect in the field of economic endeavour.
- POST NRDC: anything may be proper subject matter for a patent if it is ‘an **artificially created state of affairs**’ **providing economic utility**.
- Theoretically includes software and hardware – methods and products

Patentability of software

- the software invention has to have a 'physical effect in the sense of a concrete effect or phenomenon or manifestation'.
- Probably needs to involve steps which are 'foreign to the normal use of computers'.
- Examples:
 - > computer processing apparatus for assembling text in Chinese language characters using a non-Chinese keyboard (*CCOM v Jiejing* 28 IPR 481)
 - > production of an improved curve image by computer (*International Business Machines Corporation v Commissioner of Patents* (1991) 33 FCR 218)

Novelty

- Section 18(1) - standard patent must be 'novel'
- The novelty of a patent **claim** is assessed against the 'prior art base' before the application.
- Prior art (base): information already available **anywhere in the world**, either in documentary form or through the doing of an act.
- **entire** invention must be disclosed in **one** place
- Is there is a significant **difference** between the prior art and the alleged invention?

Inventiveness (inventive step)

Standard patent:

- Must 'involve an inventive step' (s18(1)(b)(ii))
- S 7(2) provides that an invention is taken to involve an inventive step if the invention is **NOT obvious** to a person **skilled in the relevant art** in the light of 'common general knowledge' as it existed [throughout the world] before the priority date of the relevant claim.

Obvious

- The Australian High Court's view on the word 'obvious': means 'plain' or 'very plain'. It is NOT obvious if a skilled person, after conducting research, finds the elements that make up the patent in question. *Lockwood Security Products Pty Ltd v Doric Products Pty Ltd (No 2)* (2007) 235 CLR 173
- Given the danger posed by hindsight, in patent law, only a small amount of inventiveness – or a small inventive step – is required to be shown. A 'scintilla of invention' - *Samuel Parks & Co Ltd v Cocker Bros Ltd* (1929) 46 RPC 241

who can own a patent? Inventors

S15 'a patent for an invention may only be granted to a person who:

- (a) is the **inventor**; or
- (b) would ...be entitled to have the patent assigned to the person; or
- (c) derives title to the invention from the inventor or a person mentioned in paragraph (b); or
- (d) is the legal representative of a deceased person mentioned in paragraph (a), (b) or (c).

Who is an inventor?

- *The Statute of Monopolies* - the 'true and first inventor': actual inventor + first introducer.
- person responsible for the inventive concept

Employee inventions

- *The Act 1990* has **NO** express provisions dealing with employee inventions.
- An employer's patent rights are justified by general common law principles and the equitable principles governing the employment relationship.
- There may be an express clause in employment contract; an implied duty to assign



DESIGNS

- The visual appearance of products may be protected under *Australian Designs Act*
- Not a means of protecting function
- Could protect appearance of computer hardware
- Max 16 years protection
- Must not be substantially similar in overall appearance to existing products

The action for breach of confidence

43

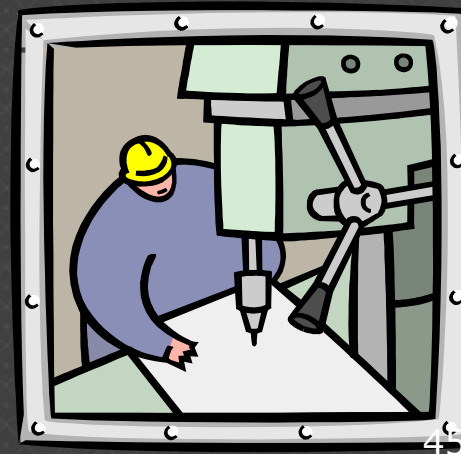
An overview

Coco v Clark: 3 essential criteria

- ▶ In *Coco v Clark*, Megarry J set out the three elements that must be proved in order to succeed in an action for breach of confidence:
 - The information must be genuinely confidential or secret;
 - The information must have been obtained in circumstances which “important an obligation of confidence”; and
 - The defendant must have made an unauthorised use or disclosure of the information causing detriment to the plaintiff (or there is a real likelihood that the defendant will do so).

3 situations to consider:

- Position whilst still an employee;
- Position under contractual restraints even after employment has ceased; and
- Position after employment has ceased where no contractual restraints exist



While an employee: duty of good faith

- Employees owe a general duty of good faith during the currency of the employment relationship: *Hivac Ltd v Park Royal Scientific Instruments* at 3.19C
- Duty of good faith would preclude employees doing anything detrimental to employer's interests, including:
 - > Soliciting clients
 - > Disclosing or using confidential information

Ex-employees and objective knowledge

- Some employee obligations survive the employment relationship: cannot divulge or use trade secrets ('objective knowledge')
- The critical issue: how does one distinguish between employee know-how and 'objective knowledge' - information which is the employer's property?

Ex-employees and subjective knowledge

- > Cannot exploit 'know-how', but only if the employee is subject to a (valid) restraint of trade condition in the employment contract

Restraint of trade clauses

- valid and enforceable only if not contrary to the public interest and is no wider than is reasonably necessary (judged in terms of the scope of the business activities to which it relates, its duration and the geographic area to which the restraint applies) to protect the legitimate business interests of the ex-employer.

No restraint of trade clause

- categories of information an employee may learn:
 - > 1: trivial and easily accessible from public sources;
 - > 2: not public knowledge and which is confidential but which, once learnt, necessarily remains in the employee's head and becomes an inseparable part of her own skill and knowledge;
 - > 3: Specific trade secrets learnt by heart which cannot be used (or disclosed to others) since they are so obviously trade secrets and thus confidential.
 - > in the absence of a valid restraint of trade clause an ex-employer can only stop a former employee using or disclosing the third kind of information



MISLEADING CONDUCT

- Finally, be sure that whatever you say about your hardware or software is true!
- Misleading representations about the capacity, features, nature, etc of hardware or software may be challenged under the Australian Consumer Law (s18) and possibly under contract law.