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Intellectual Property and the Digital Age

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Outline

- IP Basics
  - what is IP? / IP ownership / protecting IP

- Copyright
  - basics – infringement / permitted acts
  - IT / computer programs / internet

- IP in Practice – Open Source Software licensing

- Patenting and computer programs
  - basics – requirements/monopoly right
  - patents & computer programs
  - UK/ Europe /US
- IP in Practice – Creative Uses of IP in the digital age

What is IP?

- IP = Intellectual Property
- IP is the result of creativity activity and / or innovation arising from use of human intellect
- Distinct from physical property as it is intangible
- IP is protected by Intellectual Property Rights – IPR
- Two main groups of IPRs – IPRs that permit / restrict a third parties rights to use your IP (copyright & related rights) and IPRs that give a monopoly right (patents, trade marks)
- Know-how

Ownership of IP

- The creator of IP and the owner of IP are not necessarily the same

- Employers usually own their employees' IP

- Ownership position can be varied by contract

- IP can be jointly owned by a number of creators

- Ownership transfer (assignation) must be in writing

Students and IP

- As a general rule IP generated by a student during his or her studies is owned by the student

- **BUT**:
    - policy of each HEI differs
    - commercially sponsored studentships
    - contribution of HEI employees to IP
    - some students are also employed researchers

Rights to Protect IP

- Copyright ©
  - applies to original literary, dramatic and musical works incl. software and computer generated works
- Patenting
  - limited application to software
- Database right
- Others
  - trade marks (TM v ®), domain names, design rights, know-how, semiconductor topography rights
- Ideas
  - no automatic protection for ideas *per se*

Copyright

- What is copyright?

- Copyright in more detail

- Copyright and Information Technology

What is copyright?

- Copyright is an Intellectual Property Right

- Copyright comes into existence with the work - no need for registration

- Subject matter includes literary, dramatic, musical and artistic works (LDMA) but not ideas *per se*

- Literary Works include computer programs and compilations

Copyright in more detail

- Who owns the copyright?
    - Author/Employee/Publisher
    - Not always straightforward

- Duration of Protection
    - Lifetime of author plus 70 years for LDMA

- Infringing Acts

- Defences

Infringing Acts

- Copying the work
  - reproduction in any form including in an electronic medium and transient reproduction

- Issuing copies of the work to the public

- Rental / lending the work to the public

- Performing the work in public

- Communicating the work

- Adapting the work

Defences

- Sometimes described as "permitted acts"

- Educational Copying (limited)

- Decompilation of Computer Programs

- Fair Dealing
  - Non-commercial purpose (previously research);
  - Private study;
  - Criticism/review;
  - Reporting current events

Copyright and Information Technology

- Copyright and Computer Programs

- Copyright and the Internet

- Copyright and Databases

- Database Rights

Copyright and Computer Programs

- Copyright protection extended to computer programs in 1992

- Protection for lifetime of Author plus 70 years

- What will infringe the copyright in a computer program

  - the copying of a "substantial part"
  - qualitative not quantitative test

- Lawful use of copyright protected computer programs

  - Making back up copies
  - De-compiling a computer program to create independent, inoperable non-compiling program
  - Adapting for lawful use i.e. correcting errors
  - Observe, study or test to determine underlying ideas

Copyright and the Internet

- Shetland Times Case

- Copyright and Related Rights Regulations 2003
  - protection of technological measures to prevent unauthorised copying (not computer programs)
  - limitation of user rights (i.e. research exemption only for non-commercial research)
  - extension of reproduction and public communication right in digital context (transient reproduction)

- New challenges of "Web 2.0" activities – MySpace and YouTube
  - Need to obtain rights clearances
  - Control of uploaded material

Databases

- Database = "a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means"

- EU Databases Directive in 1996 = Copyright and Rights in Databases Regulations 1997

- Protection in two parts
  - copyright protection for "**structure"** of database
  - Structure = method of arrangement involving intellectual judgment
  - a new database - specific right for the **contents** of the database

Database Rights

- Right to maker of database to prevent unauthorised extraction/ utilisation of the database contents
- Extraction
  - transfer of a substantial part of contents to another medium
- Re-utilisation
  - making available a substantial part of the contents to the public by distribution of copies
- Protection lasts for 15 years
  - living database = potentially indeterminate protection

- William Hill case

Case Study 1

Open Source Software

Overview

- Basics of software licensing

- What is Open Source?

  _____

- Key features of Open Source Licences

- Risks of Open Source and how to manage them

  _____

- Questions

The rise of Open Source ("OS")

- Huge rise in revenue of Linux-based server hardware

- Two thirds of servers run on Apache OS software

- Bristol City Council to save £1m by using StarOffice

- Firefox Browser reaches one in ten Internet Users

- 90% of enterprises running both Windows and Linux say they spend less effort managing Linux

What is Open Source?

Software Licensing 101

Exam Paper

Question 1 – What is Open Source?

(a) A tale of penguins and gnus
(b) A philosophical crusade
(c) An efficient way to facilitate the
    development of software
(d) A threat to the domination of Microsoft
(e) A type of software licence
(f) ALL OF THE ABOVE

Software licensing and risk

- Businesses and academic researchers are risk managers

    - Avoiding copyright infringement

    - Not breaching the terms of software licences

- Open Source is a new(ish) area of legal risks for developers and users

- OUT-LAW Survey – 75% of developers "borrow" code from 3rd parties

- Evaluating risks is key to choice between Open Source and proprietary software

The need for licensing

- IPR in software
  - copyright
  - patents
  - database Rights

- Copyright Infringement
  - copying, using or storing the whole or a substantial part
  - quality, not quantity

- Software licences legitimise acts that would otherwise amount to copyright infringement

Source Code

- The "crown jewels" of any software house

- Program code which a (skilled) programmer can read

- Key to modifying code to correct errors, add/remove and develop

- Very rarely disclosed to users
  - Source code escrow as a form of insurance
  - **Source code escrow** *is the deposit of the source code of software with a third party escrow agent. Escrow is typically requested by a party licensing software (the licensee), to ensure maintenance of the software. The software source code is released to the licensee if the licensor files for bankruptcy or otherwise fails to maintain and update the software as promised in the software license agreement.*

Proprietary Software Licensing

- Supplier-biased terms

  - Tight licence grant (limited scope of use, number of users etc.)

  - Closed source

  - Licence Fees, royalties, duration and termination

  - Strict limitations on liability

- Customer-biased terms

  - Software warranties

  - IPR Indemnities

Open Source – the developer & business view

- Highly collaborative (chaotic..?) development model

- Rapid evolution of software

- 'The Cathedral and the Bazaar'

- Cheaper alternative to proprietary software

- 'One in the eye' for Bill Gates

Open Source – the legal view

- Just another type of software licence

- Typical features:
  - Full access to source code
  - Right to modify code and to distribute
  - 'Sharing' of modified code through the same terms
  - Little warranty protection
  - Licence often at no charge (but often with support charge)

Standard form OS Licences

- A range of standard form licences

- Some examples:

  - GPL – the Gnu General Public Licence

  - BSD – the Berkeley Software Distribution

  - MPL – Mozilla Public Licence

  - Apache, MIT, etc.

Key risks in OS licensing

- Risk 1 - IP infringement claim

    - IP Indemnity protection (or lack thereof)

- Risk 2 - Limitations on onward exploitation

    - Reciprocity (the 'forcing restriction')
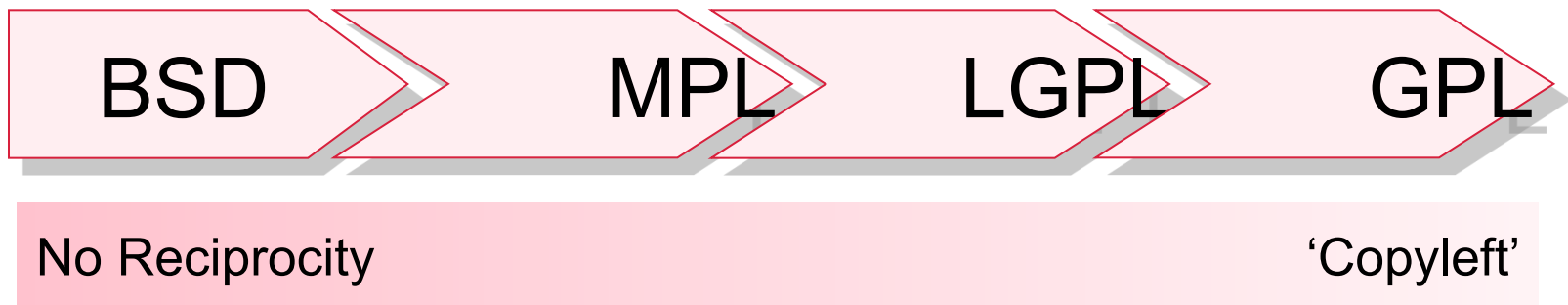
    - Managing the risk

Risk 1 - IP Infringement

- Nature of OS development

  - Complex history with many contributors

  - Hobbyist developers may take 'short-cuts'

- Potential for allegations of copyright infringement

- Potential risks / restrictions in onward exploitation of modified code

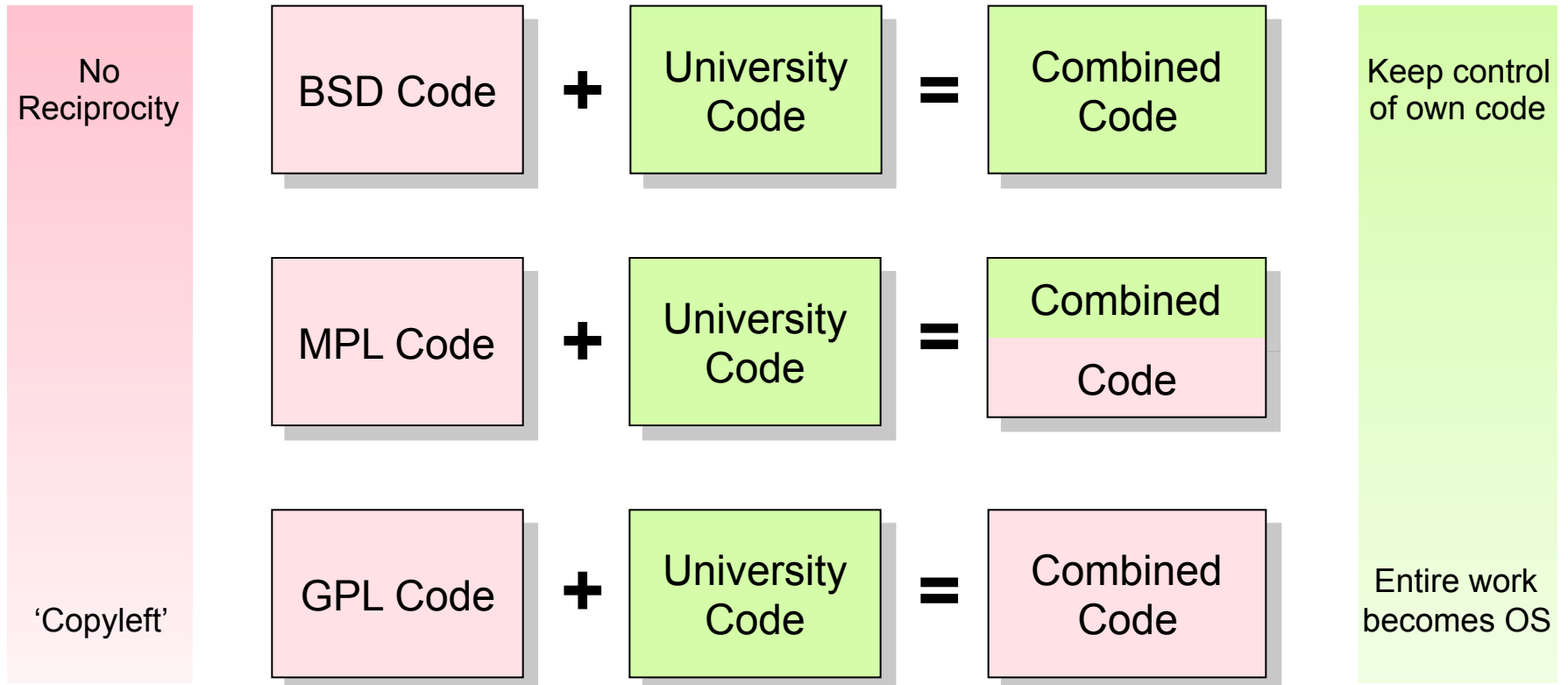- Needs to be dealt with as an additional business risk

Risk 2 – Reciprocity (Developers Only)

- What happens if a university researchers uses OS in developing research results / new software?

- Do you have to license the derivative works on same basis?

- Main difference between Licences is treatment of derivative work

BSD	MPL	LGPL	GPL

No Reciprocity   'Copyleft'

OS Licence Comparison

| No Reciprocity | BSD Code | + | University Code | = | Combined Code | Keep control of own code |

| | MPL Code | + | University Code | = | Combined / Code | |

| 'Copyleft' | GPL Code | + | University Code | = | Combined Code | Entire work becomes OS |

Managing Open Source Risk

- Create an internal OS policy

- Inform and educate developers / key relevant research groups

- Carry out an audit of open source use prior to exploitation of end "product"

- Create an audit trail for future use / licensee diligence

- Consider the risk in licensing on software containing open source code

- Reflect use of open source software in licence terms

  - Limited warranties / no indemnity

  - Include appropriate "reciprocity" provisions, if required

Summing up the risks of Open Source

- Approach to risk depends on whether you are:
  - an internal user / researcher using an OS product as a research tool only
  - a developer / researcher incorporating OS in software that is developed as a research output

- OS Licences are still software licences…
  - the risks will vary depending on which licence is used
  - proper due diligence means an effective, up front review of the agreement
  - reflect outcomes of review in contracts with third parties that are used to exploit the university's technology

Case Study 2

Patents and Computer Programs

Patenting

- Patent protection is granted to inventions

- It gives the patent holder a negative right of monopoly

- It is a deal between the 'inventor' and the State

Patenting Basics – The Tests

- Must be:

  - Novel
    - not in public domain

  - Non-obvious
    - not obvious to someone skilled in the art

  - Have Industrial Application

Patenting Computer Programs

- Unlike in US and Japan in the UK computer programs are *per se* specifically excluded from patentability

- EU are still looking at this issue

- Special "technical effect"
  - what is that?!

- Draft European directive on this issue

Patenting Computer Programs

- Patents **are** granted in respect of computer programs in Europe

- IBM Case
    - "novel" window environment
    - special "technical effect"

- Draft EU Directive
    - "Technical Contribution"
    - "Isolated Programs" excluded from patentability
    - Still not finalised!

Patenting in the US

- Much more straightforward

- Possible to lodge claims covering the program itself

- Microsoft alone holds thousands of patents for computer programs

- In US more than 10,000 applications filed annually

Strictly Confidential

- Disclosure into the public domain prior to filing a patent application = lack of novelty for your invention"

- Control disclosure of commercially sensitive/patentable technical information

- Use confidentiality agreements - 6 month novelty extension

- Disclose object code not source code

Case Study 3

Questions

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