COMP140: Creative Computing Hacking

IP Law & Open-Source Licensing

Lecture Objectives

Today's lecture will introduce the basics of intellectual property law, focusing on:

- Ownership & Contracts
- Copyright
- Moral Rights
- Trademark
- Design Rights
- Trade Secrets
- Patents
- Licences

The information in this workshop is for educational purposes only. It is not being delivered by a legal expert and its content does not constitute legal advice.

Lecture Objectives

Today's lecture will also go into more depth with respect to open-source licences, focusing on:

- Creative Commons Licences
- MIT Licence
- Apache Licence
- GNU General Public Licence

The information in this workshop is for educational purposes only. It is not being delivered by a legal expert and its content does not constitute legal advice.

Further Reading

- Ibrahim, M. (2009) 'Legal Issues in Game Development'. In: Sikora, D. and Hattan, J. (Eds.) *Business and Production for Games: A GameDev.net Collection*. Cengage Learning: New York.

- Ibrahim, M. (2009) 'Analysis: Clone Games and Fan Games — Legal Issues'. In: *Gamasutra* `http://www.gamasutra.com/view/news/117234/Analysis_Clone_Games__Fan_Games__Legal_Issues.php`.

Further Reading

- Brathwaite, B. and Schreiber, I. (2009) *Challenges for Game Designers: Non-Digital Exercises for Video Game Designers*. Charles River Media: Boston, MA.
- Stein, J. (2015) *The Legal Nature of Video Games — Adapting Copyright Law to Multimedia*. Press Start, vol. 2, no. 1, pp. 1—13.
- Stein, J. (2015) *Authorship and Moral Rights in Video Games*. Press Start, vol. 2, no. 2, pp. 1—13.

Further Reading

- Samuelson, P., Denber, M., and Glushko, R.J. (1992) *Developments on the Intellectual Property Front*. Communications of the ACM, vol. 35, no. 6, pp. 33—39.
- Samuelson, P. (2008) *Hacking Intellectual Property Law*. Communications of the ACM, vol. 51, no. 1, pp. 65—67.
- Samuelson, P. (2015) *Software Patents Are Falling Down*. Communications of the ACM, vol. 58, no. 11, pp. 27—29.

Further Reading

- Robert W. Gomulkiewicz, De-bugging Open Source Software Licensing, 64 U. Pitt. L. Rev. 75 (2002)
- Robert W. Gomulkiewicz, How Copyleft Uses License Rights to Succeed in the Open Source Software Revolution and the Implications for Article 2B, 36 Hous. L. Rev. 179 (1999)

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Important Notice

This is the final week prior to the Easter break. The University will be closed on Good Friday.

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Intellectual Property

Learning Outcomes

In this section you will learn how to...

- **Distinguish** between the structure of civil law **and** criminal law
- **Explain** the importance of ownership issues and contracts in game development
- **Explain** what copyright, moral rights, trademarks, design rights, trade secrets, and patents are.
- **Discuss** the role of licensing in intellectual property usage and management

Civil vs Criminal Law

- **criminal law**: the body of law dealing with crimes and their punishment. Law sets out all the things which are considered unacceptable, and which will render someone liable for prosecution.

- **civil law**: the body of law dealing with disputes between individuals, organisations, and other bodies. It is a very complicated system which tries to set out rules to cover all the sorts of situation that may arise in life, and provides for disputes to be decided by a Judge if the parties are unable to sort it out themselves.

Civil vs Criminal Law

- Businesses can engage in criminal acts. Such acts include: fraud, industrial espionage, and tax evasion.
- Most acts, however, are civil in nature. Such acts include: failure to pay bills; breaches of contract; and misuse of intellectual property.

Civil vs Criminal Law

The reasons why is because UK law has many different sources, some of which include:

- **statute**: legislation from UK Parliaments and its devolved counterparts.
- **'common law'**: principles established through historic cases.
- **EU**: regulations and directives set by Europe for all EU citizens.

Civil vs Criminal Law

- An interesting characteristic of the law in England is the `doctrine of judicial precedents´: the judgements of the courts are a binding source of law for future cases.
- Judges are bound by the judgements of courts of a higher jurisdiction (although not those of the lower courts).
- Often appeals processes are based on making a distinction from such historic cases or on the basis of lower courts misinterpreting the law.

Civil vs Criminal Law

- In civil courts, the claimant assembles their case, with the standard of proof being the balance of probabilities: the case must be more likely to be correct than incorrect.
- In criminal courts, the prosecution have the burden of proof, and the standard is much higher: they have to prove their case `beyond reasonable doubt'.

Intellectual Property

- IP law is designed to reward and motivate the contributions of human intellect.
- This is achieved by granting certain rights which are commercially valuable.
- Essentially, the right to make profit from the actualisation and application of your ideas.

Intellectual Property

- IP law is covered by the civil courts.
- Do not breach IP law, as you may be sued.
- Even if, you are not making money yourself, you may be denying profit to the defendant. Even if you are not worth suing because you have no money, they may remedy the situation with injunctions and take-down notices.
- IP owners have a legal responsibility to actively protect their works, or risk losing their rights.

Socrative JBYPC3BBY

Alice is a computer programmer. In her free time, she programs a game. Alice, however, is not an artist. She asks Brian, a friend, for help. Brian agrees and contributes artwork to the game. No compensation is discussed and no written agreement exists.

- **Who** owns the game overall?
- In pairs, discuss who owns the game overall for 2 minutes.
- **Select** your choice.

Ownership & Contracts

- When more than one person contributes to a work and no agreement exists, co-authors are joint owners and everyone retains an equal share in the entire work (Ibrahim, 2009).
- In an employer/employee context, the employer always owns the copyright (Ibrahim, 2009). This is implicit within your contract of employment.
- In a client/worker context, an intellectual property transaction is set out as a contract. Typically, the IP belongs to the creator of a work, but in the case of contract work it will likely be transferred to another party as part of the contract.

Ownership & Contracts

Contracts require several things to be valid (Ibrahim, 2009):

- Capacity
- Mutual Assent
- Legal Purpose
- Bargained-for Consideration
- A Signed-Writing*

Copyright

- Copyright protects a work from being: translated, copied, publicly performed/transmitted/broadcast, and adapted.
- Any time someone copies, performs, or displays a copyrighted work without permission, they commit copyright infringement.
- Specifically, it protects only expressions, and not ideas.
- Copyright has a limited duration, after which work goes into the public domain.

Copyright

'Fair dealing' exceptions exist:

- Non-commercial research
- Private study
- Criticism, Review, and Reporting
- Teaching
- Assistance for Disabled People
- Time-shifting
- Parody
- Orphan Works

Moral Rights

- Protect the personal interests of the author of a copyrighted work.
- Moral rights include:
  - Right to be identified
  - Right to object to derogatory treatment
  - Right to object to false attribution
  - Right to privacy

Trademark

- Trademarks identify the source and/or quality of a product or service.
- Protects branding and brand names, so long as its use does not become diluted.
- Registration of a trademark is advised as it strengthens its validity, but protection is automatic once brand names are used in commercial transactions.
- Most registered trademarks are internationally-binding through the Madrid Protocol.

Design Rights

- Protects the (3D) shape of a product. Enables a design to be distinctive.
- Often used to protect particular user interface elements which are novel.
- Does not extend to other aesthetic properties.
- Right applies to UK/EU inventors.

Trade Secrets

- Trade secrets are secrets that have commercial value.
- For a valid trade secret to exist, the company claiming a trade secret must clearly determine what it is and will take steps to keep it concealed.
- Often, takes the form of Non-Disclosure Agreements (NDAs).
- Breach of an NDA can result in substantial damages being awarded.

Patents

- Protects inventions, processes, methods, and products
- Criteria include: novel, inventive (not obvious to a skilled person), and capable of industrial application.
- Must be registered formally and examined.
- Difficult and expensive to obtain, but provides a monopoly over the invention for a period of time.
- In exchange for public disclosure, protects the idea behind the invention.
- Patents can be territorial or international via the Paris Convention.

Licenses

- A licensing agreement is a partnership between an intellectual property owner (licensor) and another who is authorized to use such rights (licensee) in exchange for an agreed payment, be that a fee or a royalty.
- Includes: technology license; end-user license; trademark franchising agreement; copyright license agreement; etc.
- Licensing can broaden the reach of IP into different markets, without the holder incurring risks.
- Sometimes there are databases endorsing a `license of right' which means the IP holder grants permission to anyone who asks, usually for a fee or a set royalty agreement.

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Practical Activity

Socrative JBYPC3BBY

- **Self-organise** into your COMP150 groups.
- **Select** a well-known intellectual property: Mass Effect; Star Craft; Mario; Crazy Taxi.
- **Discuss** on Slack for 15 minutes the legal implications of using any of their IP.

- **Summarise FIVE** key IP laws that prevent you from using elements from the IP.

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Open Source Software Licenses

Learning Outcomes

In this section you will learn how to...

- **Recognise** the philosophy of open-source licensing and its benefits
- **Differentiate** between the Creative Commons, MIT, Apache, and GNU General Public Licenses
- **Suggest** the most appropriate license for a given circumstance

This section has been adapted from the talk `A Lawyer Looks at the Open Source Revolution' by Robert W. Gomulkiewicz.

Open Source

- Source = software in source code form
- Open = freedom to:
  - View the source code
  - Run the software for any purpose
  - Modify the software in any way
  - Distribute the software and any modifications
- Software Development Model
- Philosophy — Share and Collaborate
- Licensing Model

Open Source

- Opposite of `proprietary' (`commercial') software:
  - Hold the source code as a trade secret
  - Distribute software as a binary
  - Limited licensing for derivative works
  - Buggy, and difficult to extend

Open Source

Notable names in Open Source:

- Richard Stallman (Free Software Foundation)
- Eric Raymond (The Cathedral and the Bazaar)
- Linus Torvalds (Linux)
- Bruce Perens (Open Source Definition)

Open Source

"Given enough eyeballs, all bugs are shallow" — Eric Raymond

Open Source

Advantages of open-source:

- Scratching an itch to fix or extend something
- Forking and Pull-Requests
- Peer Review
- Centralized decision-making

Open Source

- Software has always traditionally been shared by scientists and hobbyists
- The Internet and WWW makes sharing and collaboration very efficient
- Watershed: Netscape licensed Communicator under an open source license
- Linux+Apache became the most popular web server
- Ever-increasing adoption

Open Source

As a business model:

- "Think `free speech', not `free beer"' — Richard Stallman
- Branded distributions
- Sell hardware, give away software
- Sell services and support
- Dual versions, dual licensing
- Value added software
- Sell sponsorships, ads, and T-shirts

Open Source

Free and open is not:

- Public domain
- Copyright `first sale'
- Shareware or freeware

Open Source

Licenses (and IP law) make it work:

- Control and limitations over use
- Risk shifting
- To remain free (and worthwhile), software must be copyrighted and licensed

Creative Commons

Key terms:

- Flexible. Can be customised.
- BY = Attribution.
- SA = Share Alike.
- ND = No Derivatives.
- NC = Non-Commercial.

BSD Licence

- License grant: unlimited use, modification, distribution
- No warranties; disclaimer of consequential damages
- No endorsement
- Attribution required.

MIT Licence

- commercial use
- can modify
- can distribute
- can sub-license
- private use
- cannot hold liable
- must include copyright notice
- must include copy of license in distribution

Apache Licence

- freely download and use Apache software, in whole or in part, for personal, company internal, or commercial purposes;
- use Apache software in packages or distributions that you create.
- must redistribute any piece of Apache-originated software with proper attribution;
- must not use any marks owned by The Apache Software Foundation in any way that might state or imply that the Foundation endorses your distribution;

Apache Licence

- must not use any marks owned by The Apache Software Foundation in any way that might state or imply that you created the Apache software in question.
- must include a copy of the license in any redistribution you may make that includes Apache software;
- must provide clear attribution to The Apache Software Foundation for any distributions that include Apache software.

GNU General Public Licence

- Unlimited right to run program
- Unlimited access to source code
- Unlimited right to distribute verbatim copies
- May create derivatives IF you agree to make the derivatives free
- License is viral
- No warranties; disclaimer of consequential damages

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Practical Activity

Socrative JBYPC3BBY

In your teams:

- **Research** the SCO litigation case.
- **Discuss** the litigation for 10 minutes on Slack.
- **State ONE** fact about the case for EACH member in your group.

Socrative JBYPC3BBY

In your teams:

- **Research** the licenses in more depth.
- **Discuss** which license is most suited to your COMP150 game for 10 minutes on Slack.
- **Suggest ONE** license **and justify why** you chose it.

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Practical Activity

API Proposal

- **Write** your proposal.
- Do this in a Markdown document in the COMP140 GitHub repository.
- You have 15 minutes.

API Proposal Review

- **Swap** proposals with another student.
- **Review** the proposal that you have received.
- **Assess** the scope and feasibility of the proposal.
- **Assess** the novelty and potential utility of the proposed plug-in.
- **Assess** the commercial awareness demonstrated in the proposal.
- **Complete** the review form.

- You have 25 minutes.

Coursework Progress

You should, by now, have:

- **Identified** partners for the API task, where appropriate.
- **Developed** a draft proposal.

You should, now:

- **Revise** the proposal.
- **Make** a pull request by Thursday for tutors to review.
- Once approved, **commence** prototype development.