

Software Engineering

Intellectual Property Issues

admin

- Questions?
- Project issues?
- presentation on intellectual property already?
- You will make your living creating intellectual property – a software engineering needs to know the basics.

Intellectual property protection

- There are 4 types of intellectual property protection in the US
 - Copyright
 - trademark
 - patents
 - trade secrets
 - the 11 herbs and spices recipe
 - the formula for coke
 - etc

Foundations

- The foundations of most intellectual property law in the US:
 - Article I Section 8 detailing the powers of congress
 - paragraph 8 allows congress to:
 - To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries;

Copyright

- Copyright is:
 - form of protection granted by law for original works of authorship fixed in a *tangible medium*
 - both published and unpublished
- copyright protects
 - literary, dramatic, musical, and artistic works, such as poetry, novels, movies, songs, computer software, and architecture

Copyright II

- Copyright allows holder control over
 - copying, distribution
 - derivative works
 - sequels, movie/book versions, use of characters from the work (merchandising)
 - plane crazy/steamboat Willie 1928
- Copyright does not protect
 - facts, ideas, systems, or methods of operation
 - possibly covers the way above are expressed.

Copyright effective immediately

- Under today's copyright law
 - copyright is effective under US law
 - “the moment it is created and fixed in a tangible form that it is perceptible either directly or with the aid of a machine or device”
 - used to have to insert
 - © <name><year> into your written work
 - most still do, but not needed any more.
- copyright registration with government
 - needed to bring infringement lawsuit
 - registration w/in 5 years Prima facie evidence

Copyright ownership

- Initial ownership
 - of work is with author(s)
- Copyright in each separate contribution to a collective work is distinct from copyright in the collective work as a whole
 - each author keeps copyright over his/her own part
 - unless transfer of ownership

Transfer of ownership (Copyright)

- Transfer can occur any way that property can
 - wills, selling, legal giving away etc.
 - forms any the like

Work for hire

- Work for hire
 - in work for hire, employer (or other person for whom work prepared) considered author and entitled to copyright
 - when you hire artists for your game
 - best to hire them on work for hire contracts.

Duration of copyright

- Duration of copyright in US has changed over years
 - originally <30 years.
 - currently
 - works created after January 1, 1978, copyright protection lasts for the life of the author plus an additional 70 years
 - anonymous work, pseudonymous work, or work made for hire:
 - copyright term of 95 years from the year of its first publication
 - or a term of 120 years from the year of its creation, whichever expires first
 - for works published before 1978 term varies
 - works before 1923 are in public domain
 - most works published before 1978 have 95 year term. (mickey mouse protection act)

Copyright and the Courts

- before 1999 (US)
 - all copyright claims were handled as civil cases
 - civil cases have no presumption of innocence
 - no beyond a reasonable doubt
 - not a felony – no jail time possible.
- after 1999 (DMCA)
 - some copyright claims now criminal
 - more than 10 copies and value over \$2500 was made a felony
 - tradeoffs

Public Domain

- Public Domain
 - works which belong to everyone (the public)
 - are part of our shared cultural heritage.
 - Works that have expired copyright enter the public domain
 - Can be reproduced, extended, characters reused etc as desired.
 - Works created by US government with government money automatically in public domain.

Fair Use

- In US fair use exemption
 - commentary, parody, news reporting, research and education about copyrighted works without the permission of the author.
 - requirements
 - short excerpt, should be attributed (referenced).
 - It should not harm the commercial value of the work
- Fair use globally
 - many countries have something like fair use (e.g. fair dealing in Canada)

Copyright and internationalization

- US copyright law originally based on English common law
 - Statute of Anne (1710)
 - copyright originally financial in nature
 - more recently influenced by French law and notions about rights of author/creator.
 - internationalization see next.

Bern Convention/Treaty

- Bern Convention/Treaty
 - originally met in 1886
 - multi lateral treaty for propagation to copyright
 - copyright in one country yielded copyright in all
 - many attendees didn't ratify/join till much later.
 - updates several times in last century+

Bern Treaty Signatories

- Bern treaty applicable to pretty much every one here.
 - signatory countries of interest:
 - United States March 1, 1989
 - Russia March 13, 1995
 - Jordan July 28, 1999
 - India April 1, 1928
 - China, People's Republic of October 15, 1992
 - Cape Verde July 7, 1997
 - Turkey January 1, 1952

International Copyright issues

- Bern Treaty stipulates copyright granted in one country will be granted automatically in second.
 - second country's copyright laws rule there
 - including copyright expirations
 - nation by nation public domain issues.
 - e.g. Mickey Mouse park in China.

Idea vs Expression

- Copyright covers/protects the expression of an idea
- Trademark covers/protects the idea itself.
 - In games this leads to genres
 - 'shooter games'
 - 'diablo clones'
 - MMOs
 - All games in a genre share certain look and feel characteristics
 - And even some gameplay similarities
- Court cases may change that
 - Eg: DaVINCI EDITRICE S.R.L., Plaintiff, v.ZIKO GAMES, LLC, et al., Defendants.
http://scholar.google.com/scholar_case?case=5597788239119337082

Trademarks

- Trademark:
 - word, symbol, or phrase,
 - used to identify a particular manufacturer or seller's products
 - distinguish them from the products of another.
- service marks
 - relationship
 - in this lecture consider two as same.

Non word /symbol trademarks

- Occasionally able to trademark non words/symbols.
 - style trademark-able only when no competitive advantage provided.
 - Owens-Corning fiberglass
 - Coke Bottle shape
 - new bottle that allows more in with less material **not** trademarkable

Trademark intended for convenience

- Trademark
 - allow customers to skip reading fine print
 - allow customers to easily identify products from particular supplier
 - example

Trademark law in US

- Originally state by state laws in US
 - federal trademark law in 1880s
 - expanded since last in 1996
 - mostly federal now
 - though state trademarks available

Requirement for Trademark

- In order to be a trademark must
 - be distinctive
- four classes of distinctiveness
 - (1) arbitrary or fanciful,
 - (2) suggestive,
 - (3) descriptive,
 - (4) generic

Arbitrary or Fanciful

- In Arbitrary/Fanciful marks
 - bears no logical relationship to the underlying product.
 - examples?

Suggestive

- Suggestive Marks
 - evoke or suggest characteristics of product
 - but not description
 - examples?

Descriptive marks

- Descriptive mark
 - directly describes, rather than suggests, a characteristic or quality of the underlying product
 - acquires secondary meaning when the consuming public primarily associates mark with producer, rather than product.
 - eg. Holiday Inn
 - others?

Generic marks

- Generic marks describe a general category that the product/service is in
 - not eligible for trademarking
 - eg
 - growlights brand lightbulbs
 - cola brand carbonated brown sugar water
 -

Getting a Trademark

- How does one get a trademark in US
 - (1) by being the first to use the mark in commerce;
 - only applies where you are selling something
 - market by market issues
 - (2)(or) by being the first to register the mark with the U.S. Patent and Trademark Office ("PTO")
 - can't use 2 for descriptive mark have to establish secondary meaning (and show that) first.
 - registration provides nationwide trademark protection

Duration of Trademarks

- Trademarks do not expire
 - they are a way of identifying a company/supplier
 - last as long as the company wants them
 - with small exception – see next
 - Western Union still has name trademarked after 100+ years.

Losing a Trademark

- Trademarks can be lost through:
 - abandonment,
 - non-use for three consecutive years is prima facie evidence of abandonment
 - dodgers
 - improper licensing or assignment
 - licensed w/out proper quality control/oversight
 - genericity
 - former trademark now used for class or products
 - electric torches in US

Trademarks important for Software

- In Games
 - trademarks for companies
 - for software franchises
 - for symbols on them

-

Trademarks in Modern Software

- And in modern 3D games.
 - Trademarks from other companies might show up in games.
 - Electronic Arts v. Textron
 - 2011 case
 - EA's Battlefield 3 : used trademarked look of Textron's military hardware.
 - Supreme court ruled it was protected 'expressive speech'

Others Trademarks

- From INTA website
- Court cases proved out right to use others trademarks in your apps in limited ways:
 - Nominative use
 - In *Tiffany Inc. v. eBay, Inc.*, 576 F. Supp. 2d 463 (S.D.N.Y. 2008), eBay's use of Tiffany's mark in an online advertisement: protected nominative fair use when new and used Tiffany products were in fact for sale on eBay's site.
 - *Designer Skin, LLC v. S & L Vitamins, Inc.*, 560 F. Supp. 2d 811 (D. Ariz. 2008) Trademark law: one who trades in a branded good can accurately describe it by the branded name so long as confusion is not created by implying an affiliation with the trademark owner. This is true even when the trademark is used in keyword advertising or metatags.

Licenses

- Works protected by copyright are often made available under certain licenses
 - allow permissive use under limited circumstances
 - BSD license
 - GPL
 - LGPL
 - Mozilla Public License

Patents

- Patent:
 - exclusive rights granted by government to inventor or assignee for a limited period of time in exchange for a public disclosure of an invention.
 - government given.
 - much shorter than copyright

Types of Patents

- In US three types of patents
 - A *utility patent* protects new and useful inventions.
 - methods, processes, chemical compounds etc
 - A *design patent* protects the appearance of a good, not its functionality.
 - A *plant patent* products new varieties of man-made asexually reproduced plants.

Patent Duration

- In US:
 - utility and plant patents last 20 years
 - design patents last 14 years
- WTO issues
 - all WTO signatories must provide minimum 20 year utility patents

Patent Prerequisites

- In order to obtain a patent, must apply to patent office.
- three prerequisites
 - must be patentable subject matter, a new and useful, process, machine, manufacture, or any improvement thereof.
 - must be useful, generally any useful result qualifies.
 - must be novel. It cannot be patented anywhere else or a similar process, machine, manufacture cannot be described in an existing publication

Prior Art

- Novel requirement often a stumbling block
 - if patent application initially granted, can still be revoked by showing prior art.
 - prior art: an existing example of patented subject material not produced by patent filer.
 -

Patents in Games

- Software patents hotly debated topic
 - but patents on “new ways of storing compressed music data” or images and the like
 - when making game:
 - make sure you use file formats that you license or free formats.
- design patents need to be considered as well.

Terms of Service

- Contract between developer and customer
 - Must be available before non-refundable purchase is made
 - One important feature: use them to govern jurisdiction
 - Else developer can be sued anywhere they are selling lots of copies of their game
 - Candy crush lawsuits in all 50 states!?!

End

- End of intellectual property for now