


# IP

But first, I want to talk about Jennifer, she's very helpful

View More Photos



Book a Test Drive

At-Home Test Drive

View Details

Add to Compare

2019 BMW 430 i xDrive

Price: **\$65,110**

Price does not include taxes and licensing fees.

Body Style: Coupe

Engine: 2.0L 4cyl

Exterior Colour: Blue

Transmission: Automatic

Stock #: N36041 AV

City: Markham

Jennifer


BMW Markham

I'm online! How may I help? 🙋

Your message

SMS

View More Photos



View Details

Add to Compare

2019 BMW 650i Gran Coupe

Price: **\$118,331**

M Sport Plus Edition, Carbon Fibre Trim w/ ZJB, ZJE, ZJI, ZJJ, ZJY, or ZJZ, Driving Assistant Plus, Harman/Kardon Sound System, Black Sapphire Metallic, Vermillion Red Extended Nappa Leather

Request Information

Jennifer

Endras BMW

I'm online! How may I help? 🙋

Your message

SMS

Ignore the cars in these photos. The important part is the bot on the right “Jennifer” is moonlighting for two BWM dealerships in the GTA, at midnight on a Tuesday.

# Something interesting

## California Law Bans Bots From Pretending to Be Human

*Effective July 1, it will be illegal for bots interacting with California consumers to pretend they're human if they're trying to sell goods, services, or to 'influence a vote in an election.'*



By Adam Smith October 2, 2018 12:57PM EST

[f](#) [t](#) [in](#) [p](#) [r](#) [e](#) [e](#) 24.3K SHARES



- <https://www.nationalobserver.com/2019/10/10/news/fake-justin-trudeau-sex-scandal-went-viral-canadas-election-integrity-law-cant-stop>

- <https://www.cnn.com/2019/10/13/politics/elizabeth-warren-facebook-feud/index.html>

# Copyright Patent and Trademark

# Relevant to Copyright

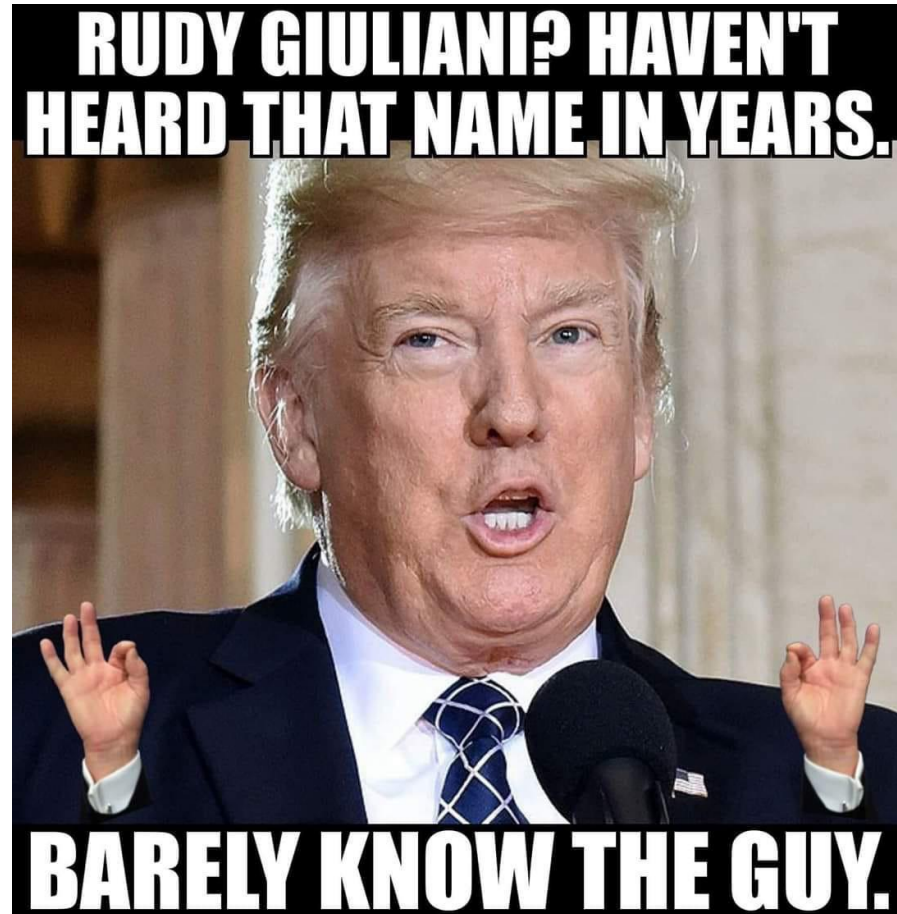
- Is it anyone's birthday?
- If we sing happy birthday to you... is that legal?
- The basic tune to Happy Birthday is attributed to an American song "Good Morning to All" from 1893
- The Happy Birthday to You song was copyrighted in 1935 (but should have been earlier)
- The expiry would be 2030 (US) 2016 (EU)
- Yes, really, singing happy birthday is a breach of copyright in the US.

# Intellectual Property

- Can you own ideas? Can you own expressions of ideas?
- Who should pay for the authorship of books and technical designs and music and art? And if so how do you get that money?
- What about ^ but when done for hire (e.g. the guy who made stormtrooper helmets for Star Wars)?



- Sri play video:
- Faceswapping, Unethical Videos, and Future Shock.webm
- (The quick class discussion – what happens when fake video gets so good it can't be distinguished from real video? Who owns a 'likeness'? This is of course an emerging field)



- Obviously doctored
- Obviously intended to be comedic
- But thus far, this isn't something Trump has said (as of Oct 15 at 8am 2019)
- So it's fake on many levels – does that mean something should be done to control/curtail distribution?

# What types of things does “intellectual” include?

- Writings (books, papers, articles)
- Designs both style and technical
  - There is a special type of IP law for semiconductor topography
- Inventions
- Trademarks
- Trade Dress (what stuff looks like if it's iconic)
- Trade secrets
- Plant Varieties (yes really)
- Databases that are not trivial to compile

# What is “Property”

- Ah... this is a bit more problematic....
- In practice IP are real assets, they can be bought, sold, they are owned by estates of the dead etc.
- But they are only sort of analogous to real property.
- The time required to produce them is real, and that is finite resource, but they are not globally limited

# Property and IP

- There is quite a bit of controversy over what exactly is or should be intellectual property
- There are a number of different schools of thought on the whole thing
- The group of people who make the laws that are in place, and the people who paid for those laws are in one group
- But there are advocates and professors and freedom lovers who want different rules.

# Who actually owns your stuff?

- One of the profound questions with IP law is who really owns stuff?
- You can own a book, but you do not own the words on the page and print new copies of that book to redistribute
- What about Photocopiers in the library?
- What about uploading/downloading from the piratebay?
- What about buying a DVD for Europe (region coding)?

# Goal of IP Law

- Broadly, the goal is to encourage innovation, and prevent fraud
- The Law defines what you can make into a contract
- Many contracts and licences are much less restrictive than the law allows

# History

- New Laws build on old ones
- Old laws where written for one set of realities of the time
- But times change



# Ancient Greece and Rome

- Both the Greeks and Romans had some idea of ownership of creative works
- Your own recipes/poems/art etc. were yours and you couldn't pass off a copy as yours if it wasn't.
- The 14<sup>th</sup> century the Venetians (as in Venice, modern Italy) had ownership of manufacturing techniques, particularly glass making

# 15<sup>th</sup> century

- In the 15<sup>th</sup> century as Venetian glass makers moved to Europe governments granted Letters Patent
- Letters Patent were (and are) a public state proclamation of something, for this sort of thing it is a state monopoly on something.
- (Letters Patent are broader than just IP law, for example granting titles).

# Monopoly

- Monopolies means one person controls the market
- State granted monopoly means that whomever has it has legal control over 100% of the market for that monopoly.
- Lots of countries (including Canada) have crown monopolies on lots of things.
- Non State monopolies are usually temporary in duration

# Monopoly- Economics

- The idea with a state granted monopoly is to encourage an activity that would not otherwise be profitable
- Or to pad the coffers (treasury) of the state with money
- We are mostly interested in the top one
- The NSA in the US also uses patents to own cryptography ideas.

# Enter – The Printing Press

- Prior to the printing press making books was very expensive
- Most of the cost was the labour in duplication, so the authorship cost was, if nothing else, valuable in that it takes a long time to write a book the first time, and read it to a room full of people.
- But the printing press tossed that whole thing out the window

# Authorship and Printing Press

- The printing press made duplication cheap
- In 1501 the Pope issued law about unlicensed printing of books (in 1501 the Papacy was still something like the UN of the Western Christian world).
- This led, naturally, to state licensing of printing presses – which granted then exclusive rights to print things for a duration.

# Copyright and Monopolies

- Until well into the 1600's these were one in the same a Letter Patent granted a monopoly on something – a book, horses, salt etc.
- In 1624 The Statute of Monopolies was passed... while still technically kinda sorta in force in the UK/Canada/Australia etc. it was mostly superceded in detail in 1707. It granted Parliament the authority to grant monopolies

# 1710 The Statute of Anne

- Anne as in Queen Anne I
- This established modern notions of Copyright law. By the end of the 1700's it had spread to most of Europe.



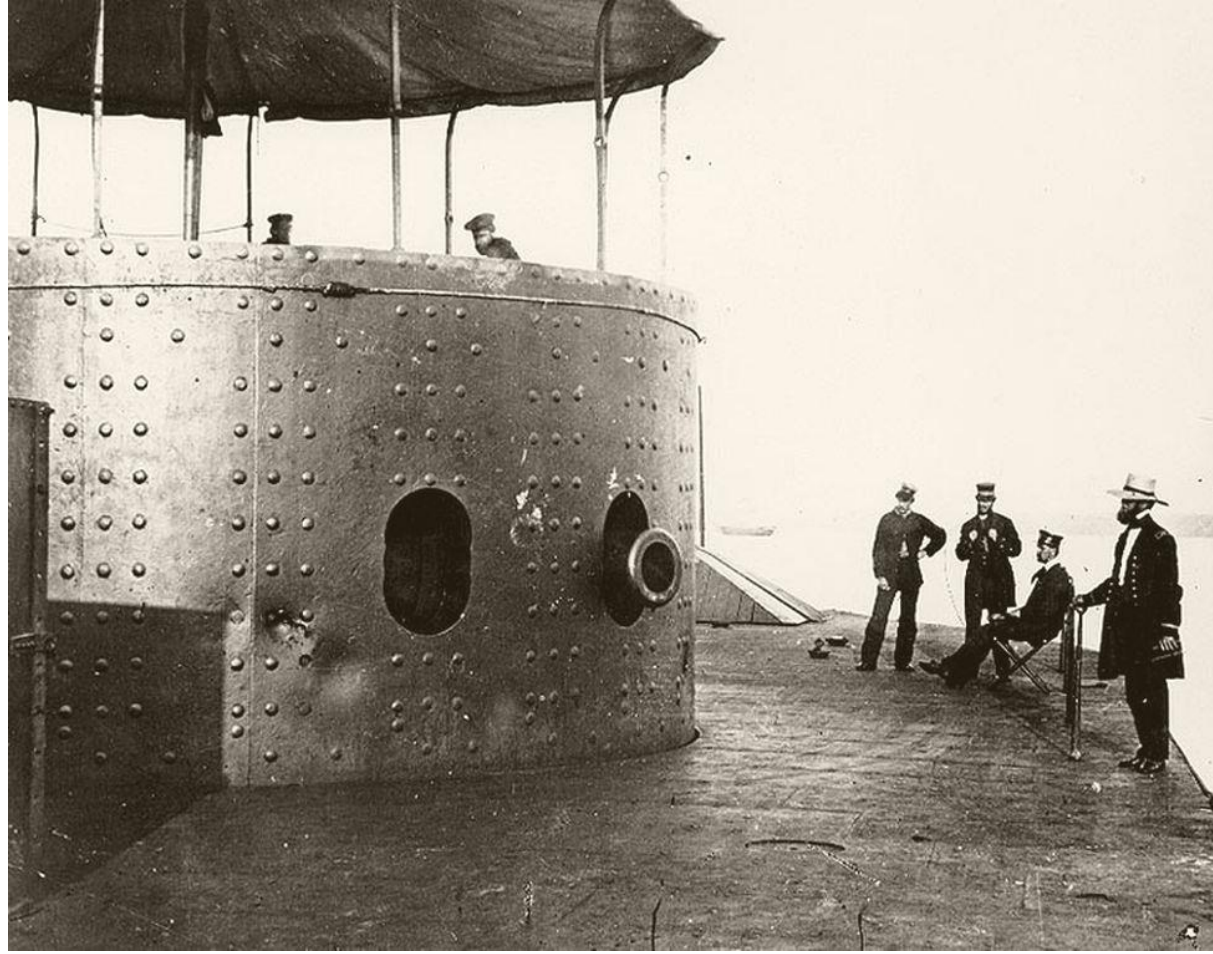
# Vive la Revolution!

- By the end of the 1700's the UK, France, the US etc. all had some sort of patent law for inventions and copyright law for creative works
- There is some theory that this led almost directly to the industrial revolution in the UK, that the ownership of ideas and their distribution meant inventors got paid to invent, so went about inventing.

# Bessemer Steel

- The 1855 Patent on Bessemer Steel is probably one of the most important Patents in history
- Bessemer process lets you make high quality steel in about 20 minutes, to make lower quality steel previous took several weeks, and cost about 7x as much

(TLDR: Blow air through molten iron to get rid of impurities).



# The 1800's

- Literacy matters, in the 1840's only about 65% of the population could both read and write in the UK (Canada was comparable but a bit worse).
- But by the end of the 1800's compulsory religious or state education had taken hold, and patents applied to both the home country and to distant colonies
- Many more people could create and benefit from IP law

# Enter Trademark

- Trademarks have been around in various forms for as long as people have been making things
- But Trademark in the modern sense – branding, really doesn't come into being until the late 1800's.
- Trademark in this sense was to be registered with the patent office

# Trademark

- Forging trademarks is not new
- Trademark lets you own terms in some context
- (E.g. King.com had a trademark on “Candy” as in Candy Crush as it applied to games).
- Trademark does not control a total monopoly on the use of words – I can say I work for Trent without permission of Trent.
- And Nestle can still advertise Candy

# End of the 1800's

- By the end of the 1800's when Europe particularly started to have mass printing across international borders they established the Berne Convention (1886)
- Berne made copyright international (in signatory countries). The US didn't sign until 1987. The UK didn't fully implement until 1988

# France vs the UK

- The British system is about the economic and property nature of IP
- French are about the rights of authors
- Berne tries to mash the two together – but they fundamentally envision the problem differently
- They are not necessarily mutually exclusive, just different.



- [https://www.youtube.com/watch?v=u6zAo\\_PMdBo](https://www.youtube.com/watch?v=u6zAo_PMdBo)
- Is that legal?



**Queen** 

@QueenWillRock

 [Follow](#)

An unauthorised use at the Republican Convention against our wishes - Queen

10:18 AM - 19 Jul 2016



19,002



24,509

- <https://www.buzzfeednews.com/article/claudiakoerner/queen-donald-trump-take-down-video-twitter>

# Moral Rights

- Queen has a performing rights organization (BMI) who actually owns the copyright to the song in the US (sort of). BMI can licence the song to whomever (and may have to for unrelated reasons)
- That is an economic right
- A moral right is that you can say “I don’t want politicians using my song” or whatever.
- (N.B. Queen are a British Band)

# Let's Get Ready To Rumble!

[REDACTED]  
Just received a memo from legal department re: usage of Michael Buffer's trademarked "Let's Get Ready To Rumble" 08:46

i've heard in the past that he goes after people for imitating it, using it 08:47

basically the memo is such some stations got hit recently and had to pay out 6 figures for each instance 08:48

that's pretty ridiculous 08:48

Buffer subscribes to a service that basically listens to all tv and radio stations and waits for the trademark to be used illegally 08:49

what a life 08:49

create a stupid phrase 08:49

then sue the pants off of anyone that tries to use it 08:49

the memo warns further that an illegal 'rendition' of his phrase exists on an ESPN Jock Jams CD. If you play that, you'll get caught 08:51

that's nuts 08:51

its not even him 08:52

[REDACTED]  
I feel I can share that part 08:56

Here is what he has trademarked 08:56

You may be familiar with the image of Michael Buffer in a tuxedo at the beginning of a boxing or other sporting event delivering his drawn-out, signature phrase "Let's Get Ready To Rumble." Mr. Buffer has

gone to great lengths to protect this intellectual property and has secured federally-registered trademarks for a family of marks including:

- ☐ "Let's Get Ready To Rumble,"
- ☐ "Get Ready To Rumble,"
- ☐ "Ready To Rumble,"
- ☐ "Ready 2 Rumble,"
- ☐ "Are You Ready To Rumble" and
- ☐ "Get Ready To Crumble."

The unlicensed use of these marks inevitably results in a demand letter from Mr. Buffer's counsel, followed by a financial settlement. 08:56

Get Ready to Crumble? Seriously? 08:57

# One Quirk of Berne

- Berne defined the simultaneous publishing of a copyrighted work as to mean within 30 days
- So something published Feb 1<sup>st</sup> in Canada and Feb 28<sup>th</sup> in the US are considered “simultaneously” for legal purposes under Berne.
- That has legal ramifications for which copyright law applies.
- (Otherwise the rules of the first country would apply)

# 20<sup>th</sup> Century

- Most of the 20<sup>th</sup> century was implementing Berne and then building on that with
- World Intellectual Property Organization (WIPO)
- Who are responsible for monitoring implementation of Berne and promoting the development of IP to encourage development.

# Who are not party to Berne

- The largest non members are South Sudan, Timor Leste (east Timor) and some islands no one cares about, (yet, we'll talk about them in a sec).
- The first two are just new countries, they will presumably be forced to get around to joining eventually
- The latter ones are a black hole of internet (and Internet) law
- .tv is for Tuvalu... is not a signatory



# 21<sup>st</sup> Century

- The Internet and cryptography have forced some changes on the law to cope with downloading, ownership etc.
- We'll come to some of it in detail, but relevantly to this course, the most recent revision of Canadian copyright law is from 2012, and a change to Audio recording rules in April 2015
- And now the USMCA (NAFTA v 1.1) and the TPP

# How are we going to talk about this?

- The EU has one common IP law framework, and then like everything else EU has thousands of pages of caveats and special exemptions.
- Canadian IP law is different from US IP law, although both broadly compliant with Berne the rules are different
- China, Korea, Japan and India all have their own rules

# Us

- We are going to look primarily at Canadian IP law
- And Globally relevant IP law
- But keep in mind that doing business internationally means complying with everyone. And that is a great deal more complicated than we have time for

# Three Types of IP law

- Copyright – Creative works
- Patent – Inventions
- Trademarks – Unique names, style etc.

# Copyright

- Copyright is the ownership of creative works
- Include any sort of writing, photography, cinematography
- It is shared among *rightsholders* when there are many 'authors' (producers and writers as well).

# Creation vs Distribution

- Many authors publish posthumously (after they are dead).
- Many also publish anonymously, either for safety reasons or for branding reasons
- Copyright can either start from when a work is created or when it is distributed
- Berne established terms based on the life of the author (so created/distributed doesn't matter)

# Posthumously

- Copyright for works published after death usually start their duration on publication.
- E.g. in Canada copyright is life of author + 50 years
- Posthumous publishing it is 50 years after the date of publication.
- So all those collections of unreleased music or videos or book chapters published 30 years after death keep the estate making money

# Corporate Copyright

- Corporations usually get a fixed term for copyright from publication
- Novels etc. usually the author retains copyright
- But say, technical manuals or work done for corporate publications are owned by the company
- Different universities have different IP rules as applying to both staff and students.



# Benefits

- In addition to control over the production and reproduction of copyrighted works there are some side benefits
- The rights of authors means you can control what your work is associated with

E.g. a Darth Vader Ad

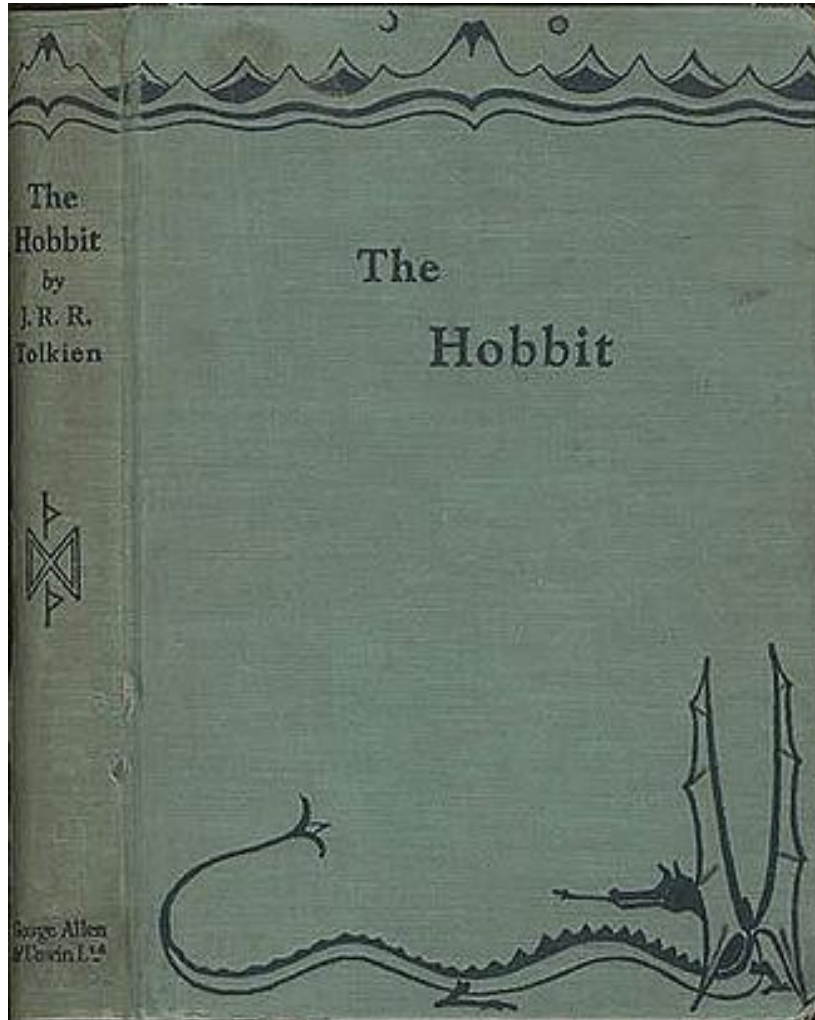
- <https://www.youtube.com/watch?v=1n6hf3adNqk>
- That Darth Vader ad- you have to have LucasFilm permission to use it.
- The music is copyright, the imagery of Darth Vader is going to be trademarked

# Establishment of a Copyright

- In most places (including Canada) Copyright is granted automatically and without registration
- But registration is useful for anything intended to be commercial as it creates a legal trail of when it was registered
- In the US prior to the 1980's copyright only existed on registered works

# Renewal

- The duration of a copyright is usually set it in law
- In US law copyright needed to be renewed to be maintained
- In countries where laws change there are some cases where copyrights need to be renewed to get the new protection
- (In Canada as far as I understand it this is only relevant to some edge cases of crown corporations)



- Copyright almost expired in 1998
- But then the US changed the law
- The Hobbit is under a different copyright than LOTR

# Scope (Canada)

- No distinction between professional or amateur
- Incomplete works are considered copyrighted from their creation
- Even if you do not directly copy from a work but take the ideas it's still copy infringement.
- Producing a similar piece of software from memory based on copyrighted work at a previous employer is legal in Ontario.

# Multiple authors

- Multiple authors are not treated as a corporation unless they were employed by a corporation and the terms of the contract made it the corporations
- Durations apply to the last surviving author
  - For A2 and your song you can largely ignore this bit

# Duration

- Berne lays out a 50 year term. Most of the EU and US have extended that to 70 years. (which is allowed)
- But Canada has not (sort of)
- The duration ends with calendar years rather than specific days.
- So a copyrighted performance or work becomes *public domain* after 50 years



# Duration and Jan 1 2013

- Back in the 1980's the EU forced many member states to change to a 70 year copyright format, including countries that were on 50 year formats
- This led to the odd circumstance of a number of works going back under copyright for up to 20 years.
- 2013 is the year everything 'caught back up' so to speak

# Public Domain

- Public Domain means you can take something modify it, use the characters, copy it, redistribute it etc. legally. Even commercially
- If you modify a work sufficiently you can get a new copyright on it (think all the modernizations of Shakespeare and Jane Austen)

# Publicly Available

- Making something publicly available and free\* does not mean it is public domain
- \* There are many free distribution agreements that do allow anything
- You can give something away for free for non commercial purposes and then demand money for commercial ones – this happens in software a lot.

# Public Domain

- The Hobbit is under copyright (Tolkien died in 1973)
- But! If you make substantive enough changes you get a new copyright (The Hobbit is a case of this, there are several versions with copyrights starting sometimes from the date of publication as it was done for a corporation, whereas LOTR is a personal copyright confused yet? Good).

# Did Han Shoot first?

- <http://www.youtube.com/watch?v=mu-TZpGdszA>

# George Lucas, Still Screwing his ex wife

- When he made the original Star Wars Lucas was married
- Then in 1983 he got divorced. Happens
- By making a new version of Star Wars he doesn't have to pay royalties on the old version to his now ex wife.
- Is that the reason why? Probably not, but these are the things you can do with 'remastering'.

# Fair Dealing

- While you cannot copy an entire work, nor can you resell copies of work you can make copies of all or part of a work under some circumstances – fair dealing
- Photocopying part of a book by a teacher to give to class is ok
- But this is evaluated on a case by case basis

# More on what is Legal

- Time shifting, or the recording of television shows, is now legal
- The law also legalizes format shifting, copying for private purposes, and the creation of backup copies.
- The law also includes a unique user generated content provision that establishes a legal safe harbour for creators of non-commercial user generated content



# Digital Locks

- rules that prohibit by-passing technological protections found on DVDs, software, and electronic books.
- There are some exceptions
  - protect personal information,
  - unlock a cell phone,
  - or access content if the person has a perceptual disability

# What is DRM?

- Digital Rights Management a form of digital locks
- The idea is to prevent you from copying or accessing your media without approved hardware
- It also prevents unapproved companies from making hardware/software
- This latter bit is the main thing. You cannot just make a blu ray or DVD player without a license.

# DRM collides legal systems

- Under US law since 1998 (the DMCA or digital millennium copyright act) circumvention of DRM is illegal except in very narrow circumstances
- If you as a Canadian develop tools to circumvent DRM for legal purposes in Canada, and post them your website in Canada, that may be illegal in the US and could get you arrested if you travel there.

# What about security researchers?

- Cryptoanalysis (finding fundamental security vulnerabilities in cryptographic systems)
- Security research (finding stuff that doesn't work and lets you get access)
- White hats – the good guys, Academics and industry researchers who try and make stuff better before bad guys find out what's wrong with it

# Private Copying

- Canada (and a few other places) levy fees on blank recording media. Blank CD's have a 29cent fee per blank that is paid back to a broad collection of copyright owners
- There have been suggestions to add this to various MP3 players, hard disk drives etc.
- These rules created an odd black box in the law for 15 years – it was illegal to make those copies – but you were paying a levy to do so.

# Could Copyright have broken the Internet?

- Open up google news sri. Don't argue with yourself, do it. Now. I said now.
- Notice that Google News is Links to other peoples headlines.
- The EU actually has somewhat more restrictive copyright rules than the US or Canada
- Feb 13 2014 the EU top court ruled hyperlinking is \*not\* infringement. Copying is well, copying. Linking is pointing to someone else

# Other implications

- The question of 'used' digital property is as yet unsettled.
- The EU has ruled that you must allow, for example, used game sales (even if they were download only). To which the vendors have said 'nah'.
- Digital resale and DRM are not trivial questions.

# German rules

- In Germany you can compel your ex to delete naked pictures of you
- What does that mean for photo backup?
- What does that do for travelling?
- I don't have answers but this is an interesting sub area of copyright law



- Got here fall 2019

# Libraries and Archives

- Later in this course we're going to talk about game design
- What if I wanted to have us experience say the history of multiplayer games?
- Some of those games have been turned off and don't work
- There is a legitimate case for preservation and research, yet copyright law prevents much of that

# Software Licences

Software licenses and rights granted in context of the copyright according to [Mark Webbink](#).<sup>[1]</sup> Expanded by freeware and sublicensing.

Rights granted ⇅	Public domain ⇅	Non-protective FOSS license (e.g. BSD license) ⇅	Protective FOSS license (e.g. GPL) ⇅	Freeware/Shareware/Freemium ⇅	Proprietary license ⇅	Trade secret ⇅
Copyright retained	No	Yes	Yes	Yes	Yes	Yes
Right to perform	Yes	Yes	Yes	Yes	Yes	No
Right to display	Yes	Yes	Yes	Yes	Yes	No
Right to copy	Yes	Yes	Yes	Often	No	No
Right to modify	Yes	Yes	Yes	No	No	No
Right to distribute	Yes	Yes, under same license	Yes, under same license	Often	No	No
Right to sublicense	Yes	Yes	No	No	No	No
Example software	SQLite, ImageJ	Apache web server, ToyBox	Linux kernel, GIMP	Irfanview, Winamp	Windows, Half-Life 2	Server-side World of Warcraft

# Summary

- Copyright is the ownership of creative works
- It combines both moral and economic rights, not always in equal proportion

# Patents

- Patents are the exclusive right of the patent holder to make use of and or sell the invention in the patent (assuming the patent holds as valid)
- Canadian patents prior to 1989 last 17 years after the patent was *issued* after 1989 its 20 years after the patent application was *filed*.

# Filing

- There are two fundamentally different patent systems in the world
- First to invent
- First to file
- They mean pretty much what they say.
- Up until this year the US was on the first system, everyone sane was on the second.

# First to be fair?

- While in theory first to invent should be more fair it creates some problems
- Proving who invented first is was a monstrously difficult task that involves a lot of lawyering
- It also meant a lot of delays in the application process (hence the phrase 'patent pending').
- Delays averaged well over a year

# Patent Criteria

- You can't just make a patent for anything
- It must meet a test – novelty, non-obviousness and utility



# Novelty

- You can't patent something already patented (though it happens a lot, later patents are considered invalid)
- You can't patent something publicly disclosed anywhere else either (private disclosure is ok)
- This is called Prior Art
- We'll come back to prior art in design patents

# Novelty continued

- The exact thing must be described
- What it does must be described
- Someone trying to solve the same problem would recognize this as a solution
- Should be written such that an ordinary person can understand (good luck with that)

# A recent bizarre patent

- Patent against a white background – Amazon, March 2014
- That's it really. They patented taking a picture against a white background.
- US Patent 8,676,045
- Patent spent 3 years in the system to be approved

# Non Obviousness

- If any reasonably skilled technician facing the same problem could come up with the same solution it's not patentable
- It must be obviously different from other solutions to the same problem

# Utility

- It has to do something..... It's a fairly low bar.

# Design Patents

- In Canada these are Called “industrial designs” the US they are Design patents

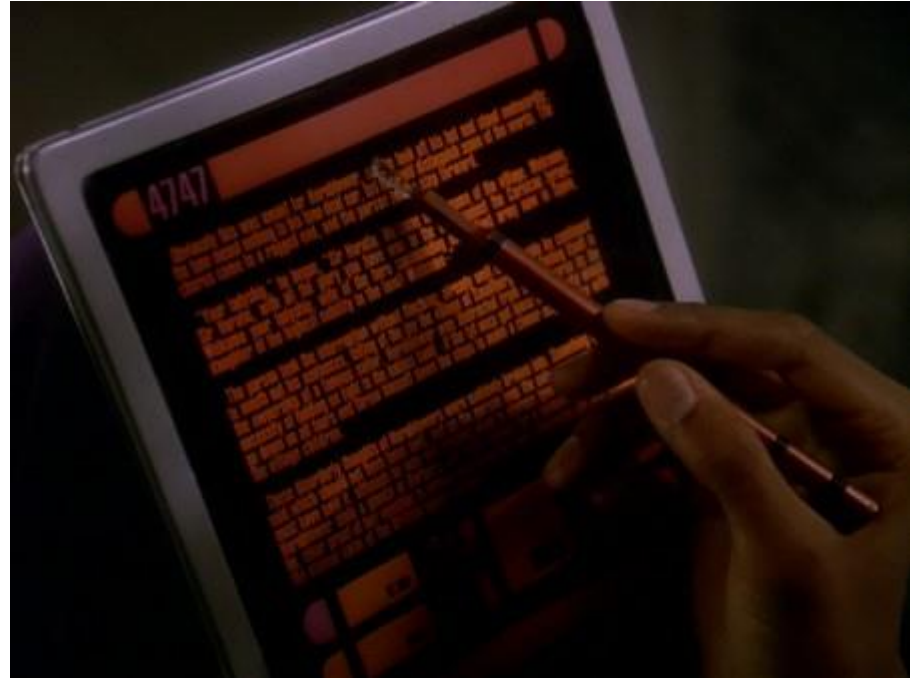
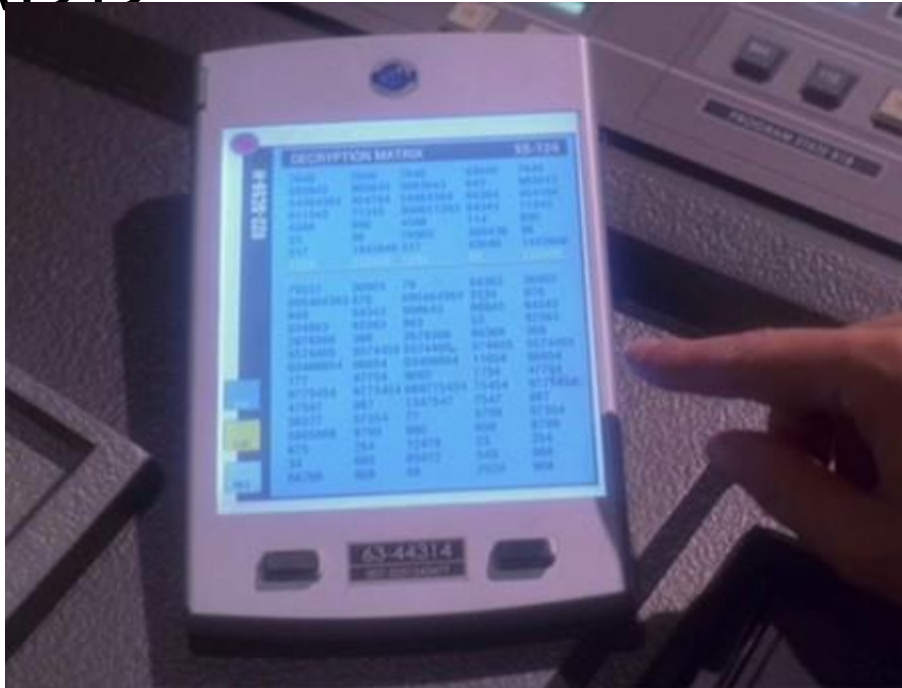
- -----→
- Patented
- (well some)



What is this?



# PADD



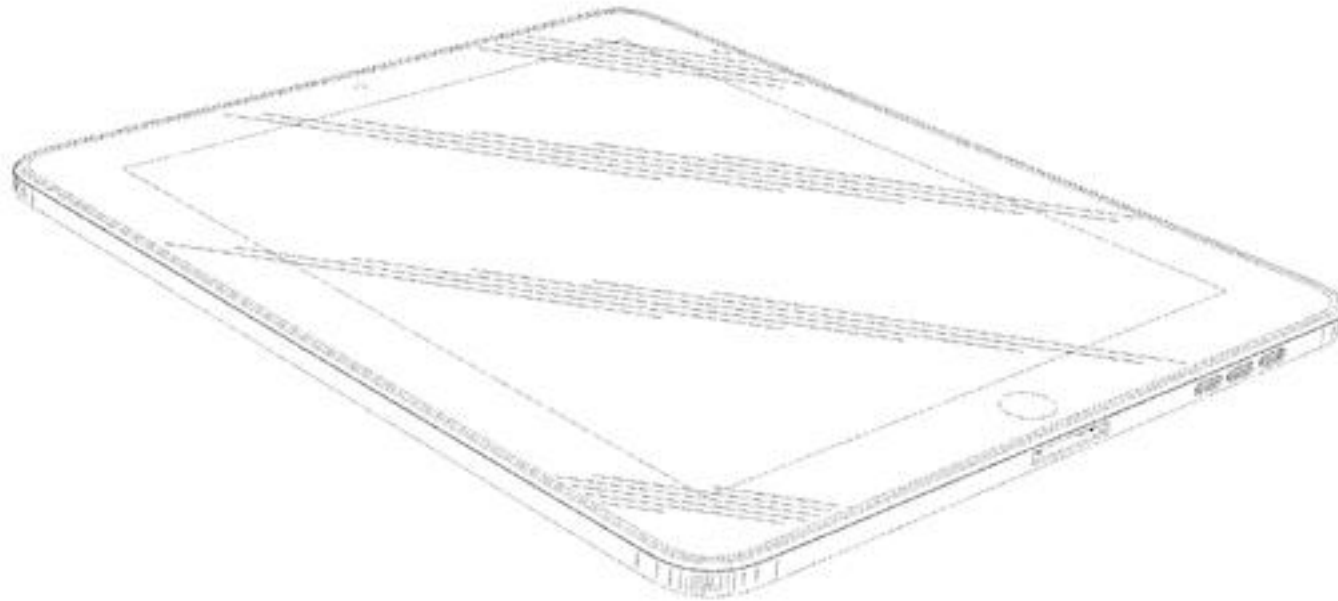


# iPad vs Galaxy Tab



FRESHFIELDS BRUCKHAUS DERINGER

# Rounded corners OUTRAGEOUS!



*FIG. 1*

Note the Solid not dashed lines – the solid line is around the shape of the device

# Prior Art

- Patenting the iconic look of something is kind of quirky
- In many respects it behaves legally like regular patent law – you get an exclusive right to the iconic style of something.
- But that style doesn't need to be novel, although it's supposed to be non-obvious and unique

# Prior Art Continued

- With invention patents prior art requires a prior invention that does the same thing
- With design patents prior art doesn't even need to be a real thing
- But well...
- You can patent the wheel sometimes

# Patents are national problems

- While there are some international patent agreements it isn't universal
- So something could be patented in the US, that infringes a Patent in Japan and is infringed on in the EU.

# Patents - Cars

- Cars, and car technologies are classic examples of regular patents
- Heated seats, heated steering wheels
- All sort of braking technology, roll cages etc.
- Windshield wipers (single arm, double arm, wiper fluid spray systems)
- All patented
- Most people can reasonably understand those as inventions
- Seat belts – both shoulder strap and regular were patented but made freely available.

# Patents - Pharmaceuticals

- Pharmaceuticals, both the drugs themselves and the processes to make them in quantity are patentable
- But then.. Patents grant a monopoly.
- What if you *\*need\** a cancer drug, or you, well, die? (or HIV or Malaria or the like)
- The drug company can charge you an arbitrarily large amount of money

Note: Not this jackass



Martin Shkreli speaking to US television news channel CNBC *CNBC*

The pharmaceuticals CEO that raised the cost of a drug used by Aids sufferers by more than 5,000 per cent also hiked the price of medication taken by children for a rare kidney disease, it has emerged.



# WIPO and WTO

- The World Trade Organization and WIPO require certain types of patents be available internationally
- Including drugs
- Violating these patents could lead to trade sanctions

# 1995

- The year the AIDS crisis peaked in the US
- Prior to 1995 AIDS was a death sentence, and it was akin to being a leper, no one wanted to be anywhere near you, to touch you, to touch your stuff etc.
- Anyone know who that guy is?
- In 1992 people gave him 3-4 years
- He's still alive (as of 2018)



# AIDS

- AIDS drugs cost around 10k per person per year. They aren't a cure, they're a therapy to suppress the effect.
- Aids spread like wildfire through Africa (for a lot of reasons beyond the scope of this course)
- But 10k/year is simply not possible for someone in most of Africa. So people died. Millions have died
- (AIDS peaked in 2004, and it's now down to less than a million deaths per year).

# Cancer

- Two cancer drugs nexavar (Bayer) and Gleevec (Novartis) have had their patents stripped/blocked in India
- This is because the government of India feels it cannot provide healthcare to poor citizens at the prices the two (German) Companies are charging

# The right answer?

- Honestly, I don't have one
- Invention costs money, and the reason we have all these rules is to incentivize future inventions.
- But you can't have something that costs pennies to duplicate be denied to people who will die without it.
- Somewhat like copyright, it's not even practical to try and enforce that on individuals

# Government Ownership of Patents

- Governments used to buy patents for public good (or tried to anyway)
- This sort of makes sense – new vaccine, rather than you holding a patent and denying it to people the government can give you a one off payment with special rules

# Software Patents

- I think we can reasonably agree there's a lot of invention in software, or at least some software.
- But you can't just duplicate software under copyright, because as a practical matter all it is words and math (albeit in a specifically defined language)

# Software as an invention

- Can you patent a mathematical equation?
- Computer programs are just big mathematical equations written in a funky language
- The legal answer is: Yes. (in some countries)
- The philosophical question is: should you be able to?
- This has effects on things like interoperability and innovation



# Creative labs and Doom3

- Creative labs is a big company in the audio business
- They patented an audio position algorithm that is reasonably fast
- They then licensed it (for free) to id software in Doom3
- id being the goody goody types that they are wanted to release doom3 source for free.
- And had to rewrite the audio to deal with the patent.

# Software

- Let me re-iterate a point on non- obviousness
- If any reasonably skilled technician facing the same problem could come up with the same solution it's not patentable
- This is where, in my opinion, software patents cause the most grief
- Software patents on formats (mp3, gif etc) mean that you end up with a lot of duplication

# Duplication

- Not copying. But multiple solutions of similar quality to the same technical problem.
- This is because there are only so many ways that actually make sense.
- So we have multiple codecs that do basically the same thing... and are mutually incompatible

# Patents and the Windows File System

- (N.B. Windows file system is not a proper name or technical term here)
- The File system used in windows for the last 30 years has evolved. But it's basically covered by patents
- If you want something to be readable in a windows file format you have to pay Microsoft a license.
- So MS collects about 5 bucks per android device, so you can actually copy files to and from it.

# DVD



## Windows DVD Player

Microsoft Corporation

★★★★★ 183

\$17.39

Buy

Redeem a code

Share

videolan, a project and a **non-profit organization**.



## VLC media player

VLC is a free and open source cross-platform multimedia player and framework that plays most multimedia files as well as DVDs, Audio CDs, VCDs, and various streaming protocols.

Download VLC

Version 2.2.6 • Windows • 28 MB  
85,780,405 downloads so far



# Patents are valuable

- The big thing with Patents is that they are valuable pieces of paper.
- They collect revenue from licensing even if the inventor is gone
- And they lock competitors out of the market
- Nortel was basically scavenged over for patents, and companies have to have patent strategies to fight with each other.

# Nortel patents sold for \$4.5bn

Apple, Microsoft, Sony and RIM part of consortium that bought patent portfolio from bankrupt telecoms company Nortel Networks



📷 Apple and RIM are part of a consortium that bought a portfolio of communications patents from Nortel Networks. Photograph: Paul Sakuma/AP

Rockstar Consortium — a group of companies that includes Apple, BlackBerry, Ericsson, Microsoft and Sony — has agreed to sell roughly 4,000 of the patents it bought from Nortel during its bankruptcy auction to RPX Corp. for \$900 million (U.S.).

RPX, which buys up patents to help companies reduce their risk of being sued for patent infringement, will make the purchase through its subsidiary, RPX Clearinghouse.

Rockstar originally bought around 6,000 patents from the Nortel bankruptcy sale for \$4.5 billion. About 2,000 of those patents were distributed among various consortium members and are not part of the sale to RPX.



# Trademark

- Trademark is functionally very much like a design patent but for a different purpose and duration
- Most trademarks are registered with the government ®. A non registered mark ™
- This allows you exclusive use of those symbols.
- Trademarks don't exactly expire, ever. Unless you don't use them long enough (5 years) or pay to renew them

# Trademark and Fraud

- The main point of trademarks started out as a unique identifier of manufacturer
- That's still kind of what it is
- The key is that you can't pretend your work is someone else's by using their trademarks.

# Genericized Trademark

- Fridge
- Kleenex
- Zeppelin
- We're starting to see some of this with 'iPad' for 'slate' (or tablet) and 'Google' for Internet search

# Limits

- I can talk about Trent, or Coca cola or Tarzan in class
- Even though they are active trademarks,
- I just can't defraud people into believing my cola is Coca Cola or that my horrible scrawls are authorized Tarzan productions

# Tarzan?

- Fictional Story of a son of a British Lord and Lady marooned in Africa. The boy was raised by Great Apes and tries to re-join civilization
- Published in 1912
- While copyright is since expired (in some places) the Tarzan trademark manages to endure it is held by a corporation created by the original author.

# Disney and Copyright

- One of the main motivators of this sort of thing has been Disney
- Disney has the original cartoons of Walt Disney
- And doesn't want to share
- Though they could likely still lay claim to the trademarked images of most of the Cartoon characters.

# Other

- Plants, Databases and semiconductor topography are pretty much self explanatory in what they are
- The nuances of rules – particularly on databases are really detail specific and I'm not sure it would do much good.
- If you make a non trivial database you can own a copyright on the database.

# Culture

- The EU (and a few other places) allow some of these rules to apply to various aspects of Culture, French food, Italian food, wines from various regions



# Big Media

- For this course we're really interested in books, music, movies and video games
- While musicians can collect concert fees, and to some degree actors can make theatre
- How do authors and video game makers make money?
- They sell products, they sell ads on top of products, or they ask for charity (kickstarter)
- But people like downloading things