

Intellectual property

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Types of intellectual property

- Copyright, patents, trademarks.
- Computer programs.
- Entertainment:
 - movies, music, games.
- Biological material (example: genes).
- Inventions, but not discoveries.
- Implementations, but not ideas.

Moral justifications for private property

- Convention.
- Natural Law/Rights/Justice:
 - Effort: Labor theory of property, home stead principle
 - As long as “[...] there is enough, and as good, left in common for others.” (John Locke)
 - Property legitimate when it emerges in such a way as not to harm anyone. (Comte)
 - Extension of the individual. (Haegel)
 - Scarcity: to avoid tragedy of commons (overuse of limited resource).
- “Capitalist” Utilitarian/Pragmatic Argument.
- Private property: excludable and rival.

“Liberal” Utilitarian Argument

- Intellectual property optimizes social utility.
- IP rights only granted when they are necessary to encourage invention (limited in time and scope).
- Ratio of fixed cost to marginal cost much higher for information than goods → competition drives prices to marginal cost.
- Patent law should protect inventions and not discoveries.
- Copyright law protects only implementations and not ideas.
- IP laws create artificial scarcity.
- Intellectual property limited exception to free market competition.

- Disadvantages if creators are overcompensated:
 - Distorted markets: static inefficiencies.
 - Disablement of other creators.
 - Rent seeking behavior: socially wasteful.
 - Weaker incentive for creativity (example: Verdi).

Intellectual property as capital

Capital

- Know-how.
- Ideas.
- Methodologies.
- Tools.
- Examples:
 - Internet.
 - Operating systems.

Consumables

- Implementations.
- Service.
- Availability.
- Usability.
- Examples:
 - Application development.
 - Courses.

Intellectual property as private property?

- Arguments against ownership of intellectual capital:
 - Property holders benefit may not coincide with benefit to other people or to society at large.
 - Difference between value and utility.
 - Usufruct.
- Specialty of IP:
 - Information has characteristics of a public good:
 - Consumed without depletion (copyright infringement is not theft).
 - Hard to identify those who infringe.
 - Hard to prevent infringement.
 - Very expensive enforcement by state.
 - Author/Creator builds on community knowledge.
 - Right to education.
 - Freedom of knowledge.
 - Every argument in favour of public libraries is in favour of pirating books. (Forcehimes)
 - Patents and copyrights on discoveries and ideas have become common.
 - IP benefit publisher but not the individual creator.

Biological patents

Protects material and intellectual property - regulated by the law.

- Biological related technology:
 - Software.
 - Hardware, e.g. pipetting robots.
- Biological products:
 - Genetically modified organisms (GMO), e.g. Monsanto soybean seed with resistance to the pesticide Roundup.
- Genetic material:
 - More than 4300 human gene patterns (20% of the human genome) have been claimed in last 20 years (USA).



Gene patents

- *BRCA1* and *BRCA2*
 - Tumour suppressor genes.
 - Mutations give an 11 times increased risk for breast cancer and a 22 times increased risk for ovarian cancer.

- The *BRCA1* gene
 - Co-discovered by five universities and Myriad Genetics.
 - Published in Science 1990.

- Myriad Genetics, Inc.
 - Founded 1991.
 - *BRCA2* gene was discovered in 1994.
 - Patented the genes for 20 years in 1994 and 1995.
 - Developed clinical test for the heredity cancers, 1996.
 - Selling these gene test for about 3000 US dollars.
 - The only lab in USA to test for mutation in *BRCA1* or *BRCA2*.

Should genes be patented?

- Criticisms to gene patent:
 - Researchers gets inhibited in their work.
- Criticisms toward Myriad Genetics:
 - High prices.
 - Inability to get second opinions from other diagnostic labs.
- Association for Molecular Pathology took Myriad Genetics to court:
 - Between 2010-2013 several of the 23 patents were ruled invalid.
 - US supreme court (June 2013): a biological gene cannot be patented, but an artificial gene can.
- Myriad has been fighting in courts in Australia for patents on the *BRCA* genes.

Music file sharing

- Fallacies galore!
- Pirates make money off of others' content.
- Artists lose control over distribution.
- “Something in unlimited supply can't be stolen.” (Karl Sigfrid, Moderaterna Sthlm)
- But what about payment?
 - People pay what they think things are worth.
 - Giving incentive for payment often effective.

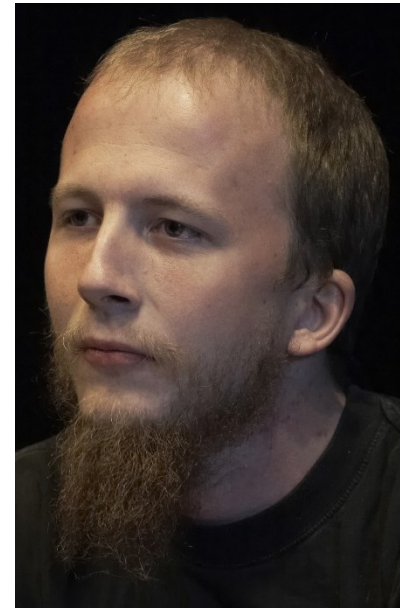
Arguments for file sharing

- Correlation: file sharing ↔ direct music sales.
- File sharing → increased artist visibility.
- Threat to music companies:
 - Losing distribution monopoly.
 - Losing money because of direct sales.
- Counter-measures:
 - False ad campaigns.
 - Scare tactics.
 - Corrupting judicial systems. (ex Pirate Bay)

Questions?



Is currently studying political science at Oslo university, and writing a book.



Has not been convicted. Is held in solitary confinement since June 2013, not allowed any reading material.