Computers & Laws I:
Can Property Be Intellectual?

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Before we start...

- Today's lecture is quite heavily loaded with personal opinions of the lecturer. These are meant to stimulate thinking about the issue and awareness of multiple viewpoints, not to be parroted 'for the grade'! U53 UR H34D, D00D…
- In any case, it pays to know different standpoints
- Note: politically, this topic will see strange bedfellows (example: we could find Libertarians and Communists on the same side, Conservatives exist on both sides etc)

“What’s the point?”

- “Hey – we are IT security people, we don’t need that legal BS!”
- 1. **The level of commoners** (saying it in That Weird Old Language, as it ~~sounds better~~ is actually coming from the Roman law:
- *Pacta sunt servanda* - contracts/treaties should be kept
- *Ignorantia juris non excusat* – being ignorant in laws does not excuse noncompliance (or more bluntly: no free passes for stupid people)
- 2. **The level of IT specialists** – copyright, licenses, contracts, patents (the latter are controversial)
- Said before: if bosses see a sheep, they’ll want to fleece ~~it~~ you

Intellectual property?

- As defined by WIPO (World Intellectual Property Organization) – a legal umbrella term to cover all results of human creativity, such as
  - Works of literature, art and science
  - Recordings, broadcasts, performances
  - Scientific discoveries
  - Industrial design
  - Trade and service marks
  - Protection against unfair competition
  - ...

“Two kilograms of dreams, please!”

- Defined as *immaterial* property, yet has many qualities similar to *material* objects (can be bought and sold, rented, given away etc)
- Cannot be measured by physical parametres
- The main problem resulting from the abovesaid – *objective factors* (quality) are often less important than the *subjective and artificial factors* surrounding the object (politics, business, international relations, corruption…)
- At the end of the day, the one with better lawyers wins
- Better lawyers are expensive
- Money talks, BS walks...

More differences

- IP rights are
  - **temporary** – the duration should be a sensible compromise between private and public interests, yet usually it is not
  - **territorial** – in principle, every country should be able to establish and enforce its own rules. In practice, this is the privilege of large and powerful ones

The WIPO IP system

- Industrial property
  - Patent
  - Utility model (small patent)
  - Industrial design
  - Trade mark
  - Trade secret
- License
- Copyright

Patent

- A temporary monopoly granted to an inventor by a special organization
- Fixed deadline – typically 20 years
- Criteria;
  - Novelty
  - (Practical) applicability
- Main problem: does not support production, but rather stifles competition (and as a result can stall the whole invention)
- Blocking patents have long history (e.g. AM vs FM radio, incandescent vs luminescent lights)

Utility model

- a.k.a. ‘small patent’
- Meant for prototypes or intermediate results
- Lower requirements
- Shorter deadline – typically 10 years
- Problems are similar to those at patents

Industrial design

- Meant to protect from imitating a product's looks or design (not just functional)
- In Europe, can be registered for 25 years (by 5 at a time)
- Main problem: ambiguity:
  - How different is *enough*?
  - *Who decides?* Designer vs engineer vs lawyer vs clerk (another company studying an elephant!)

Trade mark

- A word, symbol or image that distinguishes a product from other, similar ones
- Prevents others from using the same trade mark, but does not prevent doing the same thing under a different one
- Main problems: ambiguity and effectiveness (“Pad” vs “Tab” is a good example)

Two weird examples

TAFKAP

redhat

CentOS

PNAFLV

Trade secret

- Information which has value only when kept secret
- No fixed deadline!
- Protected by law until:
  - declared not secret anymore
  - derived from a final product (can be contested)
  - found out independently
- In any case, the genie will be out of the bottle!
- Problem: wilful violation is hard to prove (and in case of software, almost impossible)

License

- Essentially, an usage permit by an author/owner
- In IT, mostly in the form of EULA (*End-User License Agreement*) – the owner retains all control and dictates all circumstances
- Main problems: legalistic, ambiguous and incomprehensible to commoners

Copyright

- Applies to works of literature, art and science
- Belongs to the author by default
- Applies automatically at creation
- Must have a tangible form (not just an idea)
- Long deadlines – nowadays up to 90-95 years after the death of the author

- Main problems: not so much with copyright itself but rather the next steps

Copyright: two schools

- Copyright actually defines two kinds of rights:
  - **Moral rights**: the fact of authorship
  - **Material/financial** rights: allow making money
- Two different understandings:
  - **Continental European**: derived from civil/Roman law; moral rights are tied to the author (cannot give up the authorship)
  - **Anglo-American**: stems from English Common Law; all rights can be given away => possibility for public domain; fair use well-defined

Prehistory

- Moral rights are a very old category
- Material rights were quite irrelevant until the advent of industrial copying
- Actually, most of the famous authors did not sell their creation by unit – they were employed by other people. Examples:
  - Shakespeare
  - Bach
  - Händel
  - Mozart

The Age of Printing

- Gutenberg Bible 1455
- Johann Fust vs Gutenberg
- The movable type enabled radically larger scale of copying
- Martin Luther vs publishers – some posed as authors, some did also alter his writings
  - (Martin should have used Creative Commons!)

The Statute of Anne 1709/1710

- The first piece of legislation dedicated to copyright
- NB! The original idea was to control not multiplication as such, but to catch printers releasing explosive materials (e.g. pamphlets against the King)
- A very important provision – nine copies of all printed material was to be sent to libraries

The U.S. Copyright Act 1790 and the Berne Convention

- The U.S. Copyright Act from 1790
  - set the duration of copyright to 14 + 14 years
  - did not cover foreign authors
- The Berne Convention for the Protection of Literary and Artistic Works was signed by
  - the UK in 1887
  - the US only in 1988
- Last more substantial changes (amendments) from September 28, 1979 - two years before the first IBM PC

Duration (period of validity)

- Copyright – 70-100 years after the death of the author
- Patent – 20 years
- Small patent (utility model) – 10 years
- Trade secret – no fixed deadline
- Trade mark – during active use (re-registration possibility)

But what went wrong?

- The movie *The Gods Must Be Crazy*: the Coke bottle as Pandora's Box
- Scarcity: a meme?
- Information: a resource that spreads only by copying
- The medium is going cheaper and cheaper, the real value is in content

Some ‘WTF-moments’

- A certain Mr Brilliant
- Charles M. Gentile vs the Cleveland Rock and Roll Hall of Fame Museum
- Church of Scientology
- Robert Kunstadt: patent the sports techniques!
- NBA.com – only we can report the game
- The Shetland Times: no linking without permission (NB! The issue has recently re-surfaced in EU!)

The Digital Dilemma

- How not to throw the baby out along with the bathing water?

- Borrowing should be legal – the main point of public libraries
- How to make people buy more than one item?

Internet has changed the game

- Digital media has radically simplified **copying**
- Networks have radically changed **distribution**
- The Web has radically changed **publication**

Intermezzo: the Tinfoil Revolution

- In the beginning of 2012, public protests spanned Europe
- ACTA – Anti-Counterfeit Trade Agreement
- The global push towards the U.S. model, and the first agreement of its type to be classified (substantial parts)
- Leaked in 2008, finalized in late 2011
- The major point for IT and Internet: ISP-s would have been held responsible for license violations in their networks – at the same time, no mechanism was proposed to prevent excessive snooping and censorship
- In January 2012, it was almost passed in Europe – 22 countries signed it. But then the Poles and Swedes started to think

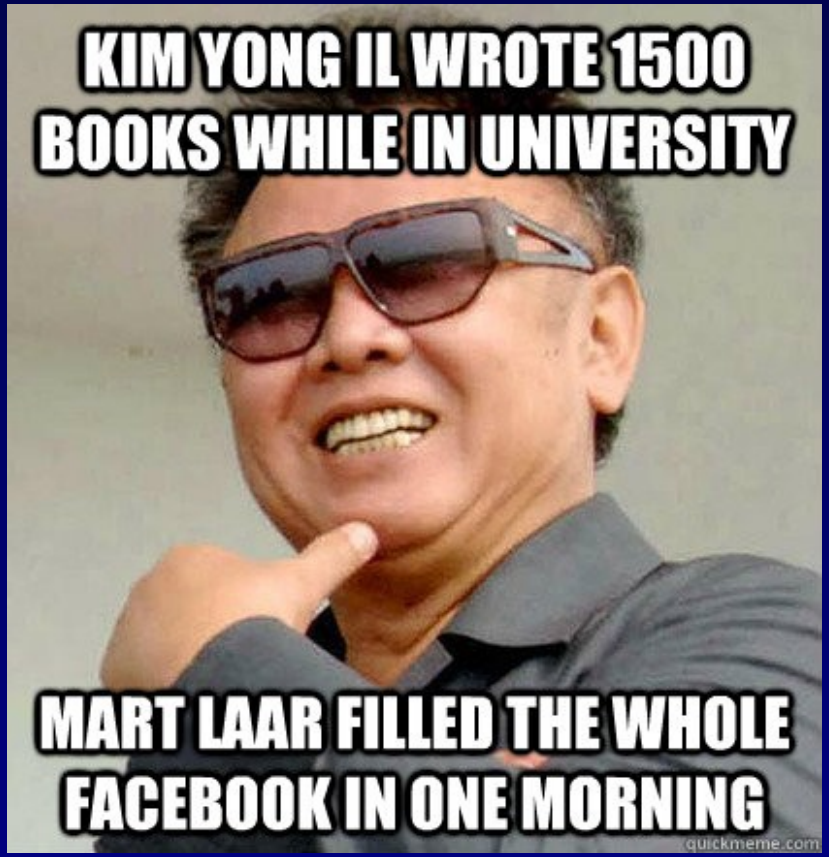
“Meanwhile, in another galaxy” (sort of)

- … or actually Estonia
- The ruling Reform Party and the Prime Minister Andrus Ansip strived to pass ACTA even without involving the Parliament
- … eventually they still had to
- On February 8, Mr Ansip debuted as a stand-up comedian in the Parliament…
- “You know, those arguing against it have eaten **seeds** – and not the ones that we sow to fields. Sometimes in these cases it has been told to help when **tinfoil** is inserted in the caps. Maybe **jacuzzi** can also help. I don't know what could help them, but they should seek assistance from somewhere.”

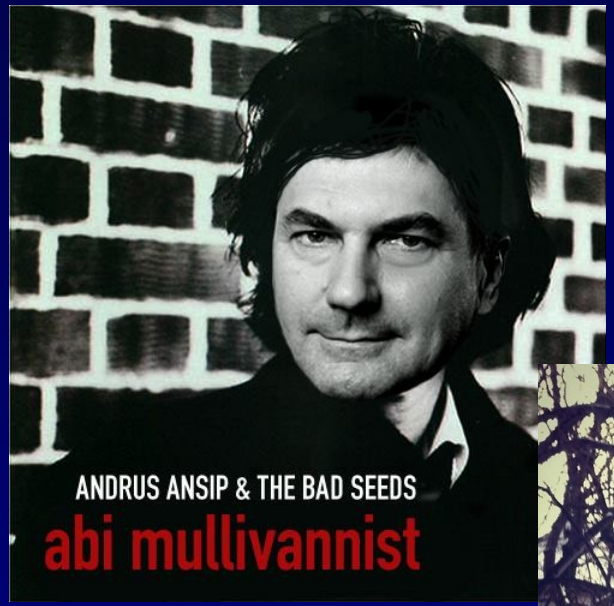
Lesson No 1 for politicians: do not piss off your own electorate!

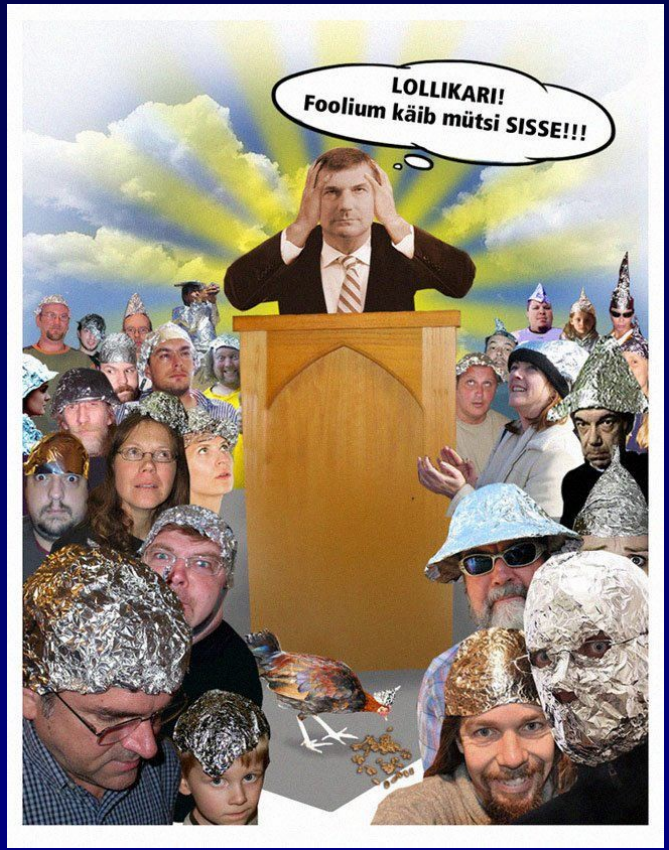
- February 11, 2012 – thousands of protesters (most of them wearing tinfoil...) in Tallinn and Tartu. Most importantly, the majority of them were likely the electorate of the Reform Party (one of the slogans: “See ya at the elections, suckers!”)
- “Ansip's ACTA”, a crazy piece of techno mix by DJ Tinfoil - https://www.youtube.com/watch?v=J2DmWLzkvLU
- The avalanche of Web memes - it actually started a week earlier with ...

this


KIM YONG IL WROTE 1500 BOOKS WHILE IN UNIVERSITY
MART LAAR FILLED THE WHOLE FACEBOOK IN ONE MORNING
quickmeme.com

...and then those





Outcome

- In July, the European Parliament decides to reject ACTA (39 for, 478 against, 165 abstained)
- Yet the show is far from being over (CETA, TTIP)

Seeking alternatives

- Free and open-source software
- Free content => Free Culture
- Open Access

A copyright reform?

- Rick Falkvinge and Christian Engström 2012:
- Moral Rights Unchanged
- Free Non-Commercial Sharing
- 20 Years Of Commercial Monopoly
- Registration After 5 Years
- Free Sampling
- A Ban on DRM

To sum it up: 3 big problems with IP

- The Rabbit's Friends and Relatives
- The Old Man Paragraph vs the Internet Kid
- The Almighty Patent Clerk: Omniscience required

Conclusion

- A lot of diverse matters
- “Intellectual property” is too wide a term lumping together too many very different things
- The choice is whether to keep playing the ostrich (and let the system slowly die) or reform it
- NB! To be able to bring on change, we have to know the current system well

For additional reading

- *Free Culture* by Larry Lessig
- *Information Liberation* by Brian Martin
- *Copy, Rip, Burn* by David Berry
- *Freedom of Expression* by Kembrew McLeod
- *The Cluetrain Manifesto* by Christopher Locke
- ...

That’s it for today

(but this topic will go on next time!)