Internet Law

S-38.3042 Seminar on Networking Business

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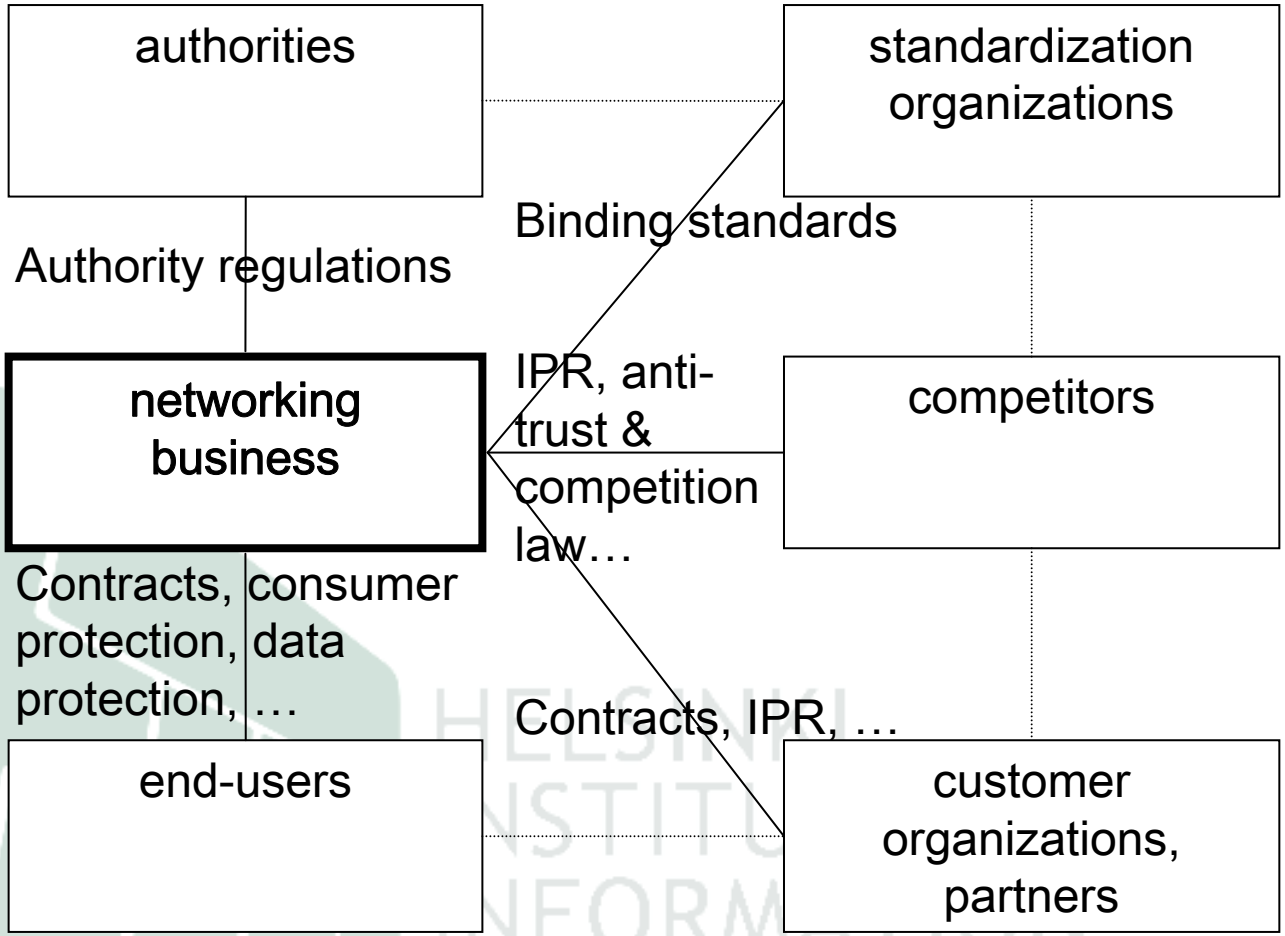
Target

- This lecture is to supplement ICT Regulation Toolkit
  - Especially, underline emerging issues that are less emphasized in the Toolkit
- After this lecture, you should
  - Have an overall picture on current legal issues related to networking business
  - Know the elementaries of some of the important legal fields esp. data protection, copyright
  - Know how to find more information

Networking Business Legal and Regulatory Framework



Development

- Traditionally telecom has been dominated by governmental authorities
  - e.g. in Finland Posti- ja telehallitus/laitos
  - regulative framework, infrastructure, and operations were in governmental control
- In the 1980's and 1990's, telecom was liberated and opened to competition, and governmental operators were commercialized
  - great pressure to regulate competition to avoid harmful effects
  - in parallel, esp. European integration is increasing regulation

Deregulation?

Old-time regulator: → ● ”This is your spot!”

New regulator: → ”You are free to operate in this space.”

- Deregulation has actually led to greater amount of regulations since it is more difficult to define the complex, multidimensional space in which the actors may operate than it used to be to define the spot in which the actor had to stay.

Current trends

- Liberation and deregulation
- From operator-centric towards more colorful service-providing
- Technology towards ubiquitous computing (ubicomp), ambient intelligence (AmI), or pervasive computing, and increasingly distributed solutions
- European Union is taking increasingly strong position
  - European Telecom Market Authority?

Forthcoming development

- Internet and other open technologies will become more important
  - E.g. VoIP is challenging traditional telephony
- Liberation is likely to continue
  - thus competition and anti-trust law, price regulation, marketing rules etc. will be important also in the future
- However, new trends bring out new legal challenges
- How to find out which legal areas will be important in networking business?

How to study future challenges?

- *Question*: How to study legal challenges in the future environments
  - in our case, legal challenges related to networking business
- *Problem*: hardly possible to study future challenges using conventional methods of legal sciences
  - jurisprudence looks “backward”
- *Solution*: combine legal science with other fields of science, esp. futures research, techno-economics, user research, and social sciences
- To analyse future legal challenges, I have gone through a large number of scenarios

Conclusions from the scenarios

- The most challenging legal areas that the emerging technologies will bring out:
  - Privacy and data protection law
  - Intellectual property rights, especially copyright
  - Contract law and consumer protection
- Other legal areas also affected, but those above will be the most important

Authority regulation

- E.g. network numbers and addresses, radio spectrum
- Currently for example: (EC Cocom, RSC, …)
  - Mobile TV, DVB-H standards
  - European telephony numbering space
  - Mobile communications services onboard aircraft
  - Mobile satellite services
  - Implementation of 112
  - ePrivacy and consumer protection
  - Minimum set of leased lines
  - Roaming regulation
  - Radio spectrum regulation harmonization in Europe

Privacy and Data Protection Law

- Different view points on privacy
  - technological: secrecy, anonymity
  - ethical: informational, physical, decisional, dispotional, proprietary privacy
  - legal: constitutions, intern'l human rights, data protection
- Allen: the concern of privacy is overstated
- The Data Protection Law aims at enabling useful processing of personal data, but it forbids unacceptable
  - People must be able to control certain usage of data
  - The disclosure of personal data to unsafe countries restricted

Data Protection Directives

- The legal basis of data protection in the EU include especially the *Directive on the protection of personal data* ***(Data Protection Directive)*** and the *Directive on the protection of personal data in the electronic communications sector (****E-Privacy Directive***).
- The Directives apply to the processing of personal data, i.e. ‘any information relating to an identified or identifiable natural person’.
- The processing of personal data is not illegal in general.
  - Data protection law tries to enable useful processing of personal data, but it needs to be carried out in accordance with the law.

Data Protection Principles

- Personal data may only be used for the specific purposes for which it was collected.
- Personal data must not be disclosed to others without the consent of the individual whom it is about, unless there is a legal reason to share it
- Individuals have a right of access to the information held about them
- Data may not be kept for longer than necessary.
- Personal information may not be transmitted outside the EEA without consent unless adequate protection
- Personal data must be adequately secured (technical and organizational protection)

E-Privacy Directive (2002/58)

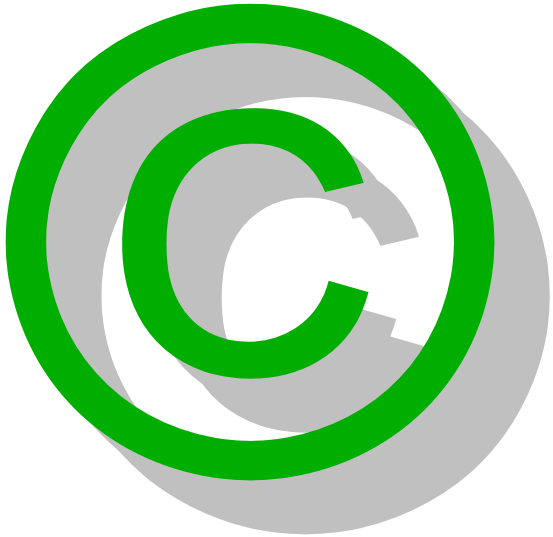
- Security of services
  - service providers duty to inform the subscribers on particular risks, such as viruses
- Confidentiality of information
- Data retention
  - traffic data to be stored from 6 to 24 months (2006/24)
  - right to non-itemised billing and no calling-line identification
  - management of location and other such data
- Spam: opt-in
- Cookies: opt-out

Intellectual Property Rights (IPR)

- It is possible to own physical objects
- One cannot own (have title to) intangible objects like software, information, or multimedia
- They can be objects of intellectual property rights:
  - copyright,
  - patent,
  - trademark, etc.
- Most intellectual property rights don't actually ensure that the right-holder may do something, but the right-holder may forbid others from doing something

Copyright

- A creative work is protected by copyright
- In Europe, copyright is still the main legal protection of computer software although patents in general have become more important
- Governed by national laws, EU directives, international treaties
- Copyright does NOT protect facts, ideas, plot, algorithms, etc., but merely the original expression



Economic Rights

- exclusive right to gain from the creative work, e.g.
  - to copy,
  - to modify
    - esp. in the USA, more unclear in Europe,
  - to sell
    - only the first sell, copyright exhaustion,
  - to display the work
- can be assigned and licensed
  - e.g. publishing contracts, end-user licenses

Moral rights

- Protect creative people's personality and honor
- Different rights in different countries/jurisdictions, e.g.
  - right to proclaim or disclaim authorship
    - to the extent that is common and good practice
  - right to object any modification that would be injurious to author's reputation
  - right to access the work
- Moral rights cannot be assigned at large
- Important also for non-profit creators
- Less important in software

Limitations to Copyright

In Europe (esp. Finland):

- Private use (not applicable to SW)
- Citation
- Reprint in press, etc.

In the USA

- Fair use: criticism, news reporting, teaching, research,…

- Limited (!) time period: copyright lasts for the life of the author plus 70 years
  - 30 years old person creates a computer program, dies at the age of 80, the copyright lasts 120 years – quite enough!

Creative Work in Internet

- Copyright is applicable also in Internet
  - E.g. www pages, news articles, e-mail, ...
- Copyright is widely harmonized
- New kinds of works, e.g. hyper-media
- New ways to use works of expression, new possibilities but also new threats and challenges

Intermediary liability

- Lots of unauthorized copies on the Net
- In principle, operators, service providers and other intermediaries can easily be liable for illegal information
  - High risks, prevent useful services
- Legislator has met them halfway: safe-harbor if the intermediary has only a passive role as a *mere conduit*:
  - not initiate the transmission,
  - not select the receivers, and
  - neither select nor modify the information
- Web 2.0: Liability on user generated content?
  - Currently mixed court cases on whether service provider is liable on youtube-styled content

Copyright in Ambient Intelligence

- Future scenarios show that the adaptation of content based on the device properties, context, user preferences, and so on will be very important
- Adaptation is useful and required.
- However, a copyright-owner has sometimes a right to object modifications, e.g. to protect valuable brands.
  - E.g. in the USA exclusive right in derivative works
- Also, modification may pre-empt safe harbour rules: operators and other intermediaries become widely liable for illegal content
- Potential conflict ➔ balance is needed.

Database Protection

- Valuable databases that are not creative ➔ copyright is not applicable ➔ they used to be outlaws
- EU directive + national laws
  - nonexistent in the USA and most other countries
- Requires a substantial investment in obtaining, verifying or presenting the contents of the database
- Exclusive right to prevent copying (extraction and/or re-utilization) of the whole or of a substantial part
- It does NOT protect single data items in the DB
- Lasts 15 years from completion or publication

Legal databases

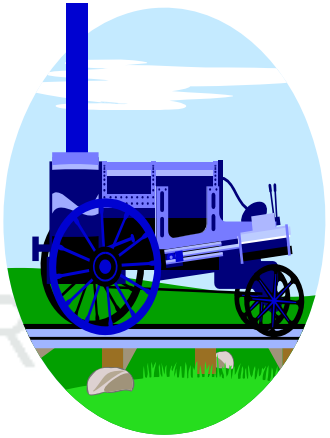
- EU Directive: DB is a collection of independent works, data or other material arranged in a systematic or methodical way and individually accessible.
- Can be also c*opyrighted* individual data items or even the whole if original and creative
  - most databases are not copyrightable

Technical databases

- Databases provide users with an abstract view of the data, hide details of how the data is stored and maintained.
- Compared to legal definition: arrangement and accessibility depend on the level of abstraction, view, and indices – not directly on investments and the value of a database
- Terms are fuzzy ➔ problems with interpretation

Patent ≠ Copyright

- Creative work is protected by copyright
  - original, expressed, creator's personality
- Inventions are protected by patents
  - in the USA: novel, useful, nonobvious
  - in Europe: new, an inventive step, and susceptible of industrial application



General Criteria for Patents

- novelty
  - a new invention, different from prior art
  - do not publish before applying for patent
- nonobviousness
  - unexpected or surprising new results
- usefulness
  - the invention must work,
  - e.g a perpetual motion machine would be novel, but it does not work

Types of Inventions that Do Not Qualify for Patent

- Mathematical formulas
- Scientific theories
- Laws of nature
- Pure indications of intelligence
- Any invention that is not repeatable, not described in detail
- Note: different rules in different countries
- How about computer programs *as such*?

Is Software Patentable?

- In Europe, mere computer programs do not qualify for patents – in theory
  - program as a part of another invention may qualify, e.g embedded software may be patentable
  - in practice, almost any program can be patentable
- In the USA, programs are widely patentable – nowadays also business methods and many other subject matters patentable
- Worldwide active ongoing discussion

Who is the inventor?

- A person who contributes significant input into an invention
- Several people invent in cooperation, they'll get the patent together
- Several people invent unaware of the others, first of them gets the patent
  - in the USA: first to invent
  - in the rest of the world: first to file
- In employment, employer may redeem the patent

Application and Publicity

- It is necessary to apply for a patent
- Good application is difficult to prepare
- It's often a good idea to use a patent attorney or an agent
- Application becomes public $\Rightarrow$ competitors can view it
- Sort of trade: the inventor discloses the invention, the society grants a temporal monopoly
  - Compare with the copyright system: copyright is achieved automatically, no need to disclose anything
  - Sometimes disclosure benefits others, but hardly e.g. in the software industry

Exclusive Rights

- Territory: the patent is valid only in the countries where it was granted
  - Compare with copyright: automatically worldwide coverage
- Time period: at most 20 years after the application date, annual increasing fees
  - Copyright: lifetime + 70 years
- In many countries, covers only professional use
  - Copyright: any use

Internationality

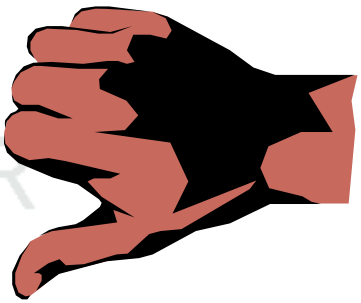
- In general, patents are valid only in the countries they were granted
  - 12 months period to extend the application to other countries
- Separate application in each country
  - PCT and EPC help in filing applications in several countries

Software Patents: Pros

- Object of the patent more suitable than the object of copyright
- More reasonable expiration time (max 20 years)
  - yet too long?
- Publicity is useful for the industry
- More established practice e.g as securities

Software Patents: Cons

- Unnecessary if copyright protects software
- Laborious, expensive application procedure favors large corporations although small enterprises are often more innovative
- Patent system in general questionable
- Favors American companies
- Practical problems
  - the incompetence of patent offices ➔ lots of poor patents esp. in the USA



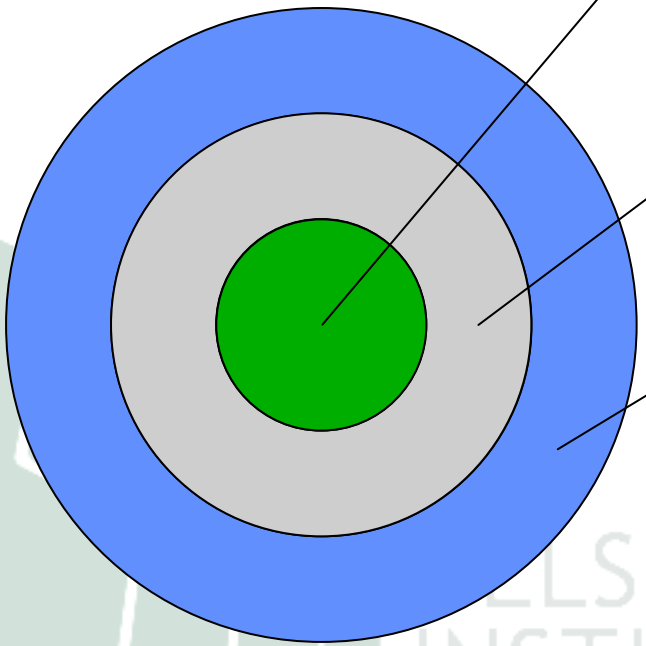
Trademark

- A distinctive word, phrase, logo, graphic symbol, or other device to identify the source of a product or service, *brand*
  - to distinguish a manufacturer's or merchant's products from anyone else's
- In Finland, can be registered or established
- In the USA, first use or registration ®

What is DRM?

- DRM = Digital Rights Management
  - Management of digital rights?
    - what are ”digital rights”?
  - Digital management of rights?
    - not all the rights, e.g. real estates
  - Usually ”Copyright technical protection”
    - quite narrow
  - management of rights in information products on networks?
    - also legal, economic, societal, etc viewpoints

Legal and technical protection



Content: information etc.
- copyright
- other IPR

Technical protection

Legal protection of technical protection

Other rights, e.g. privacy, freedom of speech

Technical v. Legal Protection

- Technical and legal protection depend on each other
- In general:
  - technical security protects *data,* i.e. bits
  - legal system protects *information* (with meaning)
  - in principle, it is possible to secure any data *technically*
  - it is possible to protect *legally* only information that lawmakers have considered valuable

Legal protection of technical protection

- In the USA, Digital Millennium Copyright Act (DMCA) 1998
- In the EU, Info Soc Directive 2001
  - implemented in national laws
- Legal protection against the circumvention of any effective technological measures
  - what is an *effective* measure?
  - really effective measures hardly need any protection
  - is the law to protect poor engineering?

Legal protection of technical protection

- Law prohibits the circumvention of technical protection of copyrighted works
- Covers also information that is not protected legal earlier (e.g. facts)?
- Jeopardizes scientific research, private use, etc.?
- On the other hand, enables new business models (continuing services instead of one-time transactions)
- Also ordinary people may protect their moral rights using systems like Creative Commons
- Once again, DRM itself is not necessarily bad, but the way industry is using it

Some Court Cases

- DeCSS, Jon Johanssen, Norweigian who published a program to circumvent DVD protection – acquitted: one should be able to view his own DVDs on his own computers
- Sklyarov, Russian programmer at Elcomsoft circumvented Adobe's e-book protection – acquitted: they didn't mean to violate the law
- Even though laws (esp. DMCAin the USA) are lousy, court decisions make sense and they improve the situation

Rights Description Languages

- E.g. ODRL, XrML
  - XML based languages
- Exact license terms in computer-readable form
- Problems e.g.
  - legal concepts are not exact, different in different countries, changing
  - languages are immature and inflexible
  - not human-readable: consumer protection issues

DRM Products

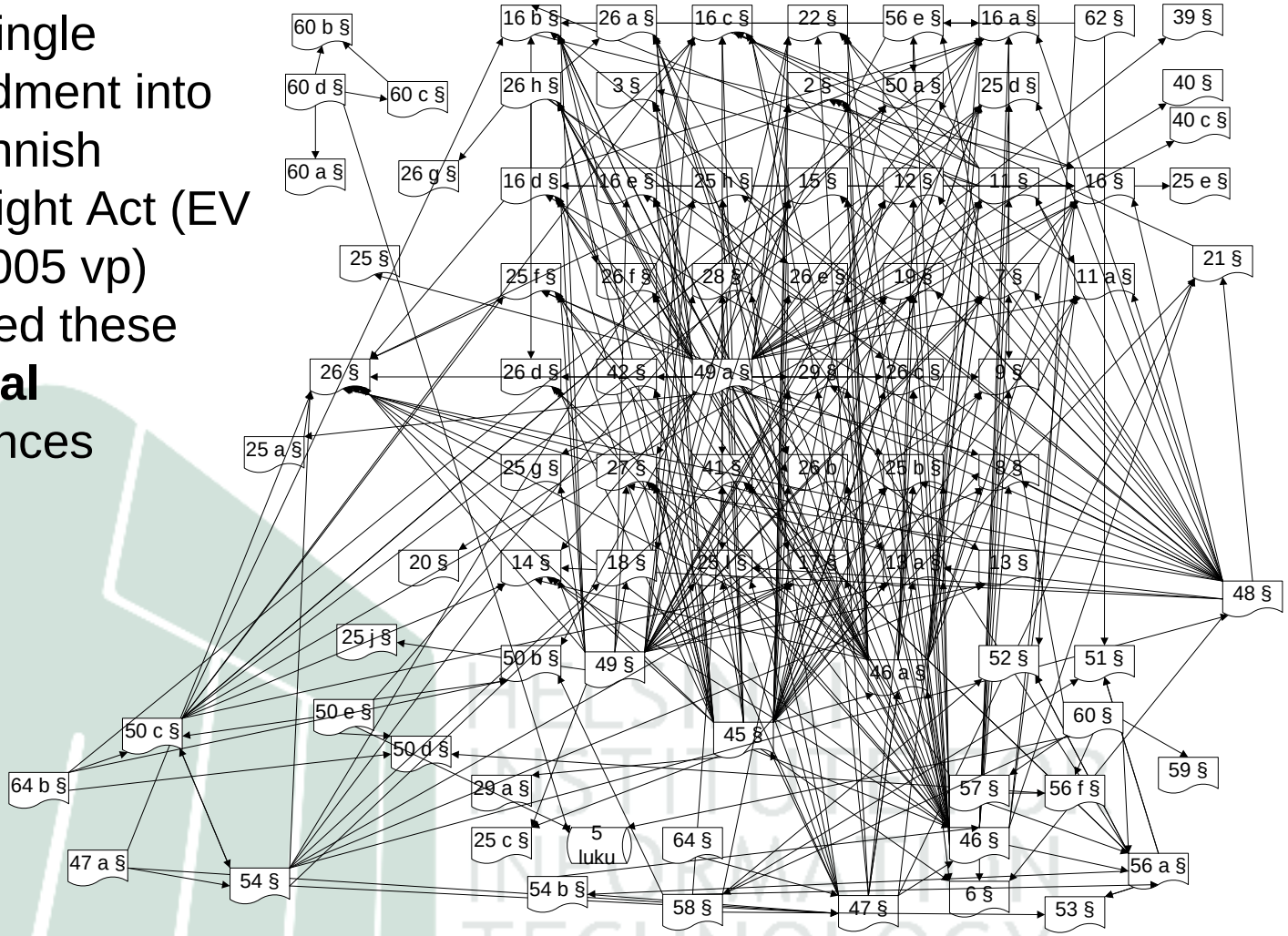
- Commercial applications e.g. Microsoft, IBM, Adobe, ContentGuard, (InterTrust), …
- Many companies were developing DRM technologies in the turn of the century, but the economic recession decreased interest
  - smaller providers disappeared
  - the development slowed down remarkably
- In the current upswing in the economy, DRM technologies are returning
- In recent years, patent disputes have retarded the development!

DRM Future

- To enable commerce in digital content, some kind of DRM is useful
- The end users could benefit from fair DRM and they could publish their own content using Creative Commons or a similar system
- The current solutions are incomplete
  - technical tools are immature
  - legal solutions are partly poor
  - business solutions are only emerging
  - consumers and original authors are forgotten
- Yet: in the future, DRM will be more essential

Copyright Law Complex?

One single amendment into the Finnish Copyright Act (EV 100/2005 vp) included these **internal** references



More information

- European law (directives etc):
  - Eur-Lex http://eur-lex.europa.eu/
  - Cocom and RSC: http://ec.europa.eu/information_society/policy/ecomm/committees_working_groups/index_en.htm
- Finnish law:
  - Finlex: http://www.finlex.fi/
  - Ficora: http://www.ficora.fi/index/saadokset.html
- General:
  - Edilex: http://www.edilex.fi/