

SCHOOL OF
ECONOMICS AND
MANAGEMENT

Intellectual property

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Intellectual property related to information security

- In today's electronic world, an organization's intellectual property is sometimes its biggest asset. Much time and money can be saved, if the organization or company policy dictates **ownership and use of intellectual property**.

Outline

Part I

- What is intellectual property (rights)?
- Historical development of IPR
- Justifications for Intellectual Property Rights
- Economic importance of IPRs

Part II

- Patents
- Trade secrets
- Trademarks
- Industrial designs
- Copyright
- Directive on Copyright in the Digital Single Market 2019/790

Part I

What is intellectual property?

What is intellectual property?

- "Intellectual property" refers to creations of the mind
- **Industrial property:** Patents for inventions, trademarks, industrial designs and geographical indications
- **Copyright:** literary works (such as novels, poems and plays), films, music artistic works – and also related/neighbouring rights ...

Intellectual property rights

- **Patents:** Inventions
- **Trademarks:** Distinctive, recognizable sign which identifies products or services of a particular (commercial) source/origin from those of others
- **Copyright:** Literary and artistic works
- **Design:** Shape of a product
- .. IPRs also includes geographical indications, **trade secrets**, plant variety, semiconductors... etc.

Property rights?

- Intellectual property rights are exclusive (economic) rights:
 - Rights to **prohibit** others from exploiting the "intangible" subject matter that is covered by the IPR (the subject matter of the IPR) – i.e. the invention, the trademark, the work etc. without **permission** from the rightholder.
 - Basis for remuneration/exploitation – **licensing**
 - Basis for **enforcement** measures (injunctions, damages, penalties)
- **Not absolute** – the rights have to be **balanced** in relation to other rights and interests
- Intellectual property rights are exceptions to the main rule, which is that it is permissible to copy and imitate others (including competitors).

Structure of IPRs

- **Prerequisites** for protection
- **Object** of protection
- **Exclusive rights** (*rights to prohibit and authorize*)
- **Exceptions and limitations** to the exclusive rights
- **Term of protection**
- **Enforcement**

Historical development of IPR

Historical development

- From a system of **privileges** to a system based on intellectual **property** rights

Historical development

- The intellectual property rights are based on the general (public) interests of **promoting and rewarding creative efforts and investments** in such activities, as well as **the individual (natural rights) interests of authors, inventors and other creators**
- The intellectual property rights are designed to work and be applied in a **market economy**
- Protection of **investments**
- Promotion of general welfare, development, sustainability etc..?

Historical development

- The importance of intellectual property has been recognized in international agreements and conventions (treaties).
- An interest not only of protection in the country where the creative effort or related investment has been carried out, but also in **other countries** where the results of those efforts are **exploited**.
 - International dimension – international trade
 - *Principle of territoriality*: National (territorial) intellectual property protection **does not have extra-territorial effect**
 - **Need for multilateral agreements – agreements (treaties) covering several countries**

Main, traditional international conventions (treaties) on intellectual property rights

- **Berne Convention** on literary and artistic works, adopted in 1886 – last amended in 1979
- **Paris Convention** for the Protection of Industrial Property, adopted in 1883 – last amended in 1979
- **Agreements on administrative / formal issues**; PCT, PLT, Lisbon, Madrid etc.

Basic principles in the Berne and Paris Conventions

- **Principle of territoriality**
- **National treatment**
- **Minimum protection**

Justifications for Intellectual Property

General justifications

- **Natural rights** (personhood)
- **Reward** ("desert" – backwards looking, unjust enrichment /unfair competition)
- **Incentive** (forward looking – public interest, instrumentalism, incentive)

Article 17 of the EU Charter: Right to property

- 1. Everyone has the right to own, use, dispose of and bequeath his or her lawfully acquired possessions. No one may be deprived of his or her possessions, except in the public interest and in the cases and under the conditions provided for by law, subject to fair compensation being paid in good time for their loss. The use of property may be regulated by law in so far as is necessary for the general interest.
- **2. Intellectual property shall be protected.**

Why promote and protect intellectual property?

- There is a belief that the progress and well-being of humanity rest on its capacity to **create** and **invent** new works in the areas of technology and culture.
- **Also**, the promotion and protection spurs **economic growth**, creates **new jobs** and **industries**.

The IPR system

Economic importance of IPRs

“IPR-intensive industries contribute 26% of employment and 39% of GDP in the EU.”

- “It has never been so important to foster the ‘virtuous circle’ leading from Research and Development (R&D) investment to jobs – via innovation, competitive advantage and economic success – as in today’s world of increasingly globalised markets and the knowledge economy. This process depends on several different factors, but **an efficient system of intellectual property rights (IPR) undoubtedly ranks among the most important, given IP’s capacity to encourage creativity and innovation, in all its various forms, throughout the economy.**”

Some numbers

Main EU IPR Directives and Regulations

- **Copyright**

- Computer Programs Directive (1991/250)
- Rental and Lending Directive (1992/100)
- Satellite and Broadcasting Directive (1993/83)
- Terms of Protection Directive ((1993/98) 2006/116)
- Database Directive (1996/9)
- InfoSoc Directive (2001/29)
- Resale Rights Directive (Droit de suite) (2001/84)
- Extension of term of protection Directive (2011/77)
- Orphan Works Directive (2012/28)
- Directive 2019/790 on Copyright in the Digital Single Market

- **Patents**

- Biotech Directive (98/44/EC)

- **Trademarks**

- Trade mark Regulation (2015/2424)
- Trade Mark Directive (2015/2436)

- **Designs**

- Design Directive 98/71/EC
- Community design Regulation 6/2002

- **Trade secrets**

- Directive (EU) 2016/943 on the protection of trade secrets

Part II

Copyright and related rights

Copyright

- **Subject matter:** Literary and artistic works
- **Requirement for protection:** Originality – “author’s own intellectual creation”

Article 2(1) of the Berne Convention

- (1) The expression “**literary and artistic works**” shall include every production in the **literary, scientific and artistic domain, whatever may be the mode or form of its expression, such as** books, pamphlets and other writings; lectures, addresses, sermons and other works of the same nature; dramatic or dramatico-musical works; choreographic works and entertainments in dumb show; musical compositions with or without words; cinematographic works to which are assimilated works expressed by a process analogous to cinematography; works of drawing, painting, architecture, sculpture, engraving and lithography; photographic works to which are assimilated works expressed by a process analogous to photography; works of applied art; illustrations, maps, plans, sketches and three-dimensional works relative to geography, topography, architecture or science.

Catogories of literary and artistic works and their separate markets

- **Entertainment** – music, art, literature, computer games, film, radio, TV
- **Information** – journalism, public authority information, webb-productions, database presentations
- **Science & learning** – means of culture, educational materials, scientific results
- **Technique & standards** – software, industrial design, applied art

Copyright and related rights (II)

- The creators of works protected by copyright, have certain basic rights under copyright law.
- They hold the exclusive right to use or authorize others to use the work on agreed terms.
- Copyright requires **no formalities**.
 - © ?
- **Copyright protection extends to expressions** and not to ideas, procedures, methods of operation or mathematical concepts as such.
- The term of protection for works is 70 years *pma*.

*Art. 2 WCT –
Scope of Copyright
Protection*

Copyright protection
extends to *expressions*
and not to *ideas*,
*procedures, methods of
operation or
mathematical concepts
as such.*

Art. 9(2) TRIPS

Copyright protection
shall extend to
expressions and not to
*ideas, procedures,
methods of operation or
mathematical concepts
as such.*

The Notion of Originality According to the EC-Directives

- A computer program shall be protected if it is original in the sense that it is the **author's own intellectual creation**. No other criteria shall be applied to determine its eligibility for protection.
- A database shall be protected by copyright if it is original in the sense that it is a collection of works or materials which, by reason of their selection or their arrangement, constitutes the **author's own intellectual creation**. No other criteria shall be applied to determine the eligibility of a database for this protection.
- Photographs which are original in the sense that they are the **author's own intellectual creation** shall be protected... No other criteria shall be applied to determine their eligibility for protection. Member States may provide for the protection of other photographs.

Requirement of Originality (EU law)

- An expression of "an author's own intellectual creation"
- An expression (result of) **free** and **creative** choices
- A reflection of the author's **personality**

Requirement of Originality

- EU case C-145/10, Painer (paras. 88-92)
- 88 "... an intellectual creation is an author's own if it reflects the author's personality.
- 89 That is the case if the author was able to express his creative abilities in the production of the work by making free and creative choices.
- 90 As regards a portrait photograph, the photographer can make free and creative choices in several ways and at various points in its production.
- 91 In the **preparation phase**, the photographer can choose the background, the subject's pose and the lighting. When **taking a portrait photograph**, he can choose the framing, the angle of view and the atmosphere created. Finally, **when selecting the snapshot**, the photographer may choose from a variety of developing techniques the one he wishes to adopt or, where appropriate, use computer software.
- 92 By making those various choices, the author of a portrait photograph can stamp the work created with his 'personal touch'.

Case C-5/08 (Infopaq)

- 44 As regards newspaper articles, their author's own intellectual creation, referred to in paragraph 37 of this judgment, is evidenced clearly from **the form, the manner in which the subject is presented and the linguistic expression**. In the main proceedings, moreover, it is common ground that newspaper articles, as such, are literary works covered by Directive 2001/29.
- 45 Regarding the elements of such works covered by the protection, it should be observed that they consist of words which, considered in isolation, are not as such an intellectual creation of the author who employs them. **It is only through the choice, sequence and combination of those words that the author may express his creativity in an original manner and achieve a result which is an intellectual creation.**
- 46 **Words as such do not, therefore, constitute elements covered by the protection.**
- 47 That being so, given the requirement of a broad interpretation of the scope of the protection conferred by Article 2 of Directive 2001/29, the possibility may not be ruled out that certain isolated sentences, or even certain parts of sentences in the text in question, may be suitable for conveying to the reader the originality of a publication such as a newspaper article, by communicating to that reader an element which is, in itself, the expression of the intellectual creation of the author of that article. Such sentences or parts of sentences are, therefore, liable to come within the scope of the protection provided for in Article 2(a) of that directive.
- 48 In the light of those considerations, the reproduction of an extract of a protected work which, like those at issue in the main proceedings, comprises **11 consecutive words thereof**, is such as to constitute reproduction in part within the meaning of Article 2 of Directive 2001/29, if that extract contains an element of the work which, as such, expresses the author's own intellectual creation; it is for the national court to make this determination.

C-604/10, Football Dataco and Others

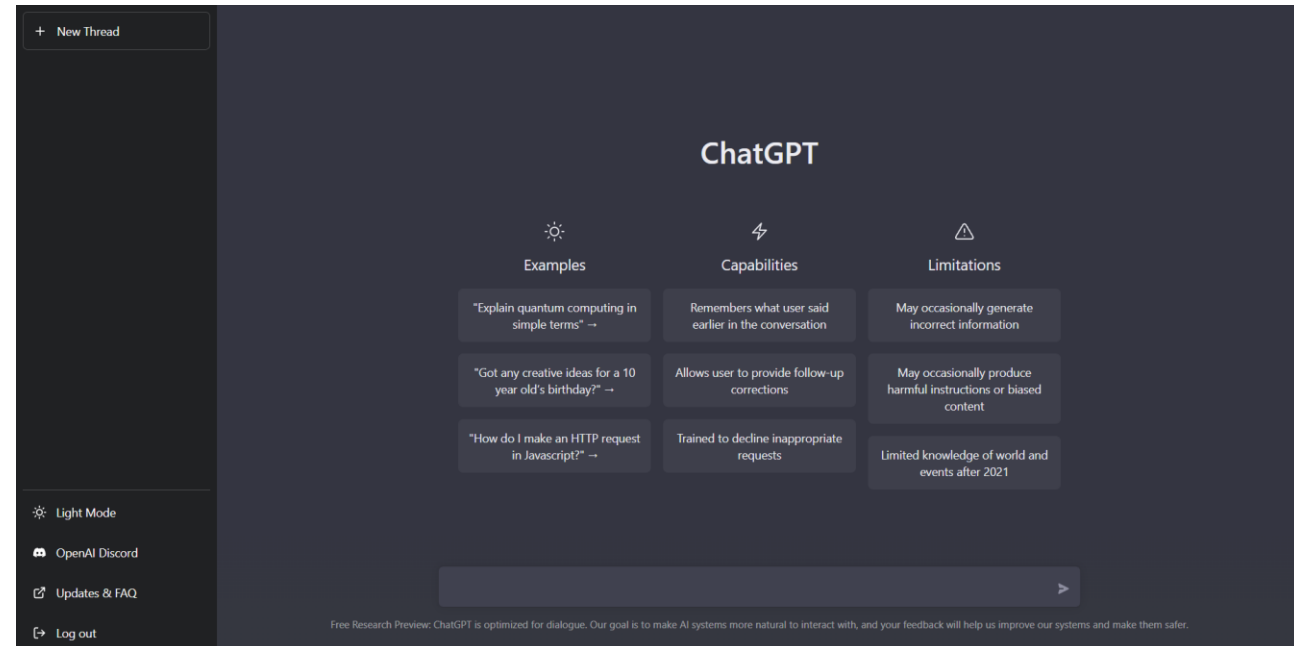
- **Article 3 of Directive 96/9:**
 - '1. In accordance with this Directive, databases which, by reason of the **selection or arrangement** of their contents, constitute the author's own intellectual creation shall be protected as such by copyright. No other criteria shall be applied to determine their eligibility for that protection.
 - 2. The copyright protection of databases provided for by this Directive shall not extend to their contents and shall be without prejudice to any rights subsisting in those contents themselves.'

C-604/10, Football Dataco and Others

- 1. Article 3(1) of Directive 96/9/EC must be interpreted as meaning that a **‘database’ within the meaning of Article 1(2) of that directive is protected by the copyright laid down by that directive provided that the selection or arrangement of the data which it contains amounts to an original expression of the creative freedom of its author**, which is a matter for the national court to determine.
 - **As a consequence:**
 - the intellectual **effort and skill of creating that data are not relevant** in order to assess the eligibility of that database for protection by that right;
 - it is irrelevant, for that purpose, whether or not the selection or arrangement of that data includes the addition of important significance to that data, and
 - **the significant labour and skill required for setting up that database cannot as such justify such a protection if they do not express any originality in the selection or arrangement** of the data which that database contains.
- 2. Directive 96/9 must be interpreted as meaning that, subject to the transitional provision contained in Article 14(2) of that directive, it precludes national legislation which grants databases, as defined in Article 1(2) of the directive, copyright protection under conditions which are different to those set out in Article 3(1) of the directive.



Artificial intelligence?



Subject matter (neighbouring or related rights)

- Copyright (author's rights) only protect original creations of human mind ("literary and artistic works")
- Certain "**related**" or "**neighbouring**" products have been considered valuable enough to merit protection (although they are not original creations of human mind)
- Performers (for their performances of works)
- Phonogram producers (for their sound recordings)
- Film producers (for their audiovisual recordings)
- Broadcasting organisations (for their broadcasts)
- Database producers (for their investments in databases)
- Press publications (for online use of such publications)

Database producers

- The **selection and arrangement** of a database can be protected by **copyright** as a collection or compilation (article 2(5) Berne Convention, article 10(2) TRIPS and article 5 WCT)
- No international agreement/instrument on additional *sui generis* protection for (the investments in producing) databases
- **Protected at EU level through the Database directive (96/9)**
 - Article 1(2) database directive: "For the purposes of this Directive, 'database' shall mean a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means."
 - Article 3: Copyright protection for the selection and arrangements of the contents
 - Article 7 (sui generis right): "Member States shall provide for a right for the maker of a database which shows that there has been qualitatively and/or quantitatively a **substantial investment** in either the **obtaining, verification or presentation** of the contents to prevent extraction and/or re-utilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database." (Article 7 of the Database Directive)

Copyright

- **Exclusive economic rights:**
 - **Reproduction** (article 9.1 of the Berne Convention and article 2 of EU Directive 2001/29), and
 - **Communication to the public** (article 11 et seq. of the Berne Convention and article 3 of EU Directive 2001/29)

Rights provided to authors and other right holders

- Right of reproduction
- Right of communication to the public
- Right of distribution
- Right of public performance
- (...)

Right of reproduction (article 2, dir 2001/29)

- Member States shall provide for the exclusive right to authorise or prohibit direct or indirect, **temporary or permanent** reproduction **by any means and in any form, in whole or in part**:
 - a) for authors, of their works;
 - b) for performers, of fixations of their performances;
 - c) for phonogram producers, of their phonograms;
 - d) for the producers of the first fixations of films, in respect of the original and copies of their films;
 - e) for broadcasting organisations, of fixations of their broadcasts, whether those broadcasts are transmitted by wire or over the air, including by cable or satellite.

Case C-5/08, Infopaq

- 51. ... an act occurring during a data capture process, which consists of **storing an extract** of a protected work **comprising 11 words** and printing out that extract, is such as to come within the concept of reproduction in part within the meaning of Article 2 of Directive 2001/29, *if the elements thus reproduced are the expression of the intellectual creation of their author*; it is for the national court to make this determination.

Case C-419/13, Allposter

Case C-419/13, Allposter

- (43) ... **a replacement of the medium** ... results in the creation of a new object, whereas the poster itself ceases to exist. Such alteration ... constitute a new reproduction of the work.
- (45) ... the image's medium has been altered.
- **New copy!**

Right of communication to the public (article 3, dir 2001/29)

1. Member States shall provide authors with the exclusive right to authorise or prohibit any communication to the public of their works, by wire or wireless means, **including the making available to the public of their works in such a way that members of the public may access them from a place and at a time individually chosen by them.**
2. Member States shall provide for the exclusive right to authorise or prohibit the making available to the public, by wire or wireless means, **in such a way that members of the public may access them from a place and at a time individually chosen by them:**
 - a) for **performers**, of fixations of their performances;
 - b) for **phonogram producers**, of their phonograms;
 - c) for the **producers of the first fixations of films**, of the original and copies of their films;
 - d) for **broadcasting organisations**, of fixations of their broadcasts, whether these broadcasts are transmitted by wire or over the air, including by cable or satellite.
3. The rights referred to in paragraphs 1 and 2 shall not be exhausted by any act of communication to the public or making available to the public as set out in this Article.

Recital 27 (preamble): **The mere provision of physical facilities for enabling or making a communication does not in itself amount to communication within the meaning of this Directive.**

Case C-306/05 (Rafael Hoteles)

Communication to the public

- “A hotel proprietor carries out an act of communication when he gives his customers access to the broadcast works via television sets, by distributing in the hotel rooms, with full knowledge of the position, the signal received carrying the protected works.”
(Case C-306/05, Rafael Hoteles)

Case C-306/05 (Rafael Hoteles)

1. While the mere provision of physical facilities does not as such amount to communication within the meaning of Directive 2001/29/EC, the distribution of a signal by means of television sets by a hotel to customers staying in its rooms, whatever technique is used to transmit the signal, constitutes communication to the public within the meaning of Article 3(1) of that directive.
2. The private nature of hotel rooms does not preclude the communication of a work by means of television sets from constituting communication to the public within the meaning of Article 3(1) of Directive 2001/29.

“Member States shall provide authors with the exclusive right to authorise or prohibit any communication to the public of their works, by wire or wireless means, **including the making available to the public of their works in such a way that members of the public may access them from a place and at a time individually chosen by them.**”
(*“On demand”*)

Case C-753/18 – Stim and SAMI

- Article 3(1) of Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society and Article 8(2) of Directive 2006/115/EC of the European Parliament and of the Council of 12 December 2006 on rental right and lending right and on certain rights related to copyright in the field of intellectual property must be interpreted as meaning that **the hiring out of motor vehicles equipped with radio receivers does not constitute a communication to the public within the meaning of those provisions.**

Case C-466/12, Svensson

- (27) Where all the users ... by means of a **clickable link** could access ... works directly on the site on which they were initially communicated ... the users of the site managed by the latter must be deemed to be potential recipients of the initial communication and, therefore, **as being part of the public taken into account by the copyright holders when they authorised the initial communication.**
- (28) ... since there is no **new public**, the authorisation of the copyright holders is not required for a communication to the public

Case C-466/12, Svensson

- Article 3(1) of Directive 2001/29/EC ... must be interpreted as meaning **that the provision on a website of clickable links to works freely available on another website does not constitute an ‘act of communication to the public’, as referred to in that provision.**
- Article 3(1) of Directive 2001/29 must be interpreted as precluding a Member State from giving wider protection to copyright holders by laying down that the concept of communication to the public includes a wider range of activities than those referred to in that provision.
 - **Directive 2001/29 is a full/maximum directive**

Case C-160/15, GS Media

- For profit
 - Intentionally
 - Knowledge
-
- **Subjective elements** may be decisive for a definition of an act of communication

Some more cases from the CJEU on the right of communication to the public...

- C-306/05 SGAE
- C-136/09 Organismos Sillogikis Diacheirisis...
- C-393/09 BSA
- C-403/08 och C-429/08 Football Association Premier League
- C-431/09 och C-432/09 Airfield
- C-283/10 Circul Globus București
- C-135/10 Marco Del Corso
- C-162/10 Phonographic Performance
- C-510/10 DR och TV2 Danmark
- C-607/11 ITV Broadcasting
- C-466/12 Svensson
- C-351/12 OSA
- C-314/12 UPC Telekabel
- C-348/13 BestWater International
- C-279/13 C More Entertainment
- C-325/14 SBS Belgium
- C-117/15 Reha Training
- C-151/15 Sociedade Portuguesa
- C-160/15 GS Media BV
- C-275/15 ITV Broadcasting
- C-301/15 Soulier & Doke
- C-641/15 Verwertungsgesellschaft Rundfunk
- C-138/16 Staatlich genehmigte Gesellschaft der Autoren...
- C-527/15 Stichting Brein
- C-610/15 Stichting Brein
- ...

Overview of case law – right of communication to the public

- The concept of ‘communication to the public’ should be understood in a broad sense, **covering all communication to the public not present at the place where the communication originates** and, thus, any such transmission or retransmission of a work to the public by wire or wireless means, including broadcasting.
- **Two cumulative criteria:** an ‘act of communication’ of a work and the communication of that work to a ‘public’
- **Communication:** Any act whereby a user, in full knowledge of the consequences of what he or she is doing, gives access to protected work is liable to constitute an act of communication.
- **Public:** The communication is being directed at an **indeterminate number of potential recipients**, and **involving a fairly large number of people**.
- A protected work must further be communicated using **specific technical means**, different from those previously used **or, failing that, to a new public**, that is to say, to a public that was not already taken into account by the copyright holder when he or she authorised the initial communication of his or her work to the public
- The concept of ‘communication to the public’ requires **an individual assessment**.

Copyright

- **Exceptions and limitations:** Wide range of exceptions and limitations, for example including limitation for reproduction for private purposes, quotations, use by the press and other media etc.
 - Article 5 of EU Directive 2001/29
- Three step test (article 5.5 of Directive 2001/29)
 - **“The exceptions and limitations provided for in paragraphs 1, 2, 3 and 4 shall only be applied in certain special cases which do not conflict with a normal exploitation of the work or other subject-matter and do not unreasonably prejudice the legitimate interests of the rightholder.”**

Art. 5.2 Infosoc Directive – Limitations to the Economic Rights in art. 2. (Optional listing)

- Member States may provide for exceptions or limitations to the reproduction right provided for in Article 2 in the following cases
 - a) Photographic reproductions on paper etc.
 - b) Reproductions for private use
 - c) Specific reproductions by libraries, archives, museums etc.
 - d) Ephemeral recordings by broadcasting organisations
 - e) Reproductions of broadcasts made by social institutions (hospitals, prisons etc.)

Art. 5.3 Infosoc Directive – Limitations to the Economic Rights in art. 2–3 (Optional listing)

- Member States may provide for exceptions or limitations to the rights provided for in Articles 2 and 3 in the following cases:
 - a) illustration for **teaching or scientific research**
 - b) uses for the benefit of people with a disability
 - c) reproduction etc. **by the press on current events**
 - d) quotations** for purposes such as criticism or review
 - e) use for the purposes of public security
 - f) use of political speeches etc.
 - g) religious or official celebrations
 - h) architecture or sculpture located permanently in public places
 - i) incidental inclusion of a work in other material
 - j) use for the purpose of advertising the public exhibition or sale of artistic works
 - k) parody or pastiche**
 - l) use in connection with the demonstration or repair of equipment
 - m) use in connection with reconstruction of a building
 - n) use by communication or making available, for the purpose of research or private study
 - o) use in certain other cases of minor importance where exceptions or limitations already exist under national law, provided that they only concern analogue uses and do not affect the free circulation of goods and services within the community...

Art. 6 Infosoc Directive – Obligations as to **technological measures**

- 1. Member States shall provide adequate legal protection against the circumvention of any effective technological measures, which the person concerned carries out in the knowledge, or with reasonable grounds to know, that he or she is pursuing that objective.
- 2. Member States shall provide adequate legal protection against the manufacture, import, distribution, sale, rental, advertisement for sale or rental, or possession for commercial purposes of devices, products or components or the provision of services ...

Directive on Copyright in the Digital Single Market 2019/790

Background

- **The evolution of digital technologies** has changed the way works and other protected subject-matter are **created, produced, distributed** and **exploited**.
 - **New uses have emerged** as well as **new actors** and **new business models**.
- **In the digital environment**, cross-border uses have also intensified and new opportunities for consumers to access copyright-protected content have materialised.
- “**Even though the objectives and principles laid down by the EU copyright framework remain sound, there is a need to adapt it to these new realities. Intervention at EU level is also needed to avoid fragmentation in the internal market.**”

DSM Directive - Outline

- **32 Articles and 86 Recitals**
- Article 1-2 General Provisions (subject matter, scope and definitions)
- Article 3-7 Measures to adapt exceptions and limitations to the digital and cross-border environment
- Article 8-14 Measures to improve licensing practices and ensure wider access to content
- Article 15-23 Measures to achieve a well-functioning marketplace for copyright
- Article 24-32 Final Provisions

Article 17 – Use of protected content by online content-sharing service providers

- Purpose of article 17?
 - Recital 61: [...] **Online content-sharing services providing access to a large amount of copyright-protected content uploaded by their users have become a main source of access to content online. [...] Legal uncertainty exists as to whether the providers of such services engage in copyright-relevant acts, and need to obtain authorisation from rightholders for content uploaded by their users who do not hold the relevant rights in the uploaded content, without prejudice to the application of exceptions and limitations provided for in Union law. [...] It is therefore important to foster the development of the licensing market between rightholders and online content-sharing service providers.**

Article 2.6 Definition

- “**online content-sharing service provider**’ means a provider of an information society service of which the main or one of the main purposes is to **store and give the public access to a large amount of copyright-protected works** or other protected subject matter uploaded by its users, which it **organises and promotes for profit-making purposes**.
- **Providers of services, such as not-for-profit online encyclopedias**, not-for-profit educational and scientific repositories, open source software-developing and-sharing platforms, providers of electronic communications services as defined in Directive (EU) 2018/1972, **online marketplaces**, business-to-business cloud services and cloud services that allow users to upload content for their own use, **are not ‘online content-sharing service providers’ within the meaning of this Directive.**”

Article 17 – Use of protected content by online content-sharing service providers (summary)

- 17.1: The platform is (deemed to be) carrying out an act of communication to the public of the content that is uploaded by the users of its service. The platform thus needs a license (permission) to avoid liability for infringement.
- 17.2: The license (permission) will also cover the activities of the users.
- 17.3: The limitation on liability set out in article 14 of the e-commerce directive (2000/31) does not apply to these platforms.
- 17.4: If the platform does not obtain the necessary licenses, it needs to show that it has tried to do so. The platforms also needs to remove infringing content and to make sure that it is not uploaded again.

Article 17 – Use of protected content by online content-sharing service providers (summary)

- 17.5: The obligations set out in article 17.4 is dependent on the size of the platform.
- 17.6: Certain smaller platforms are excluded altogether.
- 17.7: Certain limitations/exceptions are made mandatory – such as quotations, parody etc.
- 17.8: The obligations on the platforms, as set out in article 17, may not lead to any general obligation to monitor.
- 17.9: Alternative dispute resolution.
- 17.10: Dialogue between concerned parties (rightholders and platforms etc.)

Terms of Protection

Literary and artistic works:	50 (70) years <i>p.m.a.</i>
Cinematographic works:	50 years from making (70 years <i>p.m.a.</i>)
Photographic works and works of applied arts:	25 years from making (70 years <i>p.m.a.</i>)
Performing artists	20 (70) years from fixation or publication
Phonograms	20 (70) years from fixation or publication
Producers:	20 (50) years from fixation
Databases:	15 years from collecting etc.

Artificial Intelligence, Big Data and Copyright

Business | Schumpeter

A battle royal is brewing over copyright and AI

Beware the Napster precedent

Artificial intelligence within the fields of literary and artistic creativity

- Computer-based /algorithmic creativity

1. Input
2. Learning algorithm
3. Trained algorithm
4. Output

Artificiell intelligens within the area of music

- Artificial Intelligence Virtual Artist (**AIVA**)
- <https://www.aiva.ai/>
- <https://www.youtube.com/watch?v=sA5Svy1bQbw>



DALL·E

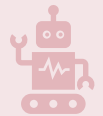
- <https://openai.com/product/dall-e-2>
- Cf. Midjourney, Stable diffusion..



Artificial intelligence?



Is the AI **autonomous** or more akin to a **tool** for human creativity?



AI-**supported** or AI-**generated**?



Creative input/feedback by programmer and/or user?

Théâtre D'opéra Spatial

- Author?

The New York Times

An A.I.-Generated Picture Won an Art Prize. Artists Aren't Happy.

“I won, and I didn’t break any rules,” the artwork’s creator says.



US Copyright Office

- Zarya of the Dawn (Registration # VAu001480196)
- <https://www.copyright.gov/docs/zarya-of-the-dawn.pdf>



US Copyright Office

- **Copyright protection depends on** whether AI's contributions are “the result of mechanical reproduction” such as in response to text prompts, or if they reflect the author’s “own mental conception.”
- **“The answer will depend on the circumstances**, particularly how the AI tool operates and how it was used to create the final work.”
- **Copyright Registration Guidance:** Works Containing Material Generated by Artificial Intelligence
- https://www.copyright.gov/ai/ai_policy_guidance.pdf
- Compare with the CJEU case C-145/10 – **Painer**.



Copyright-related questions related to AI **input**

Existing works as
training data

Exceptions/limitations
for the purposes of
text and data mining

Getty Images lawsuit says Stability AI misused photos to train AI

Bloomberg Law

AI Art Generators Hit With Copyright Suit Over Artists' Images

Input data? Temporary forms of reproduction (copyright and most neighboring rights)

- Article 2 directive 2001/29 (infosoc): Reproduction right

Member States shall provide for the exclusive right to authorise or prohibit direct or indirect, **temporary or permanent reproduction** by any means and in any form, in whole or in part:

- (a) for authors, of their works;
- (b) for performers, of fixations of their performances;
- (c) for phonogram producers, of their phonograms;
- (d) for the producers of the first fixations of films, in respect of the original and copies of their films;
- (e) for broadcasting organisations, of fixations of their broadcasts, whether those broadcasts are transmitted by wire or over the air, including by cable or satellite.

Input data? Text and data mining?

- Article 2(2) directive 2019/790 (copyright digital single market)
 - **‘text and data mining’** means any automated analytical technique aimed at analysing text and data in digital form in order to generate information which includes but is not limited to patterns, trends and correlations;

Input data? Text and data mining?

- **Article 4** directive 2019/790 (copyright digital single market): General exception or limitation for text and data mining
 1. Member States shall provide for an exception or limitation to the rights provided for in Article 5(a) and Article 7(1) of Directive 96/9/EC, Article 2 of Directive 2001/29/EC, Article 4(1)(a) and (b) of Directive 2009/24/EC and Article 15(1) of this Directive **for reproductions and extractions of lawfully accessible works and other subject matter** for the purposes of text and data mining.
 2. Reproductions and extractions made pursuant to paragraph 1 may be retained for as long as is necessary for the purposes of text and data mining.
 3. **The exception or limitation provided for in paragraph 1 shall apply on condition that the use of works and other subject matter referred to in that paragraph has not been expressly reserved by their rightholders in an appropriate manner, such as machine-readable means in the case of content made publicly available online.**
 4. This Article shall not affect the application of Article 3 of this Directive.

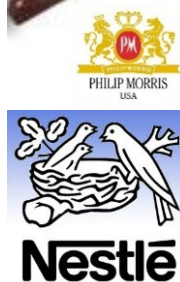
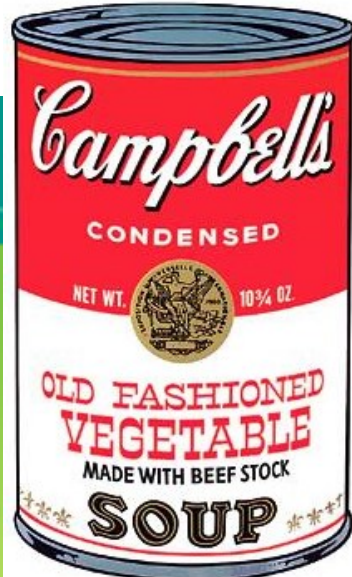
Trademarks

PHILIPS
VOLVO



BIC

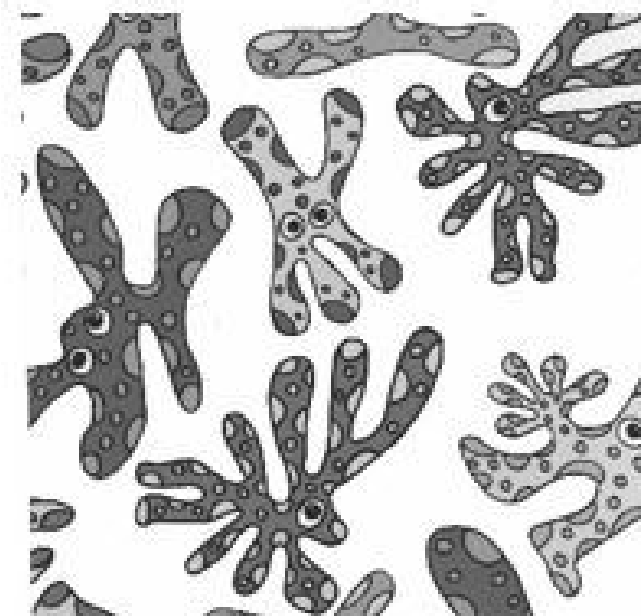
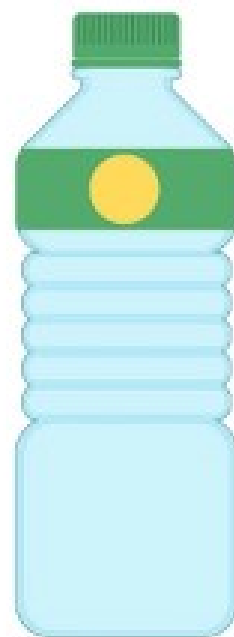
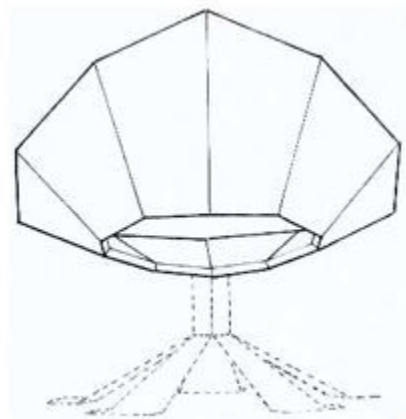
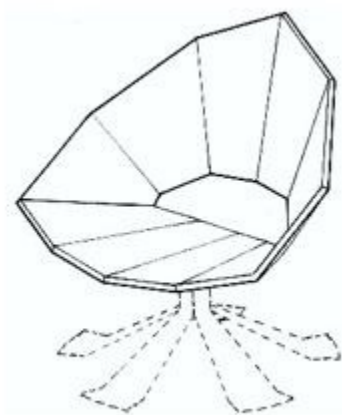
IKEA



Trademarks

- A trademark is a **distinctive sign** that identifies certain goods or services produced or provided by an individual or a company.
- Perspective of the **average consumer**.
- Trademark protection ensures that the owners of marks have the **exclusive right** to use them to identify goods or services, or to authorize others to use them in return for payment.
- The period of **protection can be renewed indefinitely**.
- An application for registration of a trademark must (normally) be filed with the appropriate national or regional trademark office.

Industrial designs



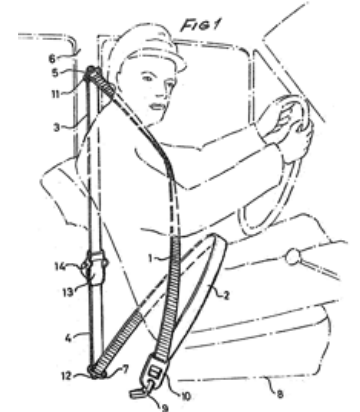
Design protection

- A design refers to **the ornamental or aesthetic aspects of an article**.
- A design may consist of **three-dimensional** features, such as the shape or surface of an article, or **two-dimensional** features, such as patterns, lines or color.
- **New and individual character**.
- **Exclusive right** to use the design and to prevent any third party not having his consent from using it.
 - This includes the making, offering, putting on the market, importing, exporting or using of a product in which the design is incorporated or to which it is applied...
- The scope of protection includes any design which does not produce on the **informed user** a **different overall impression**.
- **Term of protection** normally 25 years.
- Registration or without registration.

Patents

Examples of patents

- The lightbulb
- The internal combustion engine
- The telephone
- Three-point seat belt
- Bluetooth



Patents

- **Inventions in the technical field**
- The invention must show an element of "**novelty**", i.e. some new characteristic that is not part of the body of existing knowledge in its particular technical field. That body of existing knowledge is called "**prior art**".
- The invention must show an "**inventive step**" that could not be deduced by a **person having ordinary skill in the art** (i.e. with average knowledge of the technical field).
- Protection is not provided to:
 - Scientific theories
 - Mathematical methods
 - Plant or animal varieties
 - Discoveries of natural substances
 - Methods of medical treatment
- Its subject matter must be accepted as "patentable" under law (i.e. **not against ordre public** etc.)

Patents

- Commercial exploitation (**professional use**)
- **Few exceptions.**
 - Prior use?
 - Experimentation?
- Term of protection: **20 years** after application
- The European Patent Convention
- Directive 98/44/EC on the legal protection of biotechnological inventions
- Unitary Patent and Unitary Patent Court

Obtaining patent protection

- Patents are granted by national patent offices or by regional offices that carry out examination work for a group of countries – for example, the European Patent Office.
- The first step in securing a patent is to **file a patent application**.
 - **Title of the invention**, as well as an indication of its technical field.
 - **The background and a description of the invention**.
- The application also contains various "**claims**", i.e. information to help determine the extent of protection to be granted by the patent.

Trade secrets

Trade secrets

- Trade secrets are used to protect processes, methods, and formulas that **must be kept secret** to give an organization a competitive edge.
- Whether through laborious and costly research, decades of experience, or a sudden burst of creativity, companies constantly develop information which can help them to perform better, faster or at lower cost.
- For example new manufacturing processes, improved recipes, or information on whom to buy from and whom to sell to.
- Information protected through a trade secret can be strategic for decades (for example, a recipe or a chemical compound), or ephemeral (for example, the results of a marketing study, the name, price and launch date of a new product, or the price offered in a bidding procedure).
- Information, knowledge, inventiveness and creativity are the raw materials of the new economy, and trade secrets are important for companies in all economic sectors.
- While large companies have the resources to manage a large portfolio of intellectual property rights, such as patents, smaller companies often cannot afford to do this - therefore their reliance on trade secrets is greater.

EU Directive on the protection of trade secrets

- Article 2(1): 'trade secret' means information which meets all of the following requirements:
 - a) it is secret** in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question;
 - b) it has commercial value because it is secret;**
 - c) it has been subject to reasonable steps** under the circumstances, by the person lawfully in control of the information, to keep it secret;

Trade secrets and information security

- 1. **Identify** confidential electronic documents (document types and categories).
- 2. Determine where they are created, who needs **access** to them, and when.
- 3. Develop information **governance policies** to manage and control access to sensitive documents.

Trade secrets and information security

- In order to obtain a patent, an invention must be new and inventive. If information about the invention has reached the public before a patent application is filed, that requirement may be compromised.
- Protecting proprietary technical solutions as trade secrets is a direct alternative to patenting.
- A company cannot do both simultaneously – patenting requires disclosure of the invention, whereas protecting an invention as a trade secret requires the opposite.
- Both options should be part of a wider **IP rights strategy**. In order to ensure that patents and trade secrets are legally protected against misuse, the way that a company handles them is important.

Trade secrets and information security

1. Which information must not be made publicly available;
2. Which information could be used in marketing;
3. Which information is critical for the company to conduct its operations;
4. Which information the company should include in its **non-disclosure agreements**; and
5. How an **employment contract** should regulate the ownership of information and transfer of IP rights.

Summing up

- Intellectual property rights protects specific information or knowledge, that fulfils the requirements of the specific IPRs, so that rightholders can control the access and use of that information, knowledge etc.
- Trade secret protection supplements intellectual property rights by providing protection against making certain secret knowledge, information etc. known to a broader circle of persons.
- For certain knowledge (inventions) there is often a policy/strategic choice whether to (continue to) rely in trade secret protection or to apply for a patent.

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