

Chapter 5

Information Law

5.1 Legal Protection of Information

Documents and the content contained therein are not exempt from the law but are protected in various ways. One of the fundamentals of an information society is its “mental constructs”—content and software—and thus requires a particular degree of intellectual property protection, as Drahos (2005, 140) emphasizes:

Intellectual property rights have a fundamental and catalysing role in a knowledge economy.

There is no all-encompassing “information law” (Kloepfner, 2002) at the moment, but there is “traditional” law that is applied to digital information (e.g. commercial property rights and copyright), as well as, sporadically, new laws that directly regulate dealings with digital information (as for example telemedia law). Different laws apply depending on the kind of information being discussed:

- Intellectual Property
 - Commercial Property Rights
 - Technical Information Patent Law and Utility Model Law
 - Aesthetic-Commercial Information Registered Design Law
 - Promotional Information Trademark Law
 - “Works” Copyright Law
- Person-Related Information Data Protection Law
- Teleservices Telemedia Law
- Accompanying Aspects
 - Sincerity Competition Law
 - Public Information Information Processing Law
 - Obligatory Copy National Library Law
- Punishable Acts Criminal Law

If an information society protects intellectual property not enough or not at all, it will be harmed by plagiarized and pirated software and content (Marron & Steel, 2000), but if it protects it too vigorously, the innovative competition in science, research and product development can suffer. The legal protection of information thus faces the task of finding the ideal middle way for a knowledge society to walk the line between protective rights and free availability.

Current law must be noted particularly in problematic instances of dealing with digital content and software, as the verdicts do not cover all details of information law (such as search engine law). Accompanying aspects for all areas of digital information are competition law and criminal law. In this chapter, we will observe some important aspects of information law from an information-scientific perspective; there will be no extensive legal treatment; for such an analysis, we must point to further literature (for “internet law” in general, Haug, 2005 and Hoeren, 2008, among others).

Commercial Property Right Law (Götting, 2007) regulates—together with copyright law—how to deal with intellectual property (Busche, 2008).

The principle of territorial limitation applies to the entirety of commercial copyright law, i.e. the protective laws only apply in the respective country (and, in an exception, in supranational constructs like the European Union) (Götting, 2007). Here, too, the priority principle applies everywhere: to receive protective rights, you have to be the first to perform (or register) a service. Internationally, the TRIPs agreement (“Trade-Related Aspects of Intellectual Property Rights”) applies, particularly because it contains regulations for the enforcement of the protective rights abroad (e.g. in case of product piracy).

In commercial copyright law, the subject of protection is the intellectual-commercial service, whereas copyright law protects a “work” as a personal intellectual creation (Götting, 2007, 40). The positive content of commercial legal protection is the rights holder’s usage authorization, its negative content the authorization for repelling copies of and attempts at exploiting the article of protection (Götting, 2007, 49). Protective rights can be traded, and the holder is able to license their usage. In commercial legal protection, there is a distinction between the two technical protective rights Patents and Utility Models and the two non-technical rights Registered Design and Trademark; for works, the (legally binding) copyright and Creative Commons must be distinguished, where the latter consists of the holders voluntarily ceding several rights (e.g. of reproduction). All documents in commercial legal protection, but not in copyright law, are recorded content-wise by the respective national bureaus as well as, additionally, by database producers via classification systems (Stock & Stock, 2008, 214 et seq.) and are available in digital form.

5.2 Technical Information: Patents and Utility Models

Inventions are protected wither by patents or utility models (Adam, Gruber & Haberl, 2008; Jestaedt, 2008a; Kraßer & Bernhardt 2008; Osterrieth 2007). Pa-

tents must prove “level of invention” that goes beyond the respective state of technology, whereas utility models (“little patents”) only require an “inventive step”. The inventions must offend neither “morals nor public order“ (§2 German Patent Law; §2 German Utility Model Law). We will begin our discussion of technical information with **patent law**. §1 Section 1 of German patent law defines the subject area of patent law as follows:

Patents are granted for inventions on all levels of technology, as long as they are new, based on an act of invention and commercially applicable.

Innovation is deemed absolute: in no way may the invention have been made publicly accessible prior to its registration (including by the inventor himself). In contrast to German patent law, the American version has a grace period of one year, starting at the time of invention. In this period, the inventor may publicly discuss his technical idea without incurring disadvantages. Knowledge is always deemed publicly inaccessible if only few people have access to it and keep it secret. If an invention is disclosed in an obvious case of abuse (i.e. if it is “betrayed” by an unauthorized person), or if it is presented in an international exhibition, a grace period of six months applies in Germany.

The novelty of an invention is negatively affected, with regard to its being granted a patent, by everything relating to the level of technology. The knowledge that is taken as the basis for judging its novelty may already have been published in other patents, in scientific literature, in company fonts etc. In one known case of a patent office rejecting an invention (by Karl Krøyer, Application N° NL6514306), the technical idea had already been similarly described in a Walt Disney comic book (its “true” inventor thus being Donald Duck, or his creator, Carl Barks). Whether Krøyer had been aware of this or not is of no consequence to the judgment of the invention’s novelty. If similar inventions are submitted within a short time of each other, the date of application or invention makes the difference. Whereas many countries (including Germany) prefer the date of submission (“first to file”), others (like the U.S.A.) use the date of invention (“first to invent”) as the decisive criterion. The date of priority is always the date of submission.

An **inventive act** is always in evidence if the service cannot be readily inferred, by an expert, from the level of technology. The service thus has—measured against the state of the art—a certain level of invention. No inventions are discoveries and scientific theories, which means that the entire area of scientific results is non-patentable. In §1 Sections 3 and 4 of German Patent Law, we read:

(3) Not regarded as inventions in the sense of Section 1 are, in particular: 1. Discoveries, as well as scientific theories and mathematical methods; 2. Aesthetic forms; 3. Plans, regulations and procedures for intellectual activities, games or business activities, as well as programs for data processing equipment; 4. The rendition of information.

(4) Section 3 only forms an obstacle to patentability in so far as the objects or activities in themselves require legal protection.

The formulation “in themselves” in Section 4 is important, as the areas mentioned may very well be subject to patent law in combination with other technical specifications (we will come back to this point in our discussion of software patents). Whereas in Germany, patents on technology are fixed with regard to a mastery over nature, technicality in the U.S.A. is defined more broadly, finally encompassing “anything under the sun that is made by men” (Götting, 2007, 108). Patentable intellectual services have the following characteristics, according to the German legal conception:

- They are technical rules for mastering nature, i.e.
 - procedures (e.g. melting processes) or
 - things: devices (e.g. machines), systems (e.g. electrical circuits) or materials (e.g. metal alloys);
- they are realizable (practically implementable);
- they are repeatable;
- they represent finished solutions;
- they “work”. The causal relationship between a technical task and its solution is established, whereas a scientific explanation is of little consequence (“the inventor must know how, not why his invention works”, Götting, 2007, 114).

The third patent criterion is the invention’s **commercial applicability**. This is given if the invention can be principally used in any given commercial area (including agriculture). Whether it is actually used makes no difference.

If the invention meets these three criteria and does not trigger any of the other reasons for exclusion (e.g. offending morals), the patent request will be granted. The patent holder thus acquires the following **privileges** as per §9 of German patent law:

The patent thus grants the holder a temporary monopoly—with a “service in return”, however: the content of the invention is to be made entirely public (“unveiled”), so that other inventors are encouraged to enter into an innovative competition with the published invention by solving the technical problems in other ways.


Patent specifications have not only a legal, but also a technical character. Furthermore, they are carriers of economic information, as they report on the technical achievements of companies and industries.

Patent protection becomes void no later than 20 years after the priority data, i.e. the date the invention was first submitted to a patent office. It can become void earlier, if the holder fails to pay his yearly fees or chooses to forego patent protection.

Patent submission is done at a patent office; at the “Deutsches Patent- und Markenamt” (DPMA, undated) in Germany and the “European Patent Office” (EPO, undated) in Europe. Additionally, there is an option for worldwide submission via the “World Intellectual Property Organization” (WIPO, undated), on the basis of the “Patent Cooperation Treaty” (PCT). An individual request must be submitted for every country (in that country’s language) in which patent protection is sought (in a simplified procedure for all member states; in a PCT applica-

tion, the first phase encompasses all desired countries, the second, national phase being run separately). All (more or less) content-identical applications form a **patent family**, where the (chronologically) first patent is called the “basic patent”.

19 BUNDESREPUBLIK
DEUTSCHLAND



DEUTSCHES
PATENTAMT

12 **Offenlegungsschrift**
11 **DE 3500761 A1**

21 Aktenzeichen: P 35 00 761.3
22 Anmeldetag: 11. 1. 85
43 Offenlegungstag: 4. 9. 86

51 Int. Cl. 4:
C 07 C 103/175
C 07 C 103/34
C 07 C 102/00

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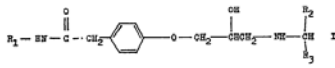
17 Anmelder:
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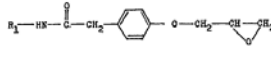
51 Verfahren zur Gewinnung von Atenolol und seiner Derivate

Verfahren zur Herstellung von Verbindungen der allgemeinen Formel I




worin R₂ und R₃ die gleiche Bedeutung wie in Formel I haben, das im großen Überschuß vorhanden ist, in Gegenwart eines polaren Lösungsmittels, am besten in einem niedrigen Alkohol, bei einer Temperatur von 40 bis 70° C und bei normalem atmosphärischen Druck so lange umgesetzt, bis sich die Ausgangsverbindung II nicht mehr löst.

worin R₁ ein Wasserstoffatom oder eine Alkylgruppe mit höchstens drei Kohlenstoffatomen bedeutet, während R₂ und R₃ jeweils eine Methyl-, Ethyl- oder Propylgruppe derart bedeuten, daß R₃ eine Methylgruppe sein muß, wenn R₂ eine Propylgruppe ist, dadurch gekennzeichnet, daß man eine Verbindung der allgemeinen Formel II



worin R₁ die gleiche Bedeutung wie in Formel I hat, mit einem Amin der allgemeinen Formel III



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Figure 5.1: Example of a German Patent Application (Title Page). Source: DPMA.

In an application, the invention must be described in such a way that an expert would be able to operate it. This part can also discuss literature known to the inventor in order to emphasize the invention's originality vis-à-vis the current state of science. Apart from this technical part, the application contains a legal part in which patent claims are made. The main claim (stated at the beginning) describes a common version of the claim of invention, whereas supplementary claims represent solution variants for the main claim and subclaims represent particular emanations of the claims. The application must contain drawings and a summary.

<p>(19) </p>	<p>Europäisches Patentamt European Patent Office Office européen des brevets</p>	 <p>(11) EP 1 273 508 B1</p>				
<p>(12) EUROPEAN PATENT SPECIFICATION</p>						
<p>(45) Date of publication and mention of the grant of the patent: 29.09.2004 Bulletin 2004/40</p>		<p>(51) Int Cl.7: B62K 25/28</p>				
<p>(21) Application number: 01202618.3</p>						
<p>(22) Date of filing: 06.07.2001</p>						
<p>(54) Rear shock absorbing assembly for a bicycle Hinterradfederung für ein Fahrrad Suspension de la roue arrière d'une bicyclette</p>						
<p>(84) Designated Contracting States: DE ES FR GB IT NL</p>	<p>(74) Representative: Prins, Adrianus Willem, Mr. Ir. et al Vereenigde, Nieuwe Parklaan 97 2587 BN Den Haag (NL)</p>					
<p>(43) Date of publication of application: 08.01.2003 Bulletin 2003/02</p>	<p>(56) References cited:</p> <table border="0"> <tr> <td>FR-A- 923 235</td> <td>US-A- 4 457 393</td> </tr> <tr> <td>US-A- 5 403 028</td> <td>US-A- 5 678 837</td> </tr> </table>	FR-A- 923 235	US-A- 4 457 393	US-A- 5 403 028	US-A- 5 678 837	
FR-A- 923 235	US-A- 4 457 393					
US-A- 5 403 028	US-A- 5 678 837					
<p>(73) Proprietor: MERIDA INDUSTRY CO., LTD. Meikang Village, Tatsun Hsiang, Changhua Hsien (TW)</p>						
<p>(72) Inventor: Tseng, Diing-Huang Tatsun Hsiang, Changhua Hsien (TW)</p>						

Figure 5.2: Example of a European Patent Application (Title Page). Source: EPO.

An application can be filed by the inventor himself or the company that employs him. In the first phase, the DPMA only performs a preliminary examination (for obvious formal or material defects). No later than 18 months after, the appli-

cation is published (for an example, see Figure 5.1), recognizable by the “A” in the number. The patent office has only added notations of the International Patent Classification (IPC; top right; the basic claim’s notation in bold type), the paper’s content has not been checked yet. In the first 18 months after filing the application, the invention’s content is thus inaccessible, which makes the situation very difficult in information practice.

The second phase of the examination of the content only begins after another application has been made (either by the original claimant or any other party), which has to happen within seven years. Only now are innovation, technicality and commercial applicability checked for. In case of a positive result, the patent office will publish the granted patent as a B-paper. The title page now contains citations, which are references to all the literature consulted by the examiner over the course of the procedure. Sound claims against the patent may be brought forward by anyone within three months of its being granted.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5630117 A (OREN et al.) 13 May 1997 Whole document.	16
X	US 5848410 A (WALLS et al.) 8 December 1998 Whole document.	16
X	US 5878423 A (ANDERSON et al.) 2 March 1999 Whole document.	16
A	US 5913215 A (RUBINSTEIN et al.) 15 June 1999 Whole document.	1-16
A	US 6012055 A (CAMPBELL et al.) 4 January 2000 Whole document.	1-16

Further documents are listed in the continuation of Box C See patent family annex

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Figure 5.3: Example of a Search Report from a PCT Application. Source: WIPO.

Applications with the **European Patent Office** (EPO, undated) proceed similarly to their German counterparts. Some differences concern the amount of countries for which legal protection is sought in a single application (one, several or all

member states) as well as the languages of the documents to be submitted (initially in one of the three official languages, German, English and French). Before a patent can come into effect in one of the member states, however, it must be translated into one of that country's official languages. In contrast to German law, only the claimant himself can begin the second phase in the EPO. The objection period here is nine months. Figure 5.2 shows the title page of a European patent with the list of countries (N° 84) and citations (N° 56).

A **PCT Application** (WIPO, undated) only has a first phase. In contrast to the practices of the DPMA and the EPO, in international (worldwide) applications citations (in the “International Search Report”) are immediately viewed and added to the application (with comments like L, X, Y–notes on problems concerning innovation) (see Figure 5.3). The national (or–when defining the EPO as the designated office–regional) phase occurs in the respective national patent offices (or the EPO). After the (usually customary) submission of the invention in his own country, the inventor has twelve months to submit the application via PCT in his own language and via his national patent office. After 18 months, the WIPO publishes the application (with a WO number) in one of its official languages (English, German, French, Japanese, Russian, Spanish, Chinese). If the paper is not available in one of these languages, it must be translated (usually English is chosen). No later than 30 months after this (in EPO applications: 31 months), the transition into the respective national phases begins (if unavailable in a language of the target country, with another translation). If a claimant foregoes the PCT, he will only have one year (and not the 30/31 months if he chooses the PCT) to submit the patent abroad.

It is possible to request an “International Preliminary Examination Report” in order to assess one's chances for being granted the patent once the application is available. In contrast to the procedure without Examination Report (named after Chapter I of the PCT, or, in short, PCT I), this variant is called PCT II (thus named after Chapter II of the PCT). PCT II procedures are the most commonly used variant of international applications (Sternizke 2009).

Since the WIPO charges independently of the number of target countries, many claimants cannot resist the temptation to check all countries available on the PCT contract instead of only the ones they want. Thus many countries on Earth “enjoy” the privilege of receiving many patent applications. If we research the actual granted patents, however (the ones that require a transition into each respective national phase), the number of inventions in some countries becomes noticeably smaller. For the purposes of internationally comparing patent statistics, this issue must absolutely be taken into consideration, as it can lead to a heavy distortion of the results.

Utility Models (see Figure 5.4) do not have to meet specifications as tough as patents'. In §1 of the German Utility Model Law, the preconditions for protection are laid out:

Inventions that are new, that are the result of an inventive step and are commercially applicable are protected as utility models.

The difference to patents is in the “inventive step”, which suggests a level of invention that does not have to be terribly high. Procedures cannot be protected by utility models. The application is heavily simplified in comparison with patents, as there is no official examination of the content with regard to innovation, inventive step and applicability. Patents are granted explicitly, utility models merely “registered”. Third parties can challenge the conditions of protection, so that a utility model provides far less legal security than a patent. Furthermore, the legal protection is limited to a maximum of ten years. As utility models are usually processed more quickly than patents, they can be applied for in addition to patents (“junction”).



(19) Bundesrepublik Deutschland
Deutsches Patent- und Markenamt

(10) DE 20 2008 001 470 U1 2008.06.12

(12)

Gebrauchsmusterschrift

(21) Aktenzeichen: 20 2008 001 470.0

(51) Int Cl.º: **B62K 21/26** (2006.01)

(22) Anmeldetag: 01.02.2008

(47) Eintragungstag: 08.05.2008

(43) Bekanntmachung im Patentblatt: 12.06.2008

(73) Name und Wohnsitz des Inhabers:
Praetorius, Martin, 29355 Beedenbostel, DE

Die folgenden Angaben sind den vom Anmelder eingereichten Unterlagen entnommen

(54) Bezeichnung: **Lenkergriff für Fahrrad**

(57) Hauptanspruch: Lenkergriff aus relativ festem Material, z.B. Holz, Kohlefaser-Kunststoff, andere Kunststoffe, Aluminium, oder ähnliches, dadurch gekennzeichnet, dass der Griff in der Länge deutlich über das Lenkerende hinausgeht und im Durchmesser viel kleiner als das Lenkerrohr wird.

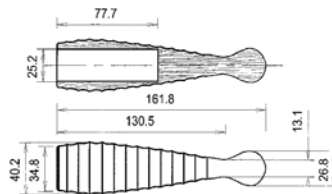


Figure 5.4: Example of a Utility Model Document (Title Page). Source: DPMA.

If granted patents or utility models are sold or licensed, they are (on application) entered into the patent register of the patent office that has granted the protection. With **licenses** (Pahlow, 2006), we distinguish between simple licenses (the rights holder foregoes protection so that the licensee can rightfully use the invention) and exclusive licenses, in which the licensee has the exclusive right for using the invention within the license’s area of validity, or can pass it on via sublicenses.

What are the **motives** that lead companies or inventors to have their innovations protected as patents or utility models (Blind et al., 2006)? Are there motives for going without patent protection? Some of the accepted motives leading to a patent application are:

- exclusive commercial usage,
- income via licenses,
- binding knowledge to the company,
- signaling (reputation, bargaining power, incentives for new recruits, performance indicator),
- strategic blockade of competitors (“blocking patents”),
- “smoke bombs”.

The main motive is the exclusive commercial exploitation of the invention by oneself. Over the period of 20 years maximum, the holder—and nobody else—has the right to use the items or procedures described in the invention and manufacture or distribute them as marketable products. However, it is also possible to generate income by licensing the patents. Institutes of higher education and freelance inventors in particular aim toward licenses instead of self-marketing. On the other hand, employees—and thus inventors—might leave their company. In order for their technical knowledge to stay on, their innovative know-how is tightly bound to the company via protective rights. The signaling power of granted patents is not to be underestimated. If a company has innovative ideas that are patent-protected, this will get provide them a good reputation, but also advantages in bargaining with suppliers and customers as well as investors. Additionally, patents provide the option of creating stimuli for one’s own personnel, e.g. to be named in the patent document. A good patent portfolio also serves as an indicator for the technological capacity of an institution.

However, the goal is not always to actually implement the invention thus protected. Patents can also serve to strategically impede competitors. Koppel (2008, 779) describes such “blocking patents”:

In the framework of a ... blockade strategy, directed toward competing firms from the same or a neighboring technology field in particular, patents are submitted with the goal of making it harder for other enterprises to either find access to complementary technologies, and thus market segments, or—in the reverse—to prevent a limitation of one’s own technological leeway in consequence of patents submitted by other companies.

The former case is termed the “offensive blockade strategy”, the latter “defensive blockade strategy” (Blind et al., 2006). A defensive blockade strategy can also be pursued via relevant scientific (or other) publications. To wit: once a publication is available, no competitor can apply for a patent for the invention expressed therein—but neither can one’s own company. “Smoke bombs” serve only to confuse the competition. They suggest that one is pursuing a certain line of research (which is

true) and that one wants to supply the respective markets (which, on the other hand, is untrue). The result is that the competition can no longer merely consult patent statistics in order to see what products are planned for the near future.

Oliver Koppel (2008, 779) stresses the economic necessity of registering an invention in all countries in which the products or services tied to this innovation can be produced or traded. If patent protection is not active, there can be no infringement on the inventor's rights.

In consequence, if a Chinese company produces goods for the American market, using know-how that is protected in Europe only, it does not break any patent law.

What motives lead companies to refrain from patenting their inventions? A disadvantage of any patent application is regarded by many to be the mandatory disclosure. The competition is thus informed pretty precisely about what a company is capable of. In order to prevent this, one uses the strategy of secrecy (Koppel, 2008, 779):

The secrecy strategy is of particular advantage in industries with ... short product life cycles. Here the company only has a few years to redeem its research investments; in comparison, the time-consuming application of a patent loses its appeal.

Secrecy presupposes that the company has loyal (and discreet) staff, who intend to remain at the company. In case of coincidental parallel developments that lead a competitor to apply for a patent, one's own work on invention and product must cease. In a study comparing the patenting and secrecy strategy, Katrin Hussinger (2004, 22) shows, firstly, that German industrial companies pursue both strategies, but that, secondly, only the patenting strategy correlates positively with the sale of new products:

Focusing on product innovating firms in German manufacturing in 2000, ... a strong positive correlation between patents and sales with new products turns out, whereas there is no effect for secrecy. ... (P)atents turn out to be the more effective tool to protect inventions in the market phase as opposed to secrecy, which is also applied by a large fraction of the sampled firms.

5.3 Aesthetic-Commercial Information: Registered Design

The legal protection of Designs is regulated by its own law in Germany (Bulling, Langöhrig, & Hellwig, 2006). It occupies an intermediate position between patent law (in the U.S.A., Designs are regarded as “design patents”) and copyright law (in France, an “*unité de l’art*” belongs to copyright law). Subject of protection are two- or three-dimensional products, or parts thereof, which are both new and have a certain “uniqueness”. Registered Design encompasses automobiles, furniture, machines (e.g. washing machines or motors) as well as (according to German law) repair parts, e.g. for use in the auto industry. Since Registered Design law is a pure registered right (for which neither novelty nor uniqueness are examined at the time of application), an examination of content only takes place in case of infringement proceedings. In Registered Design law, there is a grace period of twelve months. One can register a single design, but also apply for legal protection for up to 1,000 designs in a multiple application. The designs are structured into classes of goods, which are recorded in the Locarno Classification (Stock & Stock, 2008, 214 et seq.). They are made available to the public via the Design Bulletin (Figure 5.5) and are valid for a maximum of 25 years. Similarly to patents, it is possible to submit designs throughout the EU (via the “Office of Harmonization for the Internal Market”) or (via the WIPO) internationally, in those countries that have joined the “Hague Design Agreement”).



Figure 5.5: Example of a Registered Design. Source: DPMA.

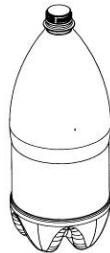
5.4 Advertising Information: Trademark Law

Trademark law protects brands, business terms and indications of geographical sources—in other words, information representing crucial elements for marketing and sales (Berlit, 2008; Campos Nave, 2008; Hacker, 2007; Hildebrand, 2008). Brands are protected by being registered, or by acquiring a reputation through usage (known or “notoriously known” brands, such as *Coca-Cola*), terms and source indications via usage. Terms are either company labels (business names or descriptions of a business process) that appear and disappear alongside “their” company, or work titles (of print products, films, pieces of music and stage productions) that are the result of publication. Essential for brands is their distinctiveness with regard to a product’s, or service’s, provenance. We distinguish between the following kinds of brands:

- word marks (including numbers and single letters, e.g. *Milka*),
- picture marks (e.g. the symbol of Deutsche Bank),



- word/picture marks (combination of word and picture, such as *Milka Lila Pause* in Figure 5.6),
- three-dimensional marks (e.g. packaging, like the typical Coca-Cola bottle design),



- color marks (e.g. the color *purple* of the company Kraft Foods for *Milka*),
- sound marks (e.g. the jingles *Wette gewonnen* and *Wette verloren* on the TV show “Wetten, dass...?”),
- cable identification thread mark (e.g. the golden thread of the company *ADO Gardinenwerke*),
- other marks (e.g. color arrangements, e.g. the colors red and green on the packaging of the coffee filter manufacturer *Melitta*).

The graphical components of picture and picture/word marks, respectively, are searchable via notations of the Vienna Classification; the classes of goods for

which legal protection is sought are taken from the Nice Classification (Stock & Stock, 2008, 215 et seq.).

We distinguish between **individual marks** (with regard to a particular provenance) from **collective marks** used by several companies, e.g. certification marks (*Fairtrade*).

Brands cannot be registered if there are **absolute grounds for refusal**. These apply to brands that cannot be differentiated. Thus for instance, the work mark *HP* is indistinguishable in the Nice Classification Class 12 (which comprises all automobiles)—after all, every car has horsepower—but it can be distinguished in Class 25 (items of clothing, footwear, headpieces). Neither can brand names that correspond to a “need to keep a trademark free” be registered. This need excludes, as brands, generic terms (*Diesel* as a brand of fuel), places of manufacture (*Park Avenue*), usage instructions (*cough syrup*), insignia (real or faked national emblems or flags) or misleading statements.


(111)	Registernummer	RN	1125335
(210)	Altes Aktenzeichen	AKZ	C37149
(540)	Wiedergabe der Marke	WM	Milka Lila Pause
(540)		Wiedergabe der Marke	 <p>The image shows the trademark logo for 'Milka Lila Pause'. It features the word 'Milka' in a stylized script font above the words 'Lila Pause' in a bold, sans-serif font. The logo is set against a white background with a thin black border. Above the logo, there are small numbers '1 125 335' and '© 1914/08/09'.</p>
(550)	Markenform	MF	Wort-/Bildmarke
	Verfahrensstand		Marke eingetragen
(220)	Anmeldetag	AT	08.12.1987
(442)	Bekanntmachungstag	BT	31.03.1988
(151)	Tag der Eintragung in das Register	ET	26.07.1988
(450)	Tag der Veröffentlichung der Eintragung	VT	31.08.1988
(732)	Inhaber	INH	Kraft Foods Schweiz AG, Zürich, CH
(740)	Vertreter	VTR	Preu Rohlig & Partner, 20354 Hamburg
(750)	Zustellungsanschrift / -empfänger	ZUE	Rechtsanwälte Preu Bohlig & Partner Warburgstr. 35 Postfach 130789 20107 Hamburg
(511)	Leitklasse	LK	30
(511)	Klassen	KL	30
(510)	Waren- / Dienstleistungsverzeichnis	WDV	Klasse 30: Schokolade, Schokoladewaren, Pralinen, feine Backwaren, Zuckerwaren
(531)	Wiener Bildklassifikation	WBK	27.01.01; 27.05.09; 27.05.10

Figure 5.6: Example of a Trademark Registration. Source: DPMA.

During the **trademark application**, there is an inspection for formal and absolute protection requirements before the trademark is published (Figure 5.6). Formal requirements are, for example, the payment of fees and the certitude that the applicant is even able to hold a trademark. Within three months, the holder of an en-

dangered trademark with an older priority date can challenge the new brand. The protection is valid for ten years, but can always be prolonged. There is an **obligation to use**. Within five years the brand must have been used for the registered product or service.

Claims for cancellation by holders of older trademarks result from cases where brand and product are identical or similar (here oriented by registered Nice Class). The following schema exemplifies the justified claims:

<i>Brands</i>	<i>Products/Services</i>	<i>In Addition</i>
identical	identical	---
identical	similar	danger of confusion
similar	identical	danger of confusion
similar	similar	danger of confusion
identical	not similar	brand's publicity is used illegally

If the old and new brands are identical *and* both are registered in the same Nice Class, the new brand must be deleted. If the Nice Classes of similar brands are also merely similar, there must be a danger of confusion between the two in order for the new brand to be rejected. This danger can be of an aural (*Zentis-Säntis*), pictorial (in picture marks, but also in similarly-looking words like *Mentor-Meteor*) or conceptual nature (*Sonne-Sun*) (Götting, 2007, 316). In independence of a similarity within a Nice Class, a new brand is denied legal protection if the (large) degree of name recognition of an existing brand is exploited unlawfully (thus the use of the brand name *Dimple*, a Whisky, was deemed inadmissible for a cosmetics product).

As in the case of Registered Designs, brands can be applied for EU-wide, via the "Office of Harmonization for the Internal Market" (OHIP). The **community trademark** thus acquired is legally protected in all member states of the European Union. The application can be submitted directly to the OHIP (in Alicante) or at the respective national patent and trademark office. On the basis of the "Madrid Contract", it is possible to submit an application for the international registration of the brand to the WIPO via one's national trademark office. The "Madrid Union" comprises more than 80 countries worldwide, among them all the most important industrial countries.

The legal protection of **domain names** is regulated by diverse laws. The following German norms may apply:

- personal names (German Civil Code: §12 BGB),
- company names (German Commercial Code: §17 HGB),
- brand names (German Trademark Act: §§14, 15 MarkenG),
- competition (German Act Against Unfair Competition: §1 UWG: Protection of Competitors and Consumers, §3 UWG: Prohibition of Unfair Competition)

Generally speaking, a domain name is given to whoever first applies for it. In contrast to trademark law, the awarding of domain names knows no need for keeping domains free, which can easily lead to generic terms like "sex.com" being used. In disputes about domains, a brand name, work title or company label is a good argument for being granted the pertinent domain name, but only if the brand is sin-

gular (which does not have to be the case, as wares from different Nice Classes can have the same word mark). However, this holds exclusively for business use. If a private individual (who wants to protect his or her own name) and a company (with a similar-sounding registered trade mark) are in dispute, name protection is pitted against trademark law (according to the BGB). The case is analog in a dispute between two private individuals who can both invoke §12 BGB. In this case, it seems possible that a famous bearer of a well-known name could enforce their claim against another bearer who is completely unknown (thus in the proceedings of Krupp AG against a Mr. Krupp, which was ruled in favor of the company). Legally dubious are instances of **domain grabbing**, i.e. of registering a domain name before the holder of a trade mark or name or the owner of a company can do so.

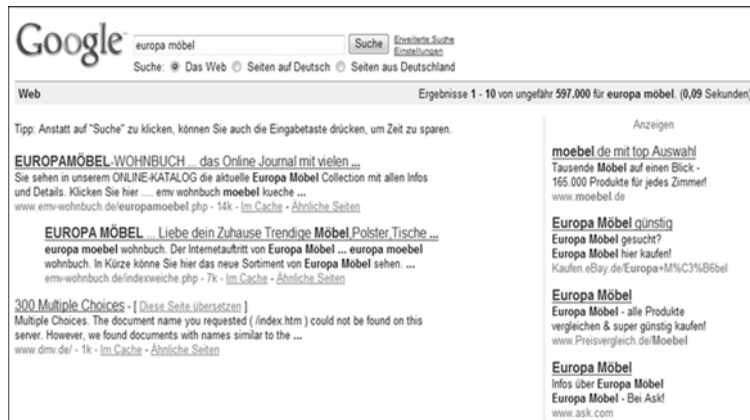


Figure 5.7: Trademark Law Problem: AdWord, which Partially Clashed with a Brand. Source: Google (Search Argument: “Europa Möbel”; registered brand: Europa Möbel; none of the hits in AdWord lead to the brand holder).

Since more and more users do not type URLs into the browser window, but use search engines in order to get to websites, the search arguments and their counterparts in the websites and—in case of context-specific advertising—the auctioned advertising terms are increasingly significant. **Keyword grabbing**—i.e. the use of registered terms either on one’s own website (sometimes also hidden in the meta-tags, or, as “word stuffing”, written in white on white background, invisible on browsers) or as search arguments for “sponsored links” (as in Google’s AdWords) is another practice that poses problems for trademark law. Grabbing terms protected by trademark law falls, if there is a danger of confusion—at least if intent can be proven—under unfair competition and is thus illegal. The case becomes a little problematic if the AdWord does not match the word mark exactly but only partially. *Europa Möbel* is a registered trade mark; a competitor uses *Möbel* as a key-

word on Google AdWords. In this case, the competitor's ad will appear among the "sponsored links" if someone searches for *Europa Möbel* (not via phrase search) (Figure 5.7). Here, according to German law, it is possible that the trademark holder can move the competitor to change this (e.g. by adding the excluding search argument *Europa Möbel*) (Ott, 2008). However, there is no clear and comprehensible line of judgment in this area.

5.5 Works: Copyright Law

Copyright law grants works legal protection as individual intellectual creations (Hertin, 2008; Lettl, 2008; Reh binder, 2008). Copyright applies automatically, i.e. legal protection does not have to be explicitly applied for as in the case of commercial protective rights. Among the protected works from literature, science and art are literary works (compositions and speeches, but also computer programs), music, dance, visual art, photography, film and scientific-technical images (e.g. pictures or charts). When someone publishes a **work on the internet** (e.g. as a website or blog entry), copyright applies, as it does for all works. Computer programs are also (as "literary works", though not including the ideas and principles underlying them) subject to copyright. The author, as "creator" of the work, is granted a monopoly on his own intellectual property, particularly the right to determine if and how his work is to be published. Additionally, he has the right for his authorship to be recognized, meaning that the user of a work is obligated to always clearly state the source he uses (in a scientific work, for instance, in the form of a reference).

In Germany, copyright law has been adjusted—at least officially—to the demands of the information society via "Basket 1" (2003) and "Basket 2" (2007).

According to §15 of German Copyright Law, the author has three rights of exploiting his work "physically", being

- reproduction rights (§16 UrhG),
- distribution rights (§17 UrhG),
- exhibition rights (§ 18 UrhG)

as well as fourthly—but in "non-physical" form—public communication rights (§19 UrhG), in the form of lectures, presentations, performances, (broadcast) transmissions and making it available on websites.

This positive content of copyright law corresponds to its negative content of denying other parties these rights. Not only the work as such is protected, but also its revised or otherwise rearranged versions. However, once adaptations (e.g. translations or "liberal adaptations" of the original) that are intellectual creations of the persons responsible for them are available, these are protected in the same way as the original work. Outside of these rights, a work can be freely used. In science, accordingly, thoughts or even word-for-word passages can be taken from a work and put into a new one, as long as author and source are named. Otherwise, there is "intellectual theft", i.e. plagiarism.

Copyrights are always limited rights, after the expiration of which—in Germany (according to §64 UrhG), this happens 70 years after the creator’s death—the work enters the public domain, and can thus be used by anyone. These terms have been and are constantly being drawn out: where they used to stipulate 30 years, they were prolonged to 50 and finally 70, securing a generation of the author’s descendants the rights to his work. For databases (Derclaye, 2008), the protection expires (according to §87 UrhG) as early as 15 years after their publication.

Copyright has **limitations**. Private and scientific usage are regulated by §53 UrhG, according to which single reproductions for private consumption are permitted, on any medium, as long as they serve no commercial purpose. §53 Section 2 defines further limitations in detail:

It is permitted to produce or have produced single reproductions of a work

for one’s own scientific usage, if and as far as reproduction is justified for this purpose and serves no commercial ends,

for adding it into one’s personal archive, if and as far as reproduction is justified for this purpose and one’s own copy of the work is being used as the basis of the reproduction,

for one’s personal edification concerning daily news, if the work is being broadcast,

for any other personal usage

if it concerns small parts of a published work, or single contributions, appearing in newspapers or magazines,

if it concerns a work that has been commercially unavailable for more than two years.

Scientific as well as archival purposes are clearly the beneficiaries. Small parts of works (e.g. journal articles) can also be copied for one’s own professional and commercial usage. If a work has been unavailable for more than two years, it can be copied. The freedom to make copies for one’s private or commercial usage must not be confused with freedom of charge; customers do have to pay for any copies they make.

The reproduction and distribution of articles from the press is acceptable. This regulation, which is important for the compilation of **press reviews**, is codified in §49 Section 1 UrhG:

The reproduction and distribution of single broadcast comments and articles as well as images published alongside them, from newspapers and other information organs that merely serve topical interests, in other newspapers and information organs of this kind as well as the public rendition of such comments, articles and images is acceptable if they

address political, economic or religious daily concerns and if they are not subject to protective rights. The author is to be adequately compensated for the reproduction, distribution and public rendition of his work, unless it is a case of reproduction, distribution or public rendition of short excerpts from several comments or articles in the form of an overview.

This claim can only be averred by a collecting society. This regulation also holds for electronic press reviews (Glas, 2008). Copyright also applies to **libraries**. For publicly accessible libraries (such as school, city or university libraries), certain privileges exist, but not for libraries of private enterprises (e.g. company libraries) (Knaf & Gillitzer, 2008). According to §52b UrhG, **electronic reading areas** are permitted, which are used exclusively in the premises of the institution for the purposes of research and private study. Simultaneous access to works is only possible in the amount stipulated by the library's stock. Although not specifically mentioned in the law, it may be assumed that scanned books (which are in fact physically available in the library) can also be viewed in the reading areas. Consumer rivalry in the digital usage of scientific works is artificially created here via the restricted simultaneous access (Kuhlen, 2008, 368 et seq.).

Electronic key texts, i.e. the digital availability of single contributions or smaller works for a limited circle of users for scientific research, are in accordance with §52a UrhG. If entire books are to be made available as electronic key texts, the library must be in possession of each respective book and make the digital version available via their electronic reading areas only.

If a work requested by a user not present in the library, it can be procured from other libraries via interlibrary loan or document delivery. §53a Section 1 regulates **copy dispatch** on request:

For individual orders, the reproduction and transmission of single contributions published in newspapers and magazines, as well as small parts of a published work via mail or fax by public libraries is acceptable, as long as usage by the orderer is permitted as per §53. The reproduction and transmission in any other electronic form is only acceptable as a graphic file and by way of illustrating lessons or for purposes of scientific research, as long as it is justifiable in the pursuit of non-commercial activities. The reproduction and transmission in any other electronic form is further only acceptable if access to the contributions or small parts of a work is not made obviously available to the public from places and at times of their choosing via a contractual agreement at acceptable conditions.

The formulation becomes somewhat cryptic at the end. The sending of copies via mail or fax, always available for all customer groups, is clear. Electronic delivery to commercial customers is out of the question. For research or teaching purposes,

electronic copy is permitted (with graphic files), but only if the publisher does not formulate an “obvious” and “acceptable” pay-per-view offer. The obviousness is operationalized by highlighting the work in databases (e.g. the attestation of the journal “Information Processing & Management” in the database “ScienceDirect” by the publishing house Reed Elsevier), the acceptability via “the usual price”. It looks as though publishers are being granted a distribution monopoly over their digital products (Kuhlen, 2008, 396 et seq.). Libraries and document delivery services are on the safe side, legally speaking, if they negotiate contracts with the publishers that regulate the digital delivery of single articles from journals, magazines or anthologies.

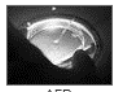
Technical measures, such as copy protection mechanisms on a CD or DVD may not be circumvented following §95a UrhG, but §95b allows for limitations on copyright (like the permitted reproductions for research). The software in use for Digital Rights Management would thus have to be able to recognize whether an acceptable limitation is in place in each individual case. The question of how far this can be implemented technically seems to be totally open. §§95a-d cannot be applied to computer programs (§69a, Section 4). Software cannot be copied at all, unless it is to create a backup copy for securing further usage (§69d).

An author must accept these limitations, but there is a **duty for remuneration**. Operators of copying machines or institutions with a high copying volume, i.e. libraries (Schmitt, 2008), performing artists, commercial enterprises etc. pay a fee to the respective **collecting society** (Hertin, 2008, 208 et seq.), e.g. in Germany the collecting society (VG) WORT for authors of literary works, the Society for Musical Performance and Mechanical Reproduction Rights (GEMA) for composers, songwriters and music publishers, and the Society for the Assertion of Film and Television Rights (GWFF) for filmmakers. The respective society then distributes the proceeds proportionately to its members. The Presse-Monitor GmbH (PMG), an establishment of German publishers and publishers’ associations is responsible for the distribution of articles from the press. It licenses articles for further use in electronic press reviews and serves as VG Wort’s collecting agency.

Insignificant in terms of copyright are **links** to homepages of external websites. This goes for any website and also for search engines (which give out links in their hit lists) (Ott, 2008). However, it is impossible to integrate foreign content as a file on one’s own website (e.g. via frames) without the author’s permission, as the users would not notice that the content is from another site. “Deep Links”, i.e. links that do not lead to a homepage but to a certain site “deep” within the web presence could cause problems. As the homepage is being circumvented (perhaps containing ads or other information that are of importance for the owner of the website) a legal problem will—in exceptional cases—arise (Oppenheim, 2008, 946).

A borderline case of permissible usage of content protected by copyright is in the adoption of **titles and sentences** or sentence fragments, as well as of thumbnails of images in news search engines (Figure 5.8). The admissibility of **thumbnails** in image search engines is deemed to be resolved at the moment, while the adoption of texts is open and depends on each individual case. Google has agreed a licensing contract for its “Google News” with the French news agency “Agence

France Presse” (AFP) and other agencies, which regulates the use of titles and sentence fragments (Ott, 2008).



Une femme de 59 ans accouche de triplés à Paris

AFP - Il y a 17 minutes

PARIS (AFP) — Une femme de 59 ans a donné naissance à trois bébés en bonne santé dans la nuit de samedi à dimanche à la maternité parisienne de Port-Royal ...



Aubry lance un appel à Delanoë, favori des sympathisants PS

AFP - 7 sep 2008

PARIS (AFP) — Martine Aubry a estimé qu'elle-même et Bertrand Delanoë avaient "l'essentiel en commun", assurant "attendre" le maire de Paris en vue du ...

PS: Mauroy demande aux dirigeants de "faire attention" à l'éclatement AFP

Université d'été de La Rochelle: brouillard persistant au PS AFP

Les socialistes englués dans une inquiétante guerre des chefs AFP

AFP - AFP

[973 autres articles >>](#)

Figure 5.8: Copyright on Headlines, Single Sentences and Thumbnails of Images from News Agencies and Newspapers. Source: Google News.

Are infringements on copyright “theft”? Is there even such a thing as **pirate copies**? Jan Krömer and Evrim Sen (2006) argue for the decriminalization of copyright infringements. They are not instances of theft at all; a more fitting appellation would be “bootleg copies”. Let us just take a look into the German Criminal Code. In §249, “theft” is defined as follows:

Whoever uses violence against an individual, or threats that represent a current danger for that person’s life or health, in order to take away from that person a foreign physical object with the intention of unlawfully appropriating said object for himself or a third party will be punished with a prison term of no less than one year.

Thus, firstly, theft has to do with violence, and secondly, a third party is deprived of a product—neither of which is given in instances of piracy. Violence against a person is no an issue at all, and the owner is not deprived of anything, since a copy is made and nothing else. Infringements on copyright, however, cannot be ruled out.

If someone infringes on copyright, the rights holder has a claim for **compensation** (§97 UrhG). The following claims are stated:

- removing the infringement,
- (in case of a danger of repetition) forbearance,
- in case of intent or negligence on the part of the offender:
 - compensation or
 - forfeiture of profits,

and additionally (also in case of intent or negligence) compensation for immaterial damage (to provide “satisfaction”).

5.6 Creative Commons and Copyleft

While copyright law protects the rights holder and only grants users certain rights in exceptional cases (which become less and less over time), “Creative Commons” (CC) and “Copyleft” place the focus on the user without providing the author with any material recompense (unless stating his name count as such). Creative Commons and Copyleft have no legal status, but are understood as a contract between author and user (Mantz, 2006, 57 et seq.). If the user breaks this contract, the still active copyright is asserted. Creative Commons were established in 2001 by Lawrence Lessig in particular (see e.g. Lessig, 2003), and are regarded as an excellent basis for the free distribution of digital content on the internet. Role models, in a way, were the free software licenses, such as GNU General Public License—often described “copyleft” as they complement copyright.

Let us make a quick sketch of the conception of **Copyleft!** This concerns the conditions of free usage of software Stallman (2004[1996], 91) defines:

Copyleft is a general method for making a program free software and requiring all modified and extended versions of the program to be free software as well.

If a software is under a Copyleft license, it may be used freely (even commercially), copies may be distributed for free or for a fee, the source code being always included. Programs derived from the original software must also be Copyleft-licensed. If this “inheritance” of free usage is not given, we speak of **Open Source**.

As information provider, one uses **Creative Commons** to define the (legal) degree of content protection oneself (O’Sullivan 2008). The tiered licensing contracts enable content providers to no longer have to choose between full protection (“all rights reserved”) and none at all but instead make a sophisticated decision in what form their product should be protected. If next to the obligatory naming (BY), a processing of the work (No Derivative Works) should be allowed but no commercial usage (Non-Commercial: NC), a specific licensing variant is available. Another variant would be to allow transmission under identical conditions (Share Alike: SA).

These licenses can principally be applied to all works and all content that are the result of creative processes, be it texts, photos, images, audio and video files, multimedial content, websites, blogs or other advertising and information materials.

							Licenses
Copy	Dissemination	Public performance	Attribution	Derivation	Commercial	Share alike	
○	○	○	BY	○	○	○	
○	○	○	BY	○	○	● SA	
○	○	○	BY	● ND	○	○	
○	○	○	BY	○	● NC	○	
○	○	○	BY	○	● NC	● SA	
○	○	○	BY	● ND	● NC	○	
○	Freedom		Obligation	●	Constraint		

Figure 5.9: Creative Commons Licenses and Their Usage Conditions. Source: Linde & Ebber 2007, 49. Abbr.: BY = Naming of Author, SA = Transmission Under the Same Conditions, ND = No Processing, NC = No Commercial Usage.

5.7 Legal Protection of Software

At first glance, the situation in German law seems clear: computer programs are subject to copyright law (§§69a-g UrhG), programs for data processing systems are excluded from patents “as such” (§1 PatG). In the European Union, this is handled analogously; in the U.S.A., the case is different entirely: here, software can be patented without any restrictions (as long as it serves a useful and technical purpose). According to the German and European conception of the law, software lacks the criterion of technicality, as the code (written in a programming language) makes it a “literary work”. Thus, in Europe, it is not possible to protect the idea underlying the software, as copyright forbids the copying of CD-ROMs, but not the usage of the procedure described on them (Stock, 2001).

<p>(19)  Europäisches Patentamt European Patent Office Office européen des brevets</p>	 (11) EP 0 771 280 B1
<p>(12) EUROPEAN PATENT SPECIFICATION</p>	
<p>(45) Date of publication and mention of the grant of the patent: 16.02.2000 Bulletin 2000/07</p> <p>(21) Application number: 95926306.2</p> <p>(22) Date of filing: 18.07.1995</p>	<p>(51) Int. Cl.⁷: B60T 8/88</p> <p>(86) International application number: PCT/US95/09001</p> <p>(87) International publication number: WO 96/02411 (01.02.1996 Gazette 1996/06)</p>
<p>(54) METHOD AND SYSTEM FOR DETECTING THE PROPER FUNCTIONING OF AN ABS CONTROL UNIT UTILIZING DUAL PROGRAMMED MICROPROCESSORS</p> <p>VERFAHREN UND SYSTEM ZUM FESTSTELLEN DES KORREKTEN FUNKTIONIERENS EINER ABS-STEUEREINHEIT UNTER BENUTZUNG VON ZWEI PROGRAMMIERTEN MIKROPROZESSOREN</p> <p>PROCEDE ET SYSTEME DE DETECTION DU BON FONCTIONNEMENT D'UN ORGANE DE COMMANDE D'ABS A L'AIDE DE DEUX MICROPROCESSEURS PROGRAMMES</p>	
<p>(84) Designated Contracting States: DE FR GB</p> <p>(30) Priority: 18.07.1994 US 276344</p> <p>(43) Date of publication of application: 07.05.1997 Bulletin 1997/19</p> <p>(73) Proprietor: KELSEY-HAYES COMPANY Livonia, MI 48150 (US)</p> <p>(72) Inventor: HORNBACK, Edward, R. Dexter, MI 48130 (US)</p>	<p>(74) Representative: Avery, Stephen John et al Hoffmann Eitle, Patent- und Rechtsanwälte, Arabellastrasse 4 81925 München (DE)</p> <p>(56) References cited: EP-A- 0 322 141 EP-A- 0 496 509 DE-A- 4 137 124 GB-A- 2 019 622 US-A- 5 243 607</p> <p>• ATZ, vol.93, no.7/8, August 1991, STUTTGART, DE pages 406 - 414, XP267526 STÖCKER ET AL. 'ZUVERLÄSSIGKEIT VON ELEKTRONISCHEN BAUTEILEN IM AUTOMOBIL'</p>

Figure 5.10: Example of a Patent on a Computer-Implemented Invention. Source: EPO.

In legal practice, the situation is far more relaxed. Pure source code cannot be patented, in accordance with the law; however, if software makes a technical contribution, a patent is usually granted. The European Patent Office (EPO, 2008, 16) observes:

(T)he EPO grants patents for many inventions in which software makes a technical contribution, such as a novel and inventive computer-controlled process operating a robot arm, enhancing a graphic display, controlling data storage between memories or routing diverse calls through a telephone exchange in respond to demand.

Other processes, such as Internet retailing, though involving the use of a computer, are not patentable in Europe, whereas such processes are often patented in the USA.

Hence, computer-implemented inventions can be patented in Europe (and in Germany),

- if they have a technical character and solve a technical problem
- and if they represent a new inventive contribution to the current state of technology (for an example, see Figure 5.10).

Hence, if computer-implemented inventions solve an economic (and not simultaneously technical) problem, no patent will be granted.

The legal protection of software thus knows several co-existing mechanisms in practice:

- patent (on a computer-implemented invention): Idea is protected; duration: at most 20 years,
- literary work (copyright): Reproduction and distribution rights, among others; duration: up to 70 years after the author's death,
- Copyleft (and related Open Source licensing models): Free usage.

5.8 Person-Related Information: Data Protection Law

“Data Protection” does not protect data, it protects people from an abuse of their person-related information (Kühling & Sivridis, 2008; Wohlgemuth & Gerloff, 2005). In Germany, the significance of person-related information has been recognized early; there has been a state law in Hesse since 1970, which the Federal Republic emulated in 1977. The purpose of the Federal Data Protection Law is defined in §1 BDSG:

The purpose of this law is to protect the individual from being impaired in his personality right by use of his person-related information.

The law applies to all public areas of the Republic and of the states (if they do not have their own data protection laws), as well as to all non-public institutions, if these manage information electronically. There is a specific pointer (in §3a BDSG), in the sense of “data economy”, to compile as little information as needed, or none at all, about persons, and, if necessary, to use anonymity. Every person has the following rights with regard to their person-related information:

- disclosure (on application),
- correction of incorrect information,
- deletion (if the information is saved unlawfully),
- blocking (if the deletion is subject to retention periods).

The compilation of person-related information is always admissible if the person in question has agreed to it. §13 BDSG names a series of further kinds of admissi-

ble compilation, including when legal regulations demand it or the data in question is obviously of a public nature. For purposes of address trade, **advertising** or market research, the compilation, processing and (in case of a justified interest on the part of the buyer) the transmission of specific data (such as name, age, profession, address) is also possible. In §29 Section 1 BDSG, we read:

The commercial compilation, storage or editing of person-related data for the purposes of transmission, particularly where it serves advertising, the operation of credit agencies, address trade or market and opinion research, is admissible if

there is no reason to suppose that the individual in question has an interest worthy of protection in the exclusion of compilation, storage or editing, or if

the data can be drawn from publicly accessible sources, or if the responsible authority is permitted to publish it, unless the individual's interest worthy of protection in the exclusion of compilation, storage or editing obviously outweighs these concerns.

Subject to particular protection are further person-related information, e.g. concerning political opinions, religious beliefs, criminal acts or sex life. Here the respective authority must be able to prove the veracity of the knowledge concerning the person in question.

Data preservation in the context of the so-called “telecommunication surveillance” is regarded as problematic, since in this case, public bodies are granted access to certain person-related information with no particular reason to seek them. This concerns the recording of traffic data from any telecommunication (e-mail, internet, telephone) over a period of six months. Not among the saved data is the content, transmitted and received; neither are the URLs of visited websites (Gitter & Schnabel, 2007).

The **right to one's own image** is regulated by §§22-24 of the German Law on the Protection of Copyright in Works of Art and Photographs (KunstUrhG) (Lettl, 2008, 308 et seq.). Apart from the paragraphs concerning portrait rights, this law was repealed in 1965. Accordingly, images may only be distributed with the express consent of the person portrayed, allowing said person to control how they are being represented in public. The law states the following exceptions (in §23 KunstUrhG):

Without the express consent required after §22, the following may still be distributed and exhibited:

images from the area of contemporary history;

images depicting a person as accessory to a landscape or other locality;

images of assemblies, demonstrations or other procedures that the portrayed individuals participated in;

images that have not been made on commission, as long as their distribution or exhibition serves a higher artistic interest.

The Federal Republic's (and several states') **Law for Information Transparency** goes beyond person-related information (Schoch, 2008). According to this law, everybody has the right to access to any kind of official information from each respective regional authority—but not, without their consent, to files containing person-related information about third parties. In many countries worldwide, there exists such an information freedom. The U.S.A. established its “Freedom of Information Act” as early as 1966.

For the content of a **Web document**, person-related information of others must be taken into consideration, as here, too, of course, data protection applies (Czink, 2006). This regards all manner of Web documents, starting from one's own website and going via blog and message board entries to the uploading of images and videos on collaborative Web services, including any comments made on them. The right to one's own image also applies on the WWW, and is applicable in photosharing services (e.g. Flickr), videosharing services (e.g. YouTube) and social networking services (e.g. Facebook), for example.

5.9 Content on the Internet: Telemedia Law

The Telemedia Law (Heckmann, ed., 2007) regulates the handling of information content provided via “telemedia” (i.e. the internet). This regards private websites as well as commercial web offers; access providers, service providers and search engine providers are also bound by this law. All “business-like” telemedia are subject to an unrestricted **imprint duty** (stating of name, address, e-mail, entry in the commercial register, register of associations or the like, sales tax identification number; §5 Section 1 TMG). For commercial communication via e-mail, the commercial character of the message and the sender must be clearly recognizable, which would—provided a correct application of the telemedia law—largely prevent the occurrence of **spam**.

The **liability for content** lies primarily with the respective provider, and secondarily with providers of

- information transmission according to §8 TMG (access providers),
- intermediate storage for faster information transmission according to §9 TMG (Proxy Cache Providers), information storage according to §10 TMG (Host Providers, Search Engines, among others).

The responsibilities are defined in §7 TMG:

Service providers are responsible for their own information, which they keep ready for usage, according to the general laws.

Service providers in the sense of §§8 through 10 are not required to monitor the information transmitted or stored by them, or to investigate circumstances that point to unlawful conduct. Requirements for the removal or blocking of the information according to the general laws will stay untouched following §§8 through 10, even in the case of the service provider's unliability. The telecommunications secrecy according to §88 of telecommunication law is to be preserved.

As long as service providers have no knowledge of unlawful information in the sense of §§8-10, they are not responsible for said information. The situation changes, however, at the moment that they are informed about such content. For services following §§9-10 TMG, the providers must immediately remove the information in question or block access to them. For algorithmic search engines (such as Google), Sieber and Liesching (2007, 22) observe:

The search engine provider must—and he is able to—remove the information stored by himself, particularly in the case of judicial or administrative decree.

According to §86 of the Criminal Code, the distribution of propaganda materials for anti-constitutional organizations is prohibited in Germany. If a website contains such material, and Google has been notified of it, for instance, access to it must be blocked in the German version of Google (Figure 5.11: Google.de removes two, technically appropriate, documents from the hit list).

This holds, analogously, for sponsored links (e.g. AdWords). If the advertising texts and search arguments are being checked by the search engine provider, the providers are co-responsible for any unlawful information (such as trademark abuse); if the ads are not checked, the responsibility is cancelled and the search engine provider only has to act once he is informed of any violations.



Figure 5.11: Censorship on Google.de. Source: Google (Search Query: Adolf Hitler "Mein Kampf").

Various service providers dispose of person-related information. As long as it is technically possible and reasonable, a provider must facilitate usage of telemedia

and payment for them in an anonymous, or pseudonymous, fashion (§13 Section 6 TMG). Person-related inventory data (which are necessary for the specification of contracts) and usage data (features for identifying the user, statements concerning beginning and end of usage as well as its extent, statements concerning telemedia made use of) may be employed for access and billing purposes as well as advertising, market research or the customized design of the services (but only while using pseudonyms). As previously mentioned for telecommunication surveillance, law enforcement agencies can request this data. The telemedia law extends the circle of “competent authorities” for inventory data (but not for usage data) in §14 Section 2, however:

The service provider may disclose information about inventory data in individual cases if ordered to do so by authorized bodies, as long as it is required for purposes of criminal prosecution, the averting of dangers by the states’ police forces, fulfilling the legal obligations of the federal and state constitution protection agencies, federal intelligence services or the military counter-intelligence service, or for the assertion of intellectual property rights.

What is interesting here are the claims of private individuals or of companies to assert their copyright or their entitlement to commercial legal protection. If there is a suspicion of trademark or copyright infringements, for instance, service providers must pass on the inventory data of their customers to the respective claimant.

5.10 Adjacent Fields of Law

The **competition law** (Jestaedt, 2008b; Köhler & Bornkamm, 2007) regulates the **fairness** of markets. The Law Against Unfair Competition (UWG) serves the following purpose (§1 UWG):

This law serves to protect competitors, consumers and any other market participants from unfair competition. At the same time, it protects the general public’s interest in an unadulterated competition.

All acts that influence the competition to the competitors’, consumers’ or any other market participants’ disadvantage are inadmissible according to §3 UWG. Unfair are, for instance, misleading advertising and unacceptable nuisances.

The uncalled-for sending of **e-mails** for competitive purposes after §7 UWG is one such “unacceptable nuisance” and thus anti-competitive (Altermann, 2006). If the recipient has given his explicit consent to being thus addressed, we speak of a “request”. There is one single exception: e-mail advertising is admissible if the

advertising company has received the e-mailing address via selling a product or service, the ad regards similar products, the customer has not vetoed this usage of his mailing address but can still do at any time.

In search engine advertising, such as Google AdWords, advertising clients purchase search arguments by auction, which by being clicked result in costs for the advertiser. It is possible to settle on a maximum daily budget, which after being exceeded will result in the ad being pulled from the site. If a competitor instigates massive amounts of clicks on a company's ads, that company will be harmed via increased costs (which result in no gains) and—once the maximum daily budget has been reached—the pulling of the ad. Such a **click fraud** at the expense of a competitor collides with §4 N° 10 UWG, which stipulates that a person acts unfairly if they impede competitors (Kaufmann, 2005).

If a user acquires content or software from a commercial provider online, he is granted no **right of objection** (§312d Section 4 BGB)—in contrast with the right to return products in distance contracts usually contained in the Civil Code (§312 Section 1 BGB). This means that bought information goods cannot be returned. From time to time, hosts will protect themselves with additional coverage by defining “general terms and conditions” (GTC). Thus we can read, in the GTC of GENIOS:

As far as there is a right of revocation according to §§312b et seq., this will expire as soon as the user has begun downloading files.

The **Reuse of Information Law** (IWG) is supposed to motivate providers (particularly commercial ones) to develop digital information services on the basis of information compiled and stored by public bodies (Hopf, 2007). **Public institutions** are indeed significant information producers, we need only consider official statistics, commercial protective rights, legal texts or geological data. IWG §2 Section 3 defines this “reuse”:

Reuse (is) any kind of information that goes beyond the accomplishment of a public task and generally aims at generating a fee ...

Hence, it does not involve the one-to-one marketing of public information by the corporate sector; rather, commercial information providers are encouraged to create new, “enriched” information products. Thus, for example, legal texts (compiled in public institutions) can be submitted to an online host (let's say: Juris, or LexisNexis), which will then link these texts to any relevant verdicts they concern. Or, it is possible, that the DPMA leaves the full texts of its patent documents to a commercial database provider (such as Derwent or Questel), which will then furnish it with a specific added value via elaborate retrieval systems (e.g. the offer of a patent-informetric functionality).

It is safeguarded, via laws concerning the **German National Library**, that media works published in Germany will be collected in the German National Library (DNB) in their entirety. “Media Works” are representations in writing, image and sound, which are made accessible either in “physical” (i.e. on paper, electronic or other data carriers) or in “non-physical form” (in public networks) (DNBG §3). There is, according to §14 DNBG, a duty to disclose all media works, excepting films (in which music is not the most important ingredient) and works available via broadcast only. The duty to disclose concerns whoever has the right to distribute the media work in question (e.g. publishing houses) and a business location, production units or main residence in Germany. The Decree for the Obligatory Surrender of Data (PflAV) makes it clear that the **obligatory copies** to be submitted to the DNB include both physical and non-physical works—thus including all publications on the World Wide Web. Excluded from the duty to disclose are, among others, private websites, communication and discussion instruments with no technical or personal aspects as well as e-mail newsletters without archival function (PflAV §9). As the decree does not state clearly which Web works specifically fall under the PflAV and which do not (for instance, it remains unanswered whether and how many posts on weblogs must be disclosed), any practical dealings with the PflAV will require an arrangement with the DNB.

5.11 Information Criminal Law

Work accomplished on the computer as well as the publishing of content on websites can result in criminal prosecution. We would like to separate the pertinent paragraphs of the Criminal Code into the two areas of Computer Criminal Law (Hilgendorf, ed., 2004) and Content Criminal Law.

Computer Criminal Law regulates, in §§202a through c StGB, the **scouting for** and **interception of** data (computer espionage), penalizing both these activities and the production of pertinent computer programs. Hacking into foreign computer systems (including “phishing” for passwords), and generally using information not intended for third parties and furnished with particular protection against unauthorized access, is illegal. **Forgery of evidential data** (such as certificates) via data processing is deemed just as deceptive as non-digital falsification (§270 StGB). In **computer fraud** (§263a StGB), not a human being but a computer system is being “scammed”. This can involve the usage of an ATM with a fake debit card. §263a StGB particularly involves all cases of economic crime, which provide the perpetrator with an “illegal pecuniary advantage” via

incorrect program design, usage of incorrect or incomplete data, unauthorized usage of data or any other unauthorized action to influence the running (of a data processing program).

Computer fraud is thus closely linked to theft, embezzlement or misappropriation of funds. **Data changes** (§303a StGB) and **computer sabotage** (§303b StGB) are criminal acts. Data changes refer to the deletion, suppression, rendering unusable or changing of content, thus extending the concept of property damage to information. The central paragraph is §303b on computer sabotage:

Whoever substantially obstructs a data process that is of substantial importance to another person, by
committing an act following §303a Section 1,
entering or transmitting data (§202a Section 2) with the intention of causing another person a disadvantage or
destroying, damaging, rendering unusable, removing or changing data processing equipment or data carriers,
will be punished with a jail term of up to three years, or by having to pay a fine.
If it is a data process of substantial importance for a foreign company, a foreign enterprise or an administration, the penalty will be a jail term of up to five years or a fine.

In particularly grave scenarios, a jail term of up to ten years may even be applied. Computer sabotage involves not only the destruction of hardware, but also of software and content, thus including all manner of viruses, Trojans or bots that harm the working of foreign computers.

Depending on **content**, it is possible that aspects of criminal law will be touched upon. Thus according to §86 StGB, it is forbidden to distribute content by **anti-constitutional organizations** that “go against the liberal-democratic constitution”. Likewise, “simple” pornographic texts and performances may not be transmitted via telemedia, according to §184c StGB, unless “this pornographic performance is inaccessible to persons under the age of 18 years”, i.e. if some effective age verification system is in place to safeguard youth protection. Always prohibited is the distribution of **porn** that contains depictions of violence, sexual acts of humans and animals (§184a StGB) as well as depictions of sexual abuse of children (§184b StGB)—in the case of the latter, even purchase and ownership are illegal. Children are defined as any persons under the age of 14 years. Content on websites, in blog entries, message boards, comments for images, videos etc. that represents **insults**, defamation, libel or slandering the memory of deceased persons is illegal under §§185 et seq. StGB.

5.12 International Information Law?

How are cases to be regarded if they touch upon several countries' legal conceptions? A classical example of a conflict between different letters of the law regards Yahoo!. According to French law Yahoo! acts illegally if its search engine (yahoo.com) offers fascist literature, while according to U.S. law, and a current court decision, the company can ignore the French ruling (Oppenheim, 2008, 951). Michael Saadat (2005) reports:

The French Court held that blocking French access to www.yahoo.com was technically possible, and that because www.yahoo.com could be viewed by French citizens, it came within the jurisdiction of France. It ordered Yahoo! to comply, or face penalties. Yahoo! sought a declaratory judgement that the "French Court's orders are neither cognizable nor enforceable under the laws of the United States." On 7 November 2001, Judge Fogel granted Yahoo!'s request for declaratory judgement. Substantively, this was to be expected. U.S. courts have previously denied enforcement of foreign judgements that have been deemed incompatible with the U.S. Constitution, including enforcement of foreign defamation judgements.

The law, and thus also information law, is national; providers in the information economy thus often act internationally. Outside of international agreements (such as TRIPs), conflicts regarding the definition of what makes "good law" can in no way be excluded.

5.13 Conclusion

Only available in the printed version.
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