# IT Law & Ethics

Rosenheim Technical University of Applied Sciences - SoSe 2023 - 1/3

Dr. Matthias Orthwein, LL.M. (Boston)

# Agenda part 1

**01**     Legal Basics „light"

**02**     Basic legal knowledge: Copyright

**03**     Copyright and AI

**04**     Who owns Data?

# Dr. Matthias Orthwein, LL.M. (Boston)

**since 2014**
Lecturer for IT and data protection law at Rosenheim University of Applied Sciences

**since 2011**
Attorney and partner at SKW Schwarz Rechtsanwälte

**2003 - 2011**
Attorney at a large German commercial law firm in Munich and Düsseldorf

**2003**
Doctorate (Dr. jur.) at the University of Münster

**1999 - 2000**
Master studies American Law (LL.M.) in Boston, USA

**1993 - 1999**
Studies in Saarbrücken, Poitiers (France) and Bonn

**Personal**
Married, one son
"zuagroaster" alpine fan

**Areas of activity**
Digital transformation

**Competencies**
- IT law, especially software contract law and IT outsourcing projects
- E-commerce and social business
- National and international data protection law issues
- Translator between techies and lawyers

**Languages**
English, French

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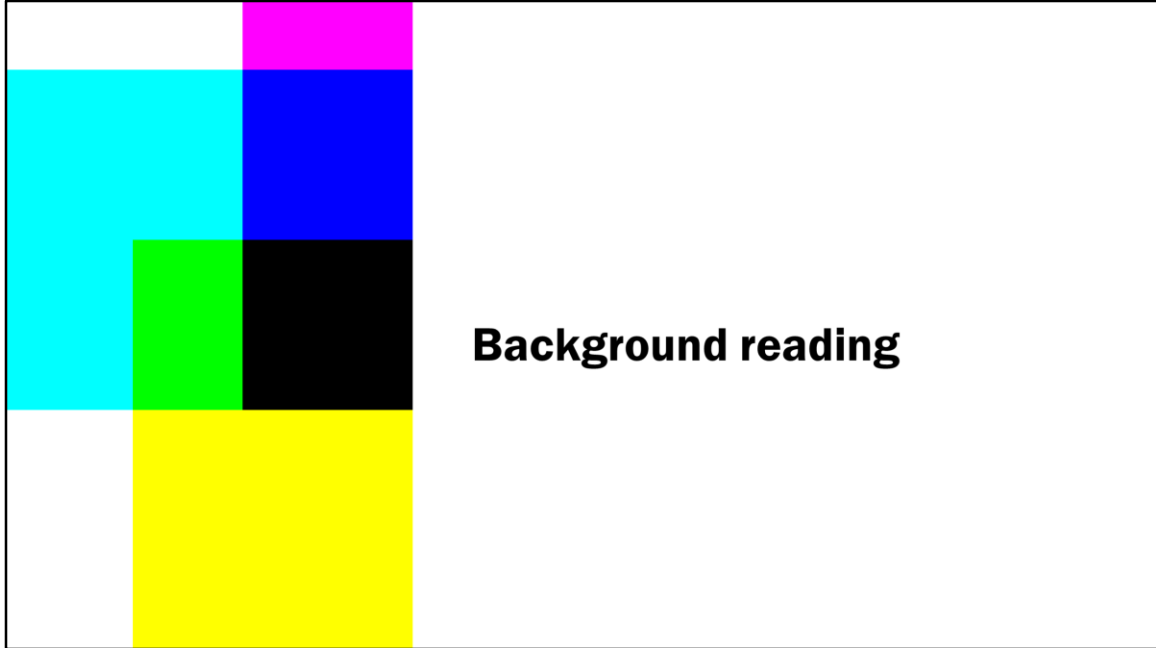
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**Background reading**

# Recommended background reading & legal texts:

→ **Recommended background reading:**

- **eBooks on IT Law and on InternetLaw** (both updated October 2019), *Hoeren, Univ. Muenster*: https://www.itm.nrw/en/lehre/materialien/

→ **Legal texts:**

- General Data Protection Regulation (GDPR)
- German Civil Code (Buergerliches Gesetzbuch – BGB)
- German Copyright Act (Urhebergesetz – UrhG)

*Online source: https://www.gesetze-im-internet.de/Teilliste_translations.html*

# Abbreviations

| | | |
|---|---|---|
| AGB | Allgemeine Geschäftsbedingungen | GTC |
| AktG | Aktiengesetz | Stock Corporation Act |
| BDSG | Bundesdatenschutzgesetz | Federal Data Protection Act |
| BGB | Bürgerliches Gesetzbuch | German Civil Code |
| BGH | Bundesgerichtshof | Federal Court of Justice |
| BSIG | Gesetz über das Bundesamt für Sicherheit in der Informationstechnik | Act on the Federal Office for Information Security |
| BVerfGG | Bundesverfassungsgerichtsgesetz | Act on the Federal Constitutional Court |
| DSGVO | Datenschutzgrundverordnung | GDPR |
| EnWG | Gesetz über die Elektrizitäts- und Gasversorgung | Electricity and Gas Supply Act |
| EuGH | Europäischer Gerichtshof | ECJ |
| GeschGehG | Gesetz zum Schutz von Geschäftsgeheimnissen | Trade Secret Act |
| GG | Grundgesetz | Basic / Constitutional Law |
| GmbHG | Gesetz betreffend die Gesellschaften mit beschränkter Haftung | Act on Limited Liability Companies |
| GoBD | Grundsätze zur ordnungsmäßigen Führung und Aufbewahrung von Büchern, Aufzeichnungen und Unterlagen in elektronischer Form | Principles for the proper keeping and storage of books, records and documents in electronic form |
| HGB | Handelsgesetzbuch | Commercial Code |
| LG | Landgericht | Regional Court |
| OLG | Oberlandesgericht | Superior Court |
| OWiG | Gesetz über Ordnungswidrigkeiten | Act on Regulatory Offences |
| SGB | Sozialgesetzbuch | Social Code |
| UKlaG | Gesetz über Unterlassungsklagen bei Verbraucherrechts- und anderen Verstößen | Injunctions Act (for Consumer Rights and Other Violations) |
| UrhG | Gesetz über Urheberrecht und verwandte Schutzrechte | Act on Copyright and Related Rights (short: Copyrights Act) |
| UWG | Gesetz gegen den unlauteren Wettbewerb | Act against Unfair Competition |
| ZPO | Zivilprozessordnung | Code of Civil Procedure |

**1** AI basics – What are we talking about?
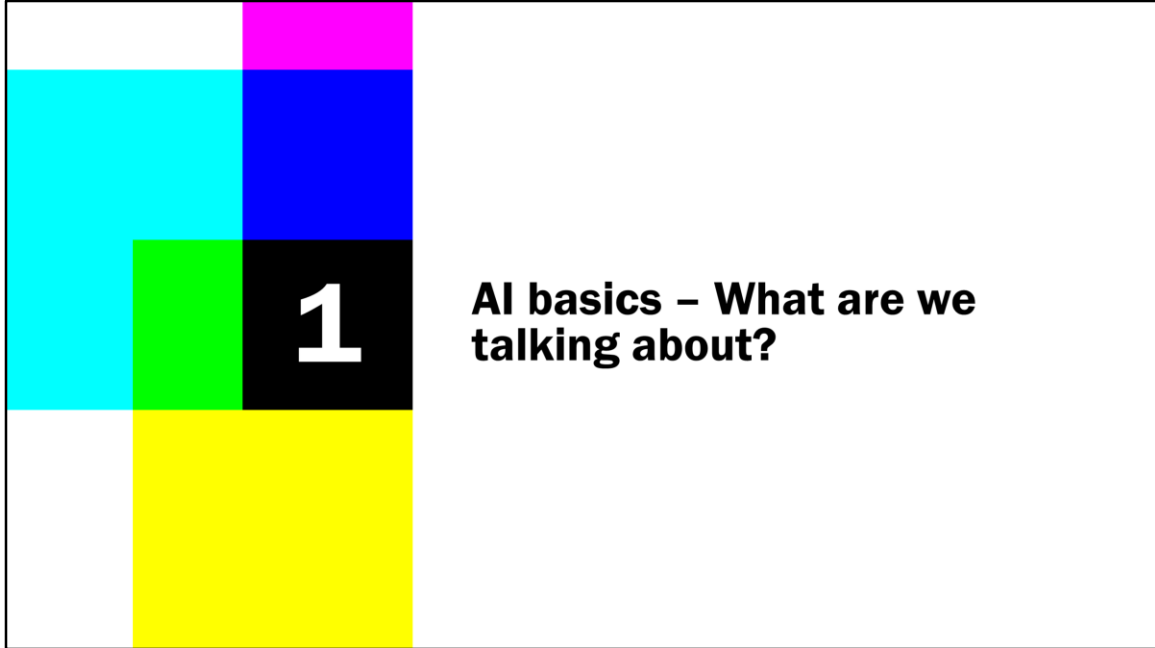
# A little trip into the past

**1936:**
British mathematician Alan Turing lays the foundation for artificial intelligence with his "Turing machine". With this computing machine, he proves that it would be able to execute cognitive processes.

**1956:**
The term "artificial intelligence" is coined at a conference held at Dartmouth College in the US state of New Hampshire by the programmer John McCarthy.

**1966:**
The first chatbot that communicates with humans was invented by the German-American computer scientist Joseph Weizenbaum from the Massachusetts Institute of Technology.

# Hypes of the last years with AI technology

## Wolfram Alpha
## (developed 2005, hype: 2009)

→ Computational knowledge engine

→ Delivery of results and analysis of data

→ Example functions:

- Arithmetic operations
- Information on nutritional values of food
- Special feature:
  Evaluation of Facebook profiles
- Image analysis

## Siri (2011), Alexa (2014),
## Google Assistant (2015) & Co
## (Hype: ca. 2016-2019)

→ Voice assistants

→ Respond to voice commands from users

→ Example functions:

- Control of devices and services
- Answering questions from the user

# Wolfram Alpha vs. ChatGPT

### Chatbots

- Chatbots use machine learning to understand human language. They learn to understand messages and context with every chat.
- Increasing use, e.g. in online stores, for assistance in the support area

### Lensa 2018, Hype: 2022

- AI-based photo app that generates custom artworks generated with the help of photos.
- Users can use selfies to create avatars, action figures, elves or the like of themselves.

### ChatGPT-3 Hype from OpenAI
### Hype: 2022

**Google Bard currently only accessible for restricted users**

- „**Chat**bot **G**enerative **P**re-trained **T**ransformer"
- Voice and text based chatbot
- Communication with users in a natural language
- Example functions:
  - Answer questions
  - Source of inspiration
  - Pre-structuring of texts
  - Writing software code

# 2 Legal basics „light"
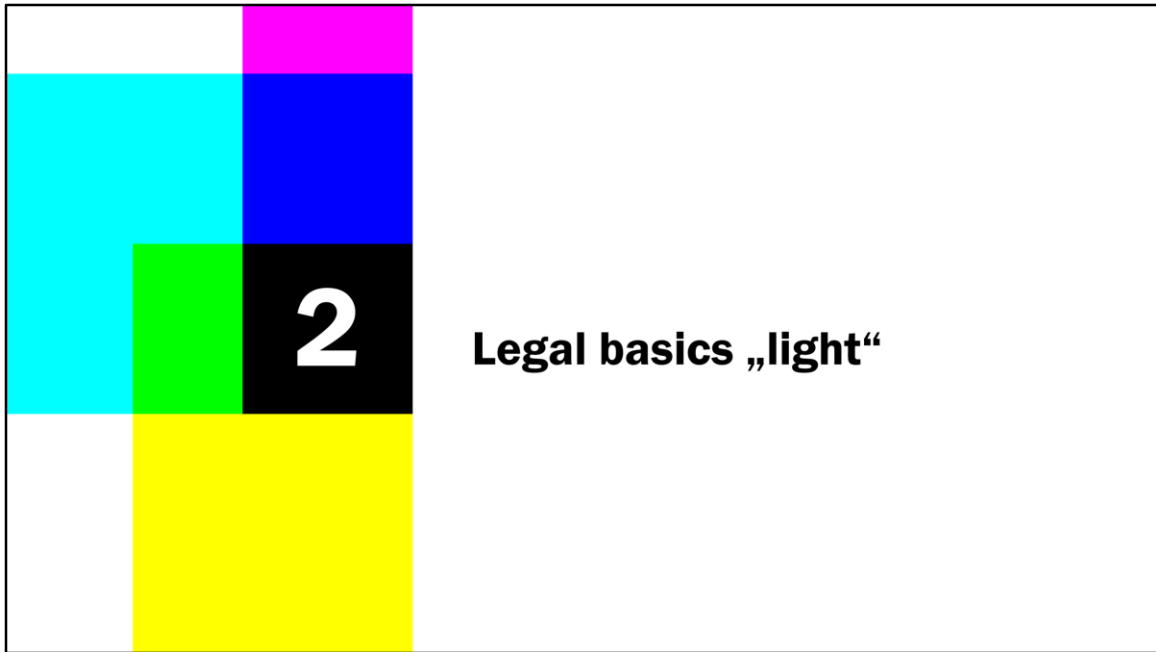
# What is a law?

## Germany

→ **Law („Gesetz"):**
General regulation adopted by a parliament

→ **Ordinace („Verordnung"):**
General regulation by authority on the basis of a law

→ **Administrative act („Verwaltunsakt"):**
Individual regulation by authority on the basis of a law or ordinance.

## EU

→ **Regulation („Verordnung"):**
Directly identical application in all member states

→ **Directive („Richtlinie"):**
Sets minimum standards, member states must implement it, but are allowed to be more stringent as well

**Which takes precedence: beer tax law or BGB?**

Special law takes precedence over general law

- EU/GG
- Federal Law
- State law
- Municipal law
- Administrative Acts
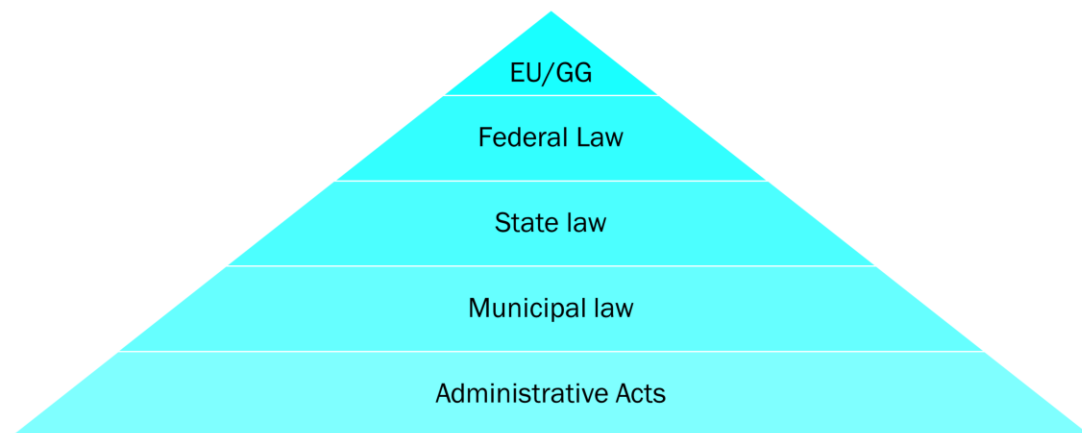
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Beer Tax Act of July 15, 2009 (BGBl. I p. 1870, 1908), as amended by Article 1 of the Act of June 16, 2011 (BGBl. I p. 1090)

International law (e.g. UN Sales Convention) can be introduced into national law by law at the same level. It then applies like a national law.

EU law and the Basic Law (GG) complement each other.

Art. 30 GG: Legislation and administration are the responsibility of the Länder, unless: the Basic Law assigns this power to the Federation (also applies in parallel to EU law).

## What are the areas of law?

Public law (e.g. traffic tickets, university admissions)

Contract law (contract law, law of damages, etc.)

- Commercial law for merchants (less need for protection)
- Consumer protection law (more need for protection)

Criminal Law

Note:
Special law for merchants: Commercial Code (HGB)
Special law for consumers: e.g. AGB or UWG

# Who's got the power?

Bundestag, police or the Munich Higher Regional Court?

| **Legislators (Bundestag/Landtag):** | **Authorities (e.g. police):** | **Courts:** | **Special role of the Federal Constitutional Court:** |
|---|---|---|---|
| Establishes the general rules of conduct through laws | Apply the laws in individual cases to the citizen | Check whether the application by the authority complies with the law<br><br>In contract law: Whether a contract complies with the law | Reviews all three (law, administrative acts, and court rulings) for consistency with German constitution (Grundgesetz) |

# Who cares about the Traunstein District Court?

→ In contract law (dispute between citizens), the court makes a binding decision on the dispute at hand

**Important:** Without direct binding for third parties

→ Specific judgments can be overturned or corrected by upper instance

Still no direct binding for third parties

| Local court | District Court | Higher Regional Court | BGH |
|---|---|---|---|

→ **Special case Federal Constitutional Court:**
Not a superinstance for all court rulings, but decides on constitutional conduct of legislature, administration or courts

Limited legal force of a judgment:
Personal: § 325 ZPO
Content: § 322 ZPO

Notice:
Judgments of the Federal Constitutional Court may even have the force of law, i.e. have a direct effect on all citizens, § 31 (2) BVerfGG.

# What prevails - law or contract?

**Can laws be nullified by contract?**

**Principle of freedom of contract:**
In contract law, the will of the contracting parties is paramount

**Except: Mandatory law cannot be changed via contract**
(e.g., no exclusion of liability for intentional harm)

**Supplemental:**
If there is nothing in the contract, the law applies

# How to read a law?
Example

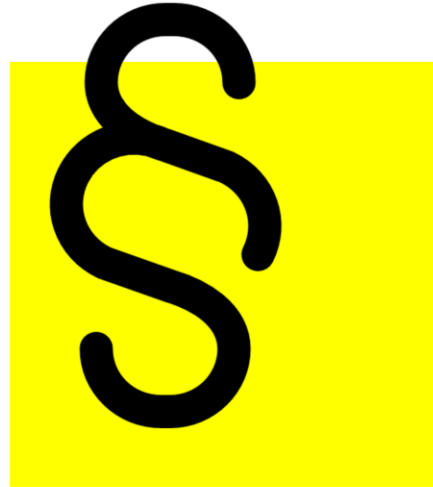**Fairness in the contract:**

**§ 242 BGB**

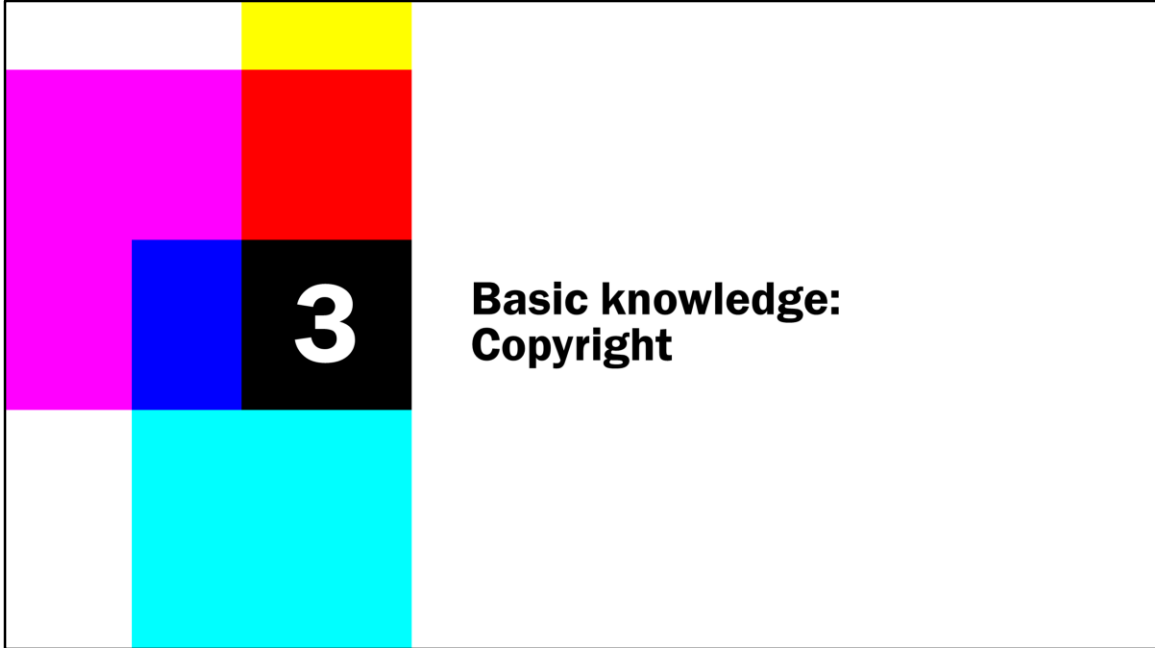The debtor is obligated to effect performance in such a way as good faith requires with regard to custom and usage.

**Translation:**
**You just don't do certain things!**

**Problem:**
Social norms change (e.g. prostitute contract)

# 3 Basic knowledge: Copyright

# Basics - Copyright

Copyrights always exist in a **work**

They are vested in the **creator** (the author) of the work

Exception: Employer is entitled to employee's output

Copyright law includes, among other things

- the **author's moral rights** (the right to be named as "author")

- **Exploitation right**s (the author's right to use and exploit the work).

The moral right is **not transferable**

Otherwise, rights of use and exploitation can be granted by contract = license

In the USA also total buy out = sale of the author's rights

# Copyright - Object of protection

Database/collection of works
§ (2) UrhG

technical / scientific
presentation
§ 2 (1) no 7 UrhG

Linguistic work
§ 2 (1) no 1 UrhG

**Work:**
**personal spiritual creation**
**§ 2 para 2 UrhG**

Film work
§ 2 (1)
no 6 UrhG

Computerprogram
§§ 69a, 2 (1)
no 1 UrhG

Musical work
§ 2 (1) no 2 UrhG

Picture work
§ 2 (1) no 4 UrhG
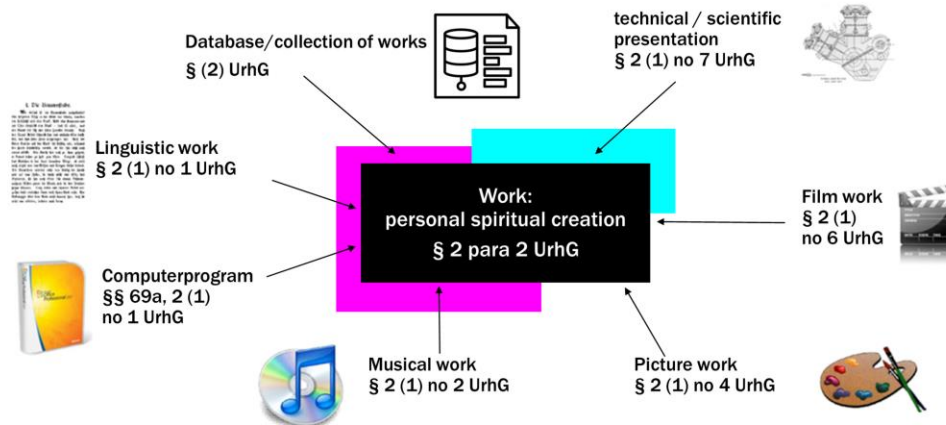
# Copyright - Content of the copyright

| Moral right | Exploitation rights | Performance rights | Other copyrights |
|---|---|---|---|
| • Publication<br>• Recognition as author<br>• Prohibition of distortion | • Duplication<br>• Distribution<br>• Exhibition<br>• Performance<br>• Making available to the public<br>• Broadcasting rights<br>• Playback by image/sound carrier<br>• Editing and redesign | • Scientific editions<br>• Performing artists<br>• Record producer<br>• Broadcasting company<br>• Database producer<br>• Press publisher | • Access to the workpiece<br>• Resale right<br>• Remuneration for renting |

# 4 Copyright and AI
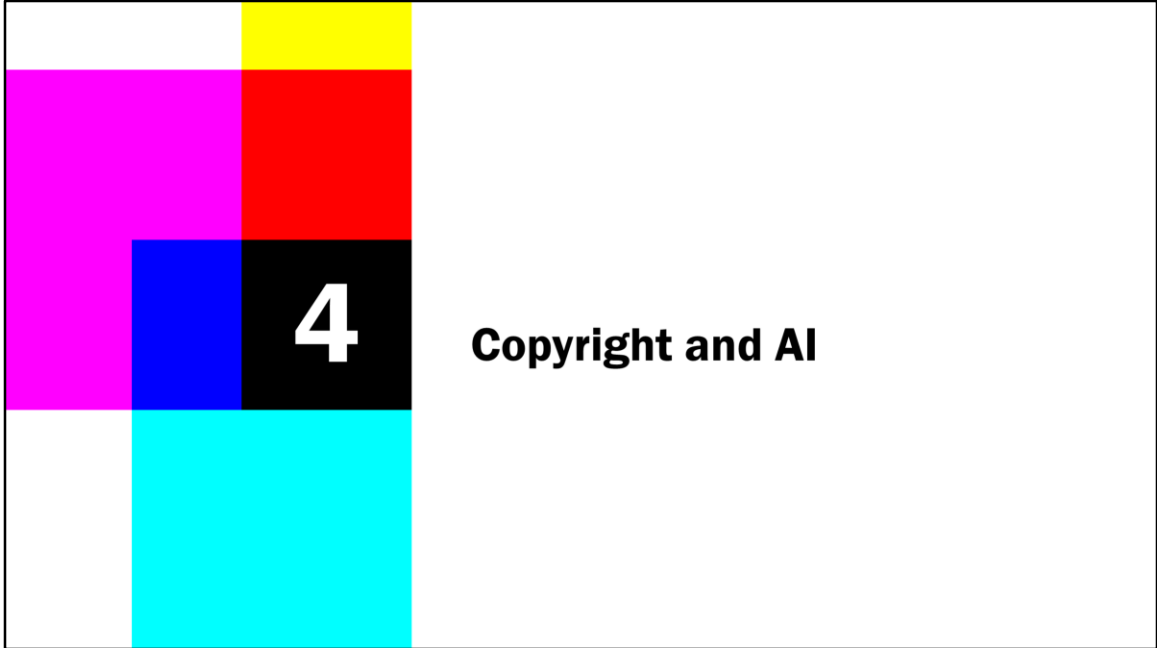
## Basics - Software as subject of contract (1)

BGB recognises things and rights as object of contracts (see §§ 90, 453 BGB).

### Things

- are physical objects (CD, monitor), whether solid, liquid or gaseous

- What is physical? Water? Light? Electricity? Data?

### Rights

- are justified claims or powers

- Can arise by law (patent) or contract (promissory bill)

- must be transferable (right to name?)

– Common goods like free air or running water are not things. But: bottled water or bottled gas can be things
– Light and electricity are not delimitable things (RGZ 86, 14)

## Basics - Software as subject of contract (2)

→ **data carrier** on which the software is embodied (CD-ROM, hard disk, USB stick):
**unproblematic matter**

- What about the program data itself?

- Problem online submission, master copy etc.

**Software is treated like a thing!**

→ **But:**
A "thing" that embodies the know-how of its manufacturer,
but the thing is only usable for the one who also has the right to use and exploit this know-how = **license.**

Note: no bona fide acquisition of software because of copyright

## Copyright - Software as subject of protection

Computer programs according to § 69a UrhG

Subject of protection according to § 69a UrhG:

→ Computer programs (not software):

All works that can be traced back to a specific author and contain a sequence of program instructions that are used to control or direct the course of the program

→ Includes also design material, as well as adaptations, modifications or processing of already known other programs, incl. object and source code.

→ In addition, language works from the development environment can also be protected if they have sufficient originality ("individuality"): e.g. documentation, interfaces, or XML files.

→ Not copyrighted: Ideas, principles, HTML codes, websites, programming languages, file formats.

• However, possibly as a trade secret

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§ 69a UrhG

On programming language and file format (=no computer program) and code implementing the programming language (=computer program), ECJ of 2.5.2012 - Rs C406/10 - SAS Institute.

For XML files, see LG Frankfurt/Main, judgment of November 8, 2012, 2-03 O 269/12, 2/03 O 269/12, 2-3 O 269/12, 2/3 O 269/12.

# Copyright - Software as subject of protection

Artificial intelligence (AI) as creator (1)

→ **AI in programming**

- Usually, the formulation of requirements and planning is regularly made by people

- Automated software development and AI coding use AI to assemble pre-built modules and test against requirements over and over again until an acceptable body of work is created

- The programming itself no longer uses any human creativity, but rather machine learning

- Human creativity, however, is in the development of the algorithms and the training of AI

→ **Different approaches to authorship:**

- Formulation of requirements and planning of AI deployment sufficient for authorship?

- "operator" of the AI starts and stops the AI and should therefore be the creator (but: can he control it?)

- AI "developers" as co-authors by training the AI?

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# Copyright - Computer as author

Artificial intelligence (AI) as creator (2)

**What is copyrightable?**

→ § 2 (2) UrhG: personal intellectual creation of a human being

→ Excluded: Accidental creation; found objects, works of animals

→ Necessary: sufficient individuality (formerly "level of creation") that can be attributed to the creator

**AI is (currently) not copyrightable:**

→ The human development contribution (requirements formulation, starting the AI) lacks sufficient creative power and individuality

→ Mere training of the AI does not lead to its programming to a specific planned result, but only to the parameterization of the algorithm

**KI creation is therefore "in the public domain" = may be used by anyone except:**

→ Protection as a trade secret (as long as the algorithm and the deep learning result are not published).

→ AI has only subordinate tasks in the human creative process (e.g. autocomplete of pre-programmed codes)

# AI and the creation - ChatGPT as the creator?

**AI is not a creator**
Missing the personal intellectual creation of a man.

**AI result may though violate rights**
Anyone who adopts AI Result in their creative process takes responsability for it.
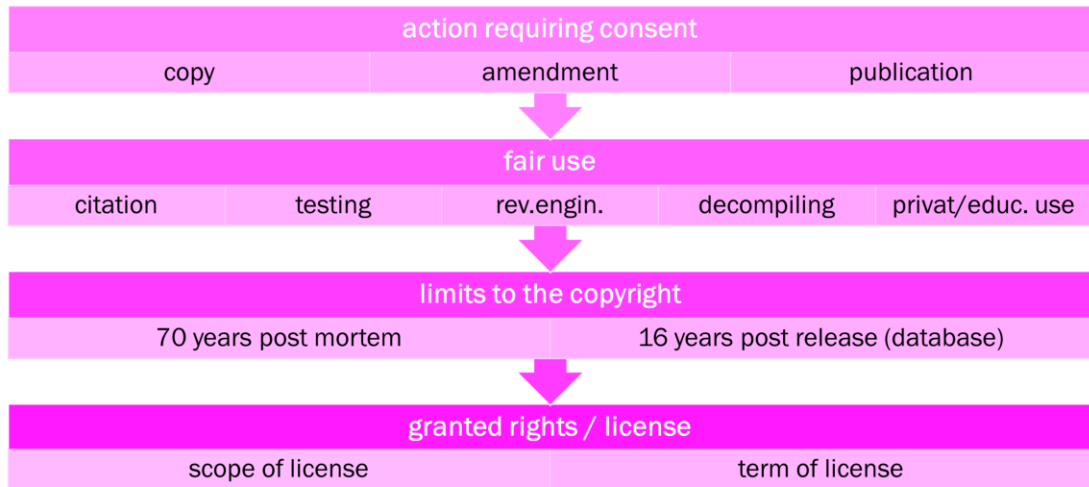
Copyright protection

**Prompt Engineer is not a creator (yet?)**
Lacks the creative achievement and individuality for the necessary level of creation.

**AI does not prevent creation**
Merely subordinate contribution to human creativity as inspiration does not prevent copyright protection.

# Copyright – limits and infringement

| action requiring consent | | |
|---|---|---|
| copy | amendment | publication |

| fair use | | | | |
|---|---|---|---|---|
| citation | testing | rev.engin. | decompiling | privat/educ. use |

| limits to the copyright | |
|---|---|
| 70 years post mortem | 16 years post release (database) |

| granted rights / license | |
|---|---|
| scope of license | term of license |

# AI as an infringer?

Training can be "fair use" - the result is still dangerous!



*An illustration from Getty Images' lawsuit, showing an original photograph and a similar image (complete with Getty Images watermark) generated by Stable Diffusion.* Image: Getty Images

Source: theverge.com, 06.03.2023

## Copyright: Types of rights of use

**Exclusive right of use:**

Owner may use work by excluding all other persons in the manner permitted to him and grant simple rights of use to third parties

- creator may also no longer use his own work

- The holder of the right of use is entitled to pursue infringements of rights itself

**Single right of use:**

Owner may use in the permitted manner without excluding others from such use

Distinction from sole right of use, if author alone remains authorized to use alongside (exclusive) right holder

# Copyright: Structuring of rights of use

Rights of use should be aligned with the need for use

| Content framework | Time frame | Regional framework | |
|---|---|---|---|
| **Content framework**<br><br>• How may the work be used?<br><br>• Who may use the work? | **Time frame**<br><br>• limited in time<br><br>• unlimited | **Regional framework**<br><br>• Germany<br><br>• Europe<br><br>• World | In case of doubt, only those rights shall be deemed to be transferred which are necessary for the purpose of the contract (transfer purpose rule) |

# Copyright: License violations

## Important:

→ Before any use of a copyrighted work, it is necessary to check whether there is an unbroken chain of licenses up to the author of the work, which allows exactly the intended use (type and extent)!

→ especially with open source / use of third party components

## For use without right of use:

→ Claim of the actual rights holder for **injunctive relief** and **damages** (fictitious license fee, also in the case of open source)

→ **Criminal liability**
(up to 3 years imprisonment,
in the case of commercial activity:
5 years and fines)

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§ 97 ff. UrhG
§§ 106ff. UrhG

## Scope of simple rights of use - Types of licenses

**Types of licenses differ according to the group of authorized persons:**

→ Single user license
→ Network license
→ Named user
→ Concurrent user
→ Floating user
→ Company License (Problem: Company Succession)
→ Group license
→ License for renting/rental

On Company License cf. Berger, GRUR 2013, 321

## Copyright - Protection of algorithms

protection as a trade secret?

→ Information can have extreme value for companies without also having creative character (therefore not protected by copyright) or disclosure would make it worthless (therefore no application as patent)

→ Protection of **business secrets by GeschGehG**, if

- they are secret
- therefore have an economic value and
- are the subject of **appropriate confidentiality measures.**
- Secrecy is maintained technically (IT security), organizationally (authorization concept) and legally (NDA)

→ If protected, the owner can demand **injunctive relief/destruction** and **damages from** the copier, as with an IP, but also **personal liability for inadequate protection**

→ Algorithms, Big Data applications, workflow representations can also be subject to prohibitions and licenses.

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GeschGehG implements a corresponding EU directive on trade secret protection in Germany since March 21, 2019, which actually had to be implemented since May 2018. The EU law therefore already applied since mid-2018, and since March 2019 the specific rules have also become German law and must therefore be observed directly.

The owner of the GeschG can prohibit others from using it (cease and desist) and demand both destruction of the copies and compensation for damages. However, the managing director is also personally liable if he does not take sufficient measures to protect himself.

Reverse engineering is permitted under GeschGehG if it is not contractually prohibited (must therefore be regulated in license agreements)
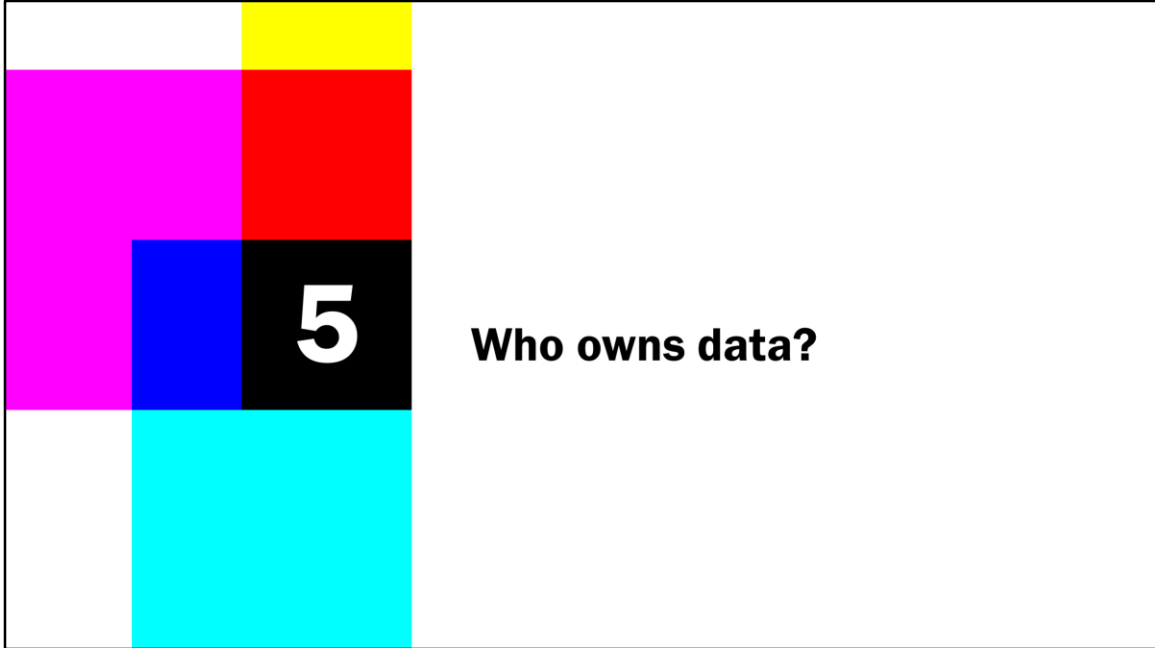
5 Who owns data?

## Who owns data? – is there an ownership in data?

→ **Property within the meaning of the BGB/GG**

- the right to exclude others from the disposal/use of a thing or a right

- And to dispose of it at will

- BUT: Subject of property can be only **one thing**, data allow parallel use by many

- *Example: Owner of the smart device cannot dispose of the data on his device as an owner would*

→ **Copyright**

- Exclusive use rights give the holder rights like an owner (exclude others and free disposal)

- BUT: Copyright protects only **software** (§ 69a UrhG) and complete **databases** (§ 4 (2) UrhG), not individual data

- *Example: Structured tables for setting machines are protected as a database, the individual setting value is not*

→ **Privacy**

- Data protection gives the data subject the right to prohibit and allow others to process his or her personal data

- BUT: Law allows many data processings even without consent of the data subject, which an owner would not have to tolerate (Art. 6 (1) DSGVO)

- *Example: Entrepreneur can statistically evaluate addresses of his current customers without their consent*

Criminal law and GeschGehG also protect the integrity and the value of the confidentiality of data from unauthorized access - but do not give any unrestricted right of disposal of their own

# Who owns data?

Data "belongs" to the person who can dispose of it

**There is no ownership of data**

→ Data ownership is not yet provided for in the German or European legal system

→ Data is not tradable per se

**It gives the person authorized to dispose of data**

→ Whoever controls access to data (e.g., the interface, sensor, or smart device) can effectively dispose of it like an owner

→ The right of disposal can be commercialized = payment with data
(§§ 312 I a, 327 III BGB)