Data as a vital asset: who owns it?

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What is data?

- **Data** is “a reinterpretable representation of information in a formalized manner suitable for communication, interpretation, or processing” (ISO/IEC 2382:2015)
- Data is **non-rivalrous**, **non-exclusive** and **inexhaustible**
- It may be re-used without losing its **quality** but it may still lose **value**.
Between 2014 and 2015 the value of the European data economy has risen from 257 Billion Euro to 272 Billion Euro and is expected to reach **643 Billion Euro** by 2020.

Data is the new “intellectual capital of companies” and the raw material of digital production.
Data has become a vital company asset

“There’s an entire ecosystem of things and services that the smart home can deliver once you have a rich map of the home that the user has allowed to be shared,” (Colin Angle, Roomba CEO)

“Dust isn’t the only thing your Roomba is sucking up. It’s also gathering maps of your house.” (The Washington Post, July 25, 2017)
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Some data is personal, some isn’t

- **Personal data** = any information relating to an identified or identifiable natural person (the 'data subject’). Processing is subject to the GDPR, e-privacy Directive and national laws.

- **Non-personal data** = raw data generated by machines/IOT sensors that is not personal data. Processing is not subject to any laws or regulations.
Is there a “data ownership”?

- Technical data ownership“ (data „stewardship”) must be distinguished from „legal ownership of data“
- under the currently prevailing law, there is no ownership of personal or non-personal data.
- German Courts have acknowledged ownership of data carriers but not in data and the European Court of Justice in the UsedSoft case only indirectly acknowledged ownership in software.
If data must move: data portability

- The GDPR provides for a right to data portability
- For non-personal data, such a right must still be created
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But there is copyright protection for databases, right?

- Databases which, by reason of the selection or arrangement of their contents, constitute the author's own intellectual creation are protected as such by copyright (as “database works”).

- The maker of a database who has made a qualitatively and/or quantitatively substantial investment in either the obtaining, verification or presentation of the contents has a sui generis right in the database protecting the structure of the database.
Copyright protection requires a personal individual creation and machine generated data does not meet these criteria.

The sui generis right in databases does not extend to individual data contained in the database which may or may not be subject to copyright protection (no registration, only ex-post assessment).

Especially for big data, copyright protection is too inflexible as it requires licensing from each and every (copy)right holder.
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Monkey business: What happens if there is no copyright owner

- **Works created by machines, nature, animals**, or plants or divine or supernatural beings are excluded from copyright protection due to the lack of a personal (i.e. human) creation.
- British nature photographer David Slater claimed that he invested several thousands of pounds to arrange the photo shoot in Sulawesi, Indonesia, and could not monetize it because Techdirt and Wikipedia made it accessible on their websites.
Isn’t the content of a database protected as a business secret then?

• The EU Know-how Directive protects companies from the unlawful acquisition, use and disclosure of trade secrets.
• But only information that has been subject to reasonable steps to keep it secret, is a trade secret.
• All data that is transmitted in the digital supply chain or analyzed by (big data) service providers must be subject to numerous NDAs.
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The current legal situation for machine created data

Bottom line: There is currently **no data ownership of non-personal, machine created or man made data** or any legal attribution of such data to certain individuals and the protection offered by copyright and trade secrets either doesn ´t apply or is not practical especially in a big data context.
Who controls data also owns it

Control
/kon-trol/
def: Guide or influence what a person or machine does. eg. I control the workers who are building the factory.

- Whoever has control over machine created data can be considered the **de facto owner**
- Data control often remains with the supplier of the hardware (manufacturing machine, car etc.) not with the data producer
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To whom shall data be attributed?: Smart Cars

- The **vehicle owner**?
- The **vehicle manufacturer**?
- The driver or passenger?
- The **insurance company**?
- The state?

- The **provider of the navigation services**?
- The access provider?
- The **car sharing provider**?

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3D printing: To whom shall the data be attributed?

- The „service provider“?
- The principal (his customer)?
- The supplier of materials?
- The insurance company?
- The supervisory authority?
Remote cargo tracking: To whom shall the logistics data be attributed?

- To the principal (current cargo owner)?
- To the recipient (future cargo owner)?
- To the provider of the tracking device?
- To the insurance company?
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Who owns the data in the cloud?

• The cloud service provider?
• His customer?
• Third parties (e.g. website users) uploading their data into the cloud?
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Research and development: To whom shall the data be attributed?

- To the individual carrying out the research?
- To his/her employer?
- To the organization financing the research?
Blockchain and smart contracts: To whom shall the data be attributed?

A blockchain is "a purely distributed peer-to-peer system of ledgers" that utilizes a software unit that consists of an algorithm which negotiates the informational content of ordered and connected blocks of data together with cryptographic and security technologies in order to achieve and maintain its integrity" (Drescher)
Is intellectual property irreconcilable with legal data ownership?

- The **syntactic layer**—at least in theory—only represents pixels **(the data)** that can be distinguished from other pixels irrespective from their content.

- The **semantic layer** attributes some meaning to the pixels **(the invention or creative work)** that may enjoy patent or copyright protection.
Is intellectual property irreconcilable with legal data ownership?

- Whoever owns the syntactic layer may also own the semantic layer.
- Would we create a "super intellectual property right" if we were to introduce a data ownership in the true legal sense?
Do we need a new "intellectual property right" at all?

- Innovation requires a **free flow of data** (data access)
- **No incentive needed** for the creation of new data
- Lack of exclusive property rights for trading privately held data **does not lead to market failure** (data is being traded)
- No need for assigning the benefits of data to a certain company or individual: **Contracts will do the job.**
Do we need a new "intellectual property right"?

Can you come up with a reason or two why we might still need an *industrial* data right? Will contracts really do the job?
Some good reasons for data ownership

- Data is a **tradeable commodity** and a **valuable company asset**
- **The investments** made for the creation of such data must be protected
- Data isn’t “consumed” but can lose its value if others can use it as they please (**loss of competitive advantage**)
Some good reasons for data ownership

- Under the current legal regimes in the EU, those who create valuable data may not be inclined to share it.
- Data that may drive innovation will be "silooed" and kept secret by contractual arrangements designed for data ownership management (limitation of data access).
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Who needs to protect his/her investments?

1. Manufacturers of machines and devices?
2. Distributors/Sellers?
3. The end customer (buyer)?

In a data driven economy, investments made in acquiring, creating and/or analysing data must be protected.
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Will there be a data ownership anytime soon?

In January 2017, the EU Commission published a communication on „Building a European Data Economy“ in which it discusses the

• creation of a data producer's right:
• creation of data access rights.
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Alternative solutions for attributing the rights to data focusing on the data producer

- **Creation of a new neighbouring right ("right in rem")**
- The **data producer obtains the exclusive right to use the data and to grant rights of use ("licenses") to third parties**
- **Absolute protection against anyone seeking to monetize the data irrespective of any contractual arrangements**
- Cease and desist & damage claims against unauthorized users.
Alternative solutions for attributing the rights to data

- **Creation of defensive rights** similar to the rights in trade secrets
- **No** right of disposal to grant **licenses** to other users
- **But**: cease and desist & damage claims against the use of misappropriated data, right to ban the placing on the market and the import of products manufactured with data that has been obtained illegally.
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Alternative solutions for attributing the rights to data

• Dispensation of a regulatory framework
• Creation of **guidelines for contracts** on the attribution of data
• “Watermarking” of data, **encoding access rules in the data itself**
• **Creation of interfaces (APIs)** for certain approved uses
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An alternative solution for attributing the rights to data to the data processor

- **Creation of a non-exclusive right of ownership for** anyone who is lawfully processing the data (**the legitimate data processor**)
- In order to be eligible for such a non-exclusive data ownership, anyone claiming “ownership” of data must ensure **traceability** to prove the **origin of the data** and the **entitlement to process it**.
- Failing such proof, processors may be enjoined from using the data.
Compulsory licenses for everyone?

- Obligation of the data controller (manufacturer of machines, service providers) to grant access to his/her data by a compulsory license
- Access to data in accordance with FRAND rules and protection of business secrets
- But: Access to data should only be granted against appropriate remuneration and only after anonymization of such data.
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Summing up

• The initiative of the Commission for the creation of a data producer’s right is to be welcomed
• Until the data producer’s right becomes a reality and thereafter, contractual arrangements are indispensable.
Agreements that provide for the attribution of data are still rarely seen these days.

Without a contractual attribution of the data, the entity having de-facto control over such data will remain its owner.

No “one size fits all” for data attribution agreements!
Smart Watches, Fitness Trackers etc. create a vast amount of **personal health data**, the processing of which is subject to particular rules under the GDPR and national laws of the EU member states.
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Contractual attribution of data in the engineering sector

- Data attribution to the machine operator as data producer
- Plant manufacturers and operators must obtain access to data to establish the causes for product defects
- This access must be created by contracts
- The lack of data access may result in product liability
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Contract manufacturing

• Who owns the **data in the printing template/3D model**?
• Who owns the **data that is created during a print job**?
• The **lack of data access** can result in **product liability** and can impede the improvement of products
• The attribution of and access to production data must be regulated by suitable contractual provisions.
Choosing the right **wording isn’t trivial**

- Clauses seeking to grant one contracting party “**data ownership**“ may be considered **null and void** by national courts
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Contracts: do’s and don’ts

• Drafting data trading agreements and data processing agreements requires active teamwork between the CIO/CTO and the lawyer / inhouse counsel with specialized knowledge about such agreements.

• **Integrated contracts** are needed.

• This work is different from everyday contract drafting.
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