



SCHOOL OF  
ECONOMICS AND  
MANAGEMENT

# Transparency in automated algorithmic decision-making – perspectives from the fields of intellectual property and trade secrets law

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# Outline

1. Automated algorithmic decision-making
2. Transparency
3. Perspectives from the fields of intellectual property and trade secrets law
4. Conclusions

# Transparency in automated algorithmic decision-making

- Multifaceted concept used by various disciplines.
- Transparency as “**explainability**”?
- Opacity – “**Black-box**”-problem
  
- Transparency is the most common principle emphasized in different ethical guidelines addressing AI.

# Transparency

- European AI strategy from April 2018.
- **The ethical guidelines** published by the EU Commission's High-Level Expert Group on AI in April 2019 states **transparency as one of seven key requirements for the realization of 'trustworthy AI'**.
  - **Traceability**
  - **Accountability**
  - **Auditability**
  - **"Principle of explainability"**
- Repeated in the **Commission's white paper on AI**, published in February 2020.



# Transparency

- **Legal aspects?**
  - **(Ambiguous) right for data subjects “to obtain an explanation of the decision reached” in automated processing** (article 22 GDPR) is involved (cf. recital 71)?
  - Information obligations (articles 13–14 GDPR, cf. recitals 60–62) and the right of access (article 15 GDPR, cf. recital recital 63).
  - Protection of fundamental rights, protection against discrimination (bias), aspects of liability, consumer protection... etc.
  - The ECJ has consistently explained that the remit of data protection law is not to assess whether inferences and decisions based upon them are accurate or justified. Rather, individuals need to consult sectoral laws etc.
- **Algorithmic auditing?**
- **Technical restraints?**

# Perspectives from the fields of intellectual property and trade secrets law

- Legal aspects of **propriatorship**
  - Training data
  - Outcome of the algorithmic process
  - The AI as such
  
- Patents
  
- Trademarks
  
  
- **Copyright**
- **Database protection**
- **Trade secrets law**

# Copyright

- Almost complete (full) harmonisation within the EU
- Protection of artistic and **literary works**
- **Computer programs** and **algorithms** is (may be) protected as literary works
- **What** is protected? The (literary) expression
  - **"Copyright protection extends to expressions** and not to ideas, procedures, methods of operation or mathematical concepts as such."

# Copyright

- ECJ's judgment in case C-406/10 SAS Institute
  - **Preparatory design material, machine code, source code, and object code,** but not the functionality of the computer program or the format of the data files.

# Copyright

- **Type of protection:** Rights to **prohibit** use of the work in the form of **reproduction** and **dissemination of the work** to the public
- Relevant exceptions/limitations to protection? For example: **Certain temporary forms of reproduction** and (soon also) **text and data mining**
- **Access to the source code** of the algorithmic agent?

# Database protection

- EU database directive (96/9) – *sui generis* right for databases
- **Protection of (substantial) investments in obtaining, verification and presentations of the contents of databases**
- **Input** and **output** data is (may be) subject to the database right
- Right to prohibit others from **extracting** and **re-using** substantial parts of databases. Assessed **qualitatively** and **quantitatively**.

# Trade secrets

- EU Trade Secrets Directive **2016/943**
  - Limits transparency?
  - The creation of new data may be classified as a trade secret.
  - Article 2 of the Directive defines a trade secret as **any information that is not “generally known,” has commercial value due to this secrecy, and has been subject to reasonable steps to ensure it remains a secret.**
  - Recital 1 clarifies that **“valuable know-how and business information”** is included.
- The definition of a trade secret is so broad as to include nearly any data handled by a commercial entity.
- Exceptions in article 5.
- Article 9(4) and recital 35.

# Relationship between IPRs, trade secrets and the GDPR

- **Article 9(4) of the Trade Secrets Directive**
  - “Any processing of personal data in the context of legal proceedings dealing with trade secrets shall be carried out in accordance with the Data Protection Directive (Directive 95/46/EC).” (cf. article 94(2) of the GDPR).
- **Recital 63 to the GDPR**
  - “Where possible, the controller should be able to provide remote access to a secure system which would provide the data subject with **direct access to his or her personal data. That right should not adversely affect the rights or freedoms of others, including trade secrets or intellectual property and in particular the copyright protecting the software.** However, the result of those considerations should not be a refusal to provide all information to the data subject.”
- **(Recital 35 of the GDPR: rights 'to protection of personal data of any person whose personal data may be processed by the trade secret holder when taking steps to protect a trade secret.'**)

# Conclusions

- Complementary fields of law
- What would a “right of explanation” entail?
  - Dynamic or context-related concept?
- Horizontal issues?
- Legal issues? Mandatory legal requirements (for high risk AI systems..) to be imposed on the relevant actors?
- Alternative (regulatory) solutions: “Soft law” or standardization?

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