

AI REGULATIONS - EUROPE

What is data labelling?

- ❖ Data labelling is a form of machine learning that trains AI for a specific purpose. It is the process of identifying what is considered "raw data" (images, text, files, videos, numbers, figures, etc.) and attaching an informational or meaningful label for context for the machine to learn.
- Example 1: A label can indicate whether an image contains a cat or a flower. Or in the medical field, if an X-ray contains a brain tumour.
- Example 2: A label can identify whether a particular set of words is written in iambic pentameter.
- It uses human-provided labels to learn underlying patterns and establish a trained model that can be used to make predictions on new data.
- For example, labellers (human beings) can be asked to tag all images in a dataset that contain a motorcycle or a tree.

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Legal and Ethical Dilemmas

Severe ethical and legal issues can arise from the nature or practices involved in data labelling:

A. Ethical

- a. Privacy Concerns
- b. Labour Exploitation
- c. Bias, Prejudices, & Discriminations
- d. Accountability and Transparency

B. Legal

- a. Personal data protection
- b. Intellectual Property concerns
- c. Liability concerns
- d. Employment laws

EU Legislative Framework

A. The General Data Protection Regulation (GDPR)

➤ Effective since May 25, 2018, it deals primarily with data protection and user privacy but has important implications for AI and data labelling.

> Enforcing Data Processing Principles:

- The regulation mandates that personal data must be processed lawfully, fairly, and transparently.
- This entails data accuracy and relevance and limiting the data collected to what is necessary for the intended purpose.

≻ Consent:

 Data subjects must provide explicit consent for their data to be processed, including data used for AI training and labelling.

➤ Data Subject Rights:

- Individuals have the right to access, correct, delete, and restrict the processing of their personal data.
- They also have the right to object to automated decision-making.

Organizational Data Protection Design:

 Organizations must implement technical and organizational measures to integrate data protection principles into their data processing activities.

> Data Anonymization:

 Privacy protection must always take priority. Wherever possible, practices involving personal data should be anonymised or pseudonymized to protect privacy.

B. **EU Artificial Intelligence Act**

> 21 May 2024 → The European Council formally adopted the EU AI Act

➤ June-July 2024 → The AI Act is scheduled to be published in the Official Journal of the European Union; publishing acts as a formal notification of the new law and will take effect 20 days after it is published.

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➤ It categorizes AI systems based on risk and imposes different requirements accordingly:

Unacceptable risk

- Unacceptable risk is prohibited
- A complete list is available¹; some examples are social scoring systems and manipulative AI.

High risk

- Includes systems used in critical areas like health, education, employment, and law enforcement; the AI Act mandates:
 - a. **Risk Management**: Comprehensive risk assessment and mitigation strategies.
 - b. Data Governance: High-quality data sets for training,
 validation, and testing to ensure accuracy,
 robustness, and fairness.
 - c. **Transparency and Traceability**: Clear documentation and logs for audit purposes.
 - d. **Human Oversight**: Mechanisms to ensure human intervention and control.

Limited risk

 Subject to lighter transparency obligations: developers and deployers must ensure that end-users are aware that they are interacting with AI (chatbots and deepfakes).

Minimal risk

 Unregulated (including most AI applications currently available on the EU single market), but still require some transparency and accountability.

C. <u>Digital Services Act (DSA) and Digital Markets Act (DMA)</u>

While these acts are not primarily focused on AI or data labelling, they contain provisions that indirectly impact data labelling practices through

¹ Prohibited AI systems (Chapter II, Art. 5)

their broader objectives of transparency, accountability, and user protection.

a. Digital Services Act (DSA)

- The purpose is to create a safer digital space by setting clear rules for online platforms and services. It includes new obligations for digital services to handle illegal content, enhance transparency, and protect users' rights.
- Concerning AI and data labelling, this act requires:
 - Transparency within the use of labelled data when training these systems & data disclosure.
 - Traceability through accurate data labelling and verification processes
 - Risk assessments and mitigation strategies for large online platforms, including those stemming from the use of automated systems and AI.

b. Digital Markets Act (DMA)

- It focuses on ensuring fair competition by regulating the practices of large digital platforms known as "gatekeepers."
 - They must facilitate data access to data generated by business users and end-users.
 - They must provide transparent information regarding the ranking mechanisms used on their platforms. This involves explaining the data (including labelled data) and criteria used by algorithms to rank content or services.
 - They must ensure non-discriminatory access to their services and prevent practices that unfairly favour their own products or services over others, which includes ensuring that the data used in algorithms is labelled and utilized fairly.

UK Regulatory Framework

While the EU opted for prescriptive legislation through the AI Act, the UK's preferred approach is a non-statutory principle-based framework. In other

- words, the EU has opted for stricter, delimited, and specific regulations, while the UK has opted for more general and outcome-based regulations, which allow more flexibility.
- There is no general or encompassing law such as the EU AI Act, but several laws and guidelines are designed to ensure ethical, legal, and fair practices.

A. GDPR UK and Data Protection Act 2018 (DPA 2018)

- ➤ It is the UK's implementation of the GDPR post-Brexit. It sets out the framework for data protection and privacy in the UK.
- ➤ Maintains the core principles and rights established under the EU GDPR, with necessary amendments to accommodate UK-specific provisions.

B. Equality Act 2010

- ➤ The purpose is to ensure that AI systems, including those trained using labelled data, do not discriminate against individuals based on protected characteristics such as age, race, gender, and disability. Key aspects include:
 - **Non-Discrimination**: Al systems must be designed and tested to prevent bias and discrimination.
 - **Fair Treatment**: Data labelling practices must ensure that datasets are representative and inclusive to avoid perpetuating inequalities.

C. Artificial Intelligence Bill & Data Protection and Digital Information (DPDI) Bill

- The UK AI Act reached a political agreement on December 8, 2023.
- The DPDI Bill passed the Committee stage on 24 April 2024, but failed to be fast-tracked through Parliament.
- Both bills were dropped due to the upcoming July general elections.
- However, industry groups have continued to lobby for reform to the UK's data protection regime.
- Regarding the AI Bill, it has a high possibility of being reintroduced.
- Concerning the DPDI Bill: If the Conservatives are re-elected, it seems
 likely that the DPDI Bill will be reintroduced; if Labour is elected, the party
 is expected to introduce a new bill with specific issues and provisions
 selected from the previous bill.

For more information, please visit:

What is data labeling?

https://aws.amazon.com/what-is/data-

<u>labeling/#:~:text=In%20machine%20learning%2C%20data%20labeling,model%20can%20learn%20from%20it.</u>

EU

https://artificialintelligenceact.eu/

https://artificialintelligenceact.eu/high-level-summary/

https://artificialintelligenceact.eu/developments/

UK

https://ico.org.uk/for-organisations/uk-gdpr-guidance-and-resources/artificialintelligence/explaining-decisions-made-with-artificial-intelligence/part-1-the-basics-ofexplaining-ai/legal-framework/

https://www.foundation.org.uk/Blog/2024/Regulating-Al-in-the-EU-and-the-UK-alegal-

<u>view#:~:text=While%20the%20EU%20opted%20for,%2Dstatutory%20principle%2Dbased%20framework.&text=2023%20saw%20major%20advancement%20regarding,reached%20on%20December%208%2C%202023.</u>

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