ARTIFICIAL INTELLIGENCE AND OPEN DATA

WHAT IS ARTIFICIAL INTELLIGENCE?

The artificial intelligence **is the ability of a machine to mimic human intelligence**. It does this by analysing available information **in order to achieve specific goals.**
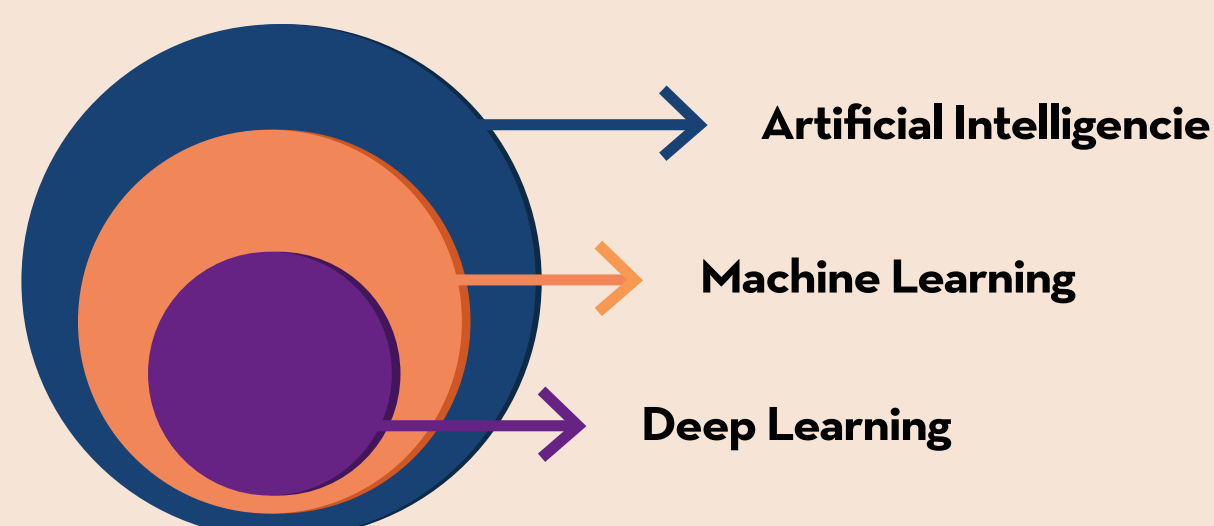
Source: European Commission

WITHIN AI WE FIND, AMONG OTHERS, THE SUBFIELDS OF MACHINE LEARNING AND DEEP LEARNING.

Within Artificial Intelligence, the two most talked-about technologies are Machine Learning and Deep Learning. In both cases, the aim is to build systems that are capable of learning to solve problems without human intervention. Find out more.

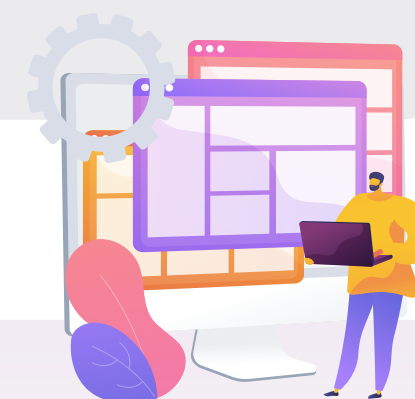### Artificial Intelligencie, Machine Learning y Deep Learning

→ **Artificial Intelligencie**

→ **Machine Learning**

→ **Deep Learning**

Source: datos.gob.es

WHAT ROLE DOES OPEN DATA PLAY IN ARTIFICIAL INTELLIGENCE?

Open data **is essential for the development of AI**, as algorithms have to be trained on highly available quality data.

THIS IS HIGHLIGHTED BY VARIOUS STRATEGIES AND REGULATIONS AT NATIONAL AND EUROPEAN LEVEL:

- National Artificial Intelligence Strategy
- European Regulation on Artificial Intelligence
- White Paper on Artificial Intelligence

USE CASES OF ARTIFICIAL INTELLIGENCE

The development of AI enables the improvement of numerous processes, services and applications in various fields, for example:

HEALTH
Identification of pathologies through medical imaging.

Example:

🔗 **QMenta**
- Image processing and visualisation for brain data analysis.
- Data from the Italian Society of Medical Radiology.

ENVIRONMENT
Efficient forest management.

Example:

🔗 **Forecast**
- Decision-making tools for forest managers.
- Data from the National Geographic Institute, Ministry for Ecological Transition and the Demographic Challenge and Copernicus.

ECONOMY
Optimisation of tender management.

Example:

🔗 **Ártabro Tender**
- Tools to find and choose the public tenders that a company can really win.
- Data from the Ministry of Finance and Public Management.

TURISM
Tourist assistants.

Example:

🔗 **Castilla y León Guru**
- Incorporates advanced natural language processing functions, detection of points of interest in images and use of geolocalised context.
- Data from the Castilla y León open data catalogue.

CULTURE
Generation of own texts and summaries of other existing texts through natural language processing.
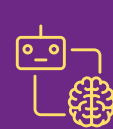
Example:

🔗 **MarIA**
- The first artificial intelligence of the Spanish language
- Data from the National Library of Spain

More examples of use cases can be found in the report "Emerging technologies and open data: an introduction to data science applied to image analysis". **It includes a step-by-step.**

DO YOU WANT TO EXPAND YOUR KNOWLEDGE OF ARTIFICIAL INTELLIGENCE?
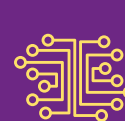### Don't miss these articles!

- Courses to broaden your knowledge of **artificial intelligence**
- **Open image repositories** for training AI models
- **Transfer Learning**: how to train Deep Learning models affordably
- **Reinforcement Learning:** AI solutions that learn without historical data

DO YOU WANT TO KEEP UP TO DATE WITH THE LATEST NEWS FROM THE DATA OFFICE AND DATOS.GOB.ES?
Follow us on **datos.gob.es**, **Twitter** and **LinkedIn.**