



Understanding Artificial Intelligence: *An In-Depth Guide for Non-Expert Readers*

Gedeon Hakizimana¹
Agapito Ledezma Espino²

¹Doctoral Researcher, Universidad Carlos III de Madrid, 100476007@alumnos.uc3m.es

²Professor, Universidad Carlos III de Madrid, ledezma@inf.uc3m.es
Department of Computer Science & Engineering
Av. Universidad, 30, 28911 Leganés (Madrid), Spain

Target Audience:

This material is created for a **non-technical audience**, including:

- High school students and early undergraduates from non-CS fields
- Educators introducing AI in general science or digital literacy courses
- Curious professionals or citizens wanting to understand AI without needing coding or math backgrounds.

Expected Reading Time:

12-15 minutes

Brief Description of the Material

This educational handout introduces readers to the world of Artificial Intelligence (AI) through simple language, real-life analogies, and clear structure. Designed for those without a technical background, the guide demystifies AI concepts such as:

- What AI is, its main categories and how they work
- How machines "learn" from data
- The different types of learning: **supervised**, **unsupervised**, **semi-supervised**, **self-supervised**, and **reinforcement learning**
- Classic learning algorithms like **Linear Regression**, **Decision Trees**, and **Naive Bayes**
- Advanced methods like **Neural Networks**, **CNNs**, **RNNs**, and **Transformers**
- Real-world examples (e.g., facial recognition, voice assistants, recommendation engines)
- Ethical concerns like data bias, privacy, and AI transparency
- Limitations of AI and its future.

By the end, readers are equipped with the foundational understanding needed to engage with current AI topics and evaluate their impact on society.