

Graduate Certificate in Artificial Intelligence with Machine Learning AIGC 5504 – Emerging Technologies in Artificial Intelligence

# Lab 9: Understanding Generative AI Ethics

## **Submission guidelines:**

- For this lab, you will need to submit 1 PDF file.
- Convert your codes to PDF.
- Name the PDF as follows: firstname lastname LAB 9.pdf
- Go to the course Blackboard  $\rightarrow$  Labs folder  $\rightarrow$  Lab Exercises 9 and submit the pdf.

### Lab goals:

- Explore Generative AI tools and reflect on ethical implications.
- Analyze real-world challenges such as misinformation, bias, and copyright.
- Use a no-code tool to simulate a scenario involving ethical concerns.

# Part 1: Exploring Ethical Challenges with Generative AI

- 1. Simulate a Real-World Scenario:
  - o Choose an ethical issue to explore, such as:
    - AI generating fake news articles.
    - Bias in AI outputs based on gender or cultural stereotypes.
    - Copyright concerns when generating images or text resembling existing works.

#### 2. Generate an Output:

- o Create a text, image, or audio sample using the AI tool.
- Save the output and note any observations (e.g., accuracy, fairness, potential ethical concerns).

# Part 2: Ethical Evaluation and Reflection

- 1. Evaluate the Output:
  - o Use the following questions as a guide:
    - Does the output exhibit any bias?
    - Could it mislead users or contribute to misinformation?
    - Are there concerns about intellectual property or copyright infringement?

### 2. Modify the Input Prompt:

- Experiment with prompt variations to minimize ethical concerns (e.g., rephrasing to reduce bias).
- Observe and save the updated outputs.
- 3. Analyze Improvements:



- o Compare the initial and revised outputs.
- Reflect on the effectiveness of prompt modifications.

### Part 3: Ethical Incident in AI

1. Research and discuss a specific incident involving the ethics of artificial intelligence. You should explore the ethical considerations, impacts, and lessons learned from the incident, and list everyone involved/impacted. Make sure you source your information from credible resources and cite your work.

Enjoy!