Damian Gordon

Damian.X.Gordon@TUDublin.ie

Five Fictional Case Studies in the Ethics of GenAI

with discussion questions.

Table of Contents

[Introduction 2](#_Toc198573489)

[Case Study 1. Academic Dishonesty Using GenAI 3](#_Toc198573490)

[Case Study 2. Deepfake Generation and Misinformation 4](#_Toc198573491)

[Case Study 3. AI-Generated Content and Intellectual Property 5](#_Toc198573492)

[Case Study 4. Synthetic Data in Healthcare 6](#_Toc198573493)

[Case Study 5. Job Automation with GenAI 7](#_Toc198573494)

# Introduction

These case studies can be delivered in any manner that best suits you. I have found that it works best if I divide my class into three parts:

1. The main lesson delivered introducing the topic for consideration (5-10 minutes).
2. A discussion session where students were put in groups in-person or in on-line break-out rooms and take their time to discuss the key points of the lesson, as well as consider some questions supplied to them (20 minutes).
3. The sharing session, where students share their thoughts with the entire class, either using the on-line classroom, or in an anonymous note-making environment like Padlet (20 minutes).

This allows the students to develop an ownership of the content, and to construct their own meaning of the lessons being taught.

**Consequence Scanning**

If you don’t want to use the questions below, another way to help students anticipate the potential outcomes of the software systems mentioned in each case study, they could reflect on the following three questions:

* What are some of the potential consequences (intended and unintended) of this software?
* Which of those are positive consequences, and how can we enhance them?
* Which of those are negative consequences, and what should we do to mitigate them?

# Case Study 1. Academic Dishonesty Using GenAI

**Description:**

A student begins using a GenAI writing assistant to complete assignments, including writing essays, generating code, and debugging. Initially, they use it for help and inspiration, but over time, they rely entirely on the AI without doing the work themselves. The lecturer, unaware of the use of GenAI, grades the submissions as original. The student graduates with a First Class honour. Later, the department learns that several graduates were heavily dependent on GenAI during their studies, raising concerns about academic integrity and the value of the degree.

**Suggested Talking Points:**

* What constitutes academic dishonesty in the era of GenAI?
* Should universities redefine academic integrity?
* How can CS departments set fair, enforceable guidelines around AI usage?
* How can lecturers design assignments to encourage learning while discouraging dishonest use of GenAI?
* Should universities adopt detection tools or honour-code systems for GenAI use, and what are the risks of surveillance?

# Case Study 2. Deepfake Generation and Misinformation

**Description:**

You join a startup that builds cutting-edge video synthesis models using GenAI, capable of generating hyper-realistic videos of people speaking. The tool is marketed as a creative asset for filmmakers and content creators. However, soon after launch, it is used to create a viral fake video of a political leader saying something inflammatory. The video spreads rapidly on social media, causing real-world unrest and damaging public trust in video as a reliable source of truth.

**Suggested Talking Points:**

* Who is responsible for misuse: the developer, the distributor, or the end-user?
* Should access to GenAI video tools be restricted or licensed?
* How can developers anticipate and prevent harmful applications?
* What policies or technologies could be implemented to verify the authenticity of digital media?
* How might legal systems evolve to address harms caused by GenAI-generated misinformation?

# Case Study 3. AI-Generated Content and Intellectual Property

**Description:**

A GenAI art generator trained on hundreds of thousands of copyrighted images from the internet begins producing images that closely mimic the styles of specific living artists. These generated artworks are sold online by users who claim full ownership, bypassing the original artists. One artist finds their distinctive style reproduced without permission and sues. Meanwhile, the developers argue that training on public web content is “fair use” and that the outputs are novel creations.

**Suggested Talking Points:**

* Is it ethical to use copyrighted works to train AI without consent?
* Who should own the outputs of GenAI systems — the user, the company, or the artist whose style was replicated?
* Should AI-generated content include disclosures or attribution?
* Should artists be compensated when their work is used to train GenAI models? If so, how?
* Can GenAI tools be designed to exclude specific artists or styles from being mimicked? Should users be able to opt out?

# Case Study 4. Synthetic Data in Healthcare

**Description:**

A research team builds a GenAI model to generate synthetic patient data for training diagnostic algorithms. The synthetic data is created to sidestep privacy issues and regulatory concerns associated with real patient data. However, after closer inspection, some of the generated data closely mirrors actual patient records due to overfitting in the training process. This raises alarms about re-identification risks and the false assumption that synthetic data is always safe.

**Suggested Talking Points:**

* How should synthetic data be evaluated for privacy risk?
* Are developers liable if GenAI inadvertently reproduces real patient data?
* Should there be oversight or auditing standards for synthetic data in healthcare?
* How can explainability and transparency in GenAI models help ensure patient data isn’t inadvertently exposed?
* Should synthetic data undergo the same ethical review as real-world datasets in healthcare research?

# Case Study 5. Job Automation with GenAI

**Description:**

Your company successfully implements a GenAI writing system that produces high-quality blog posts, product descriptions, and marketing emails. As a result, most of the human content writers are laid off. While the company reports improved efficiency and reduced costs, some of your former colleagues now struggle to find employment in an AI-dominated field. Public criticism mounts, accusing the company of valuing profit over people.

**Suggested Talking Points:**

* What responsibility do developers have to consider the socioeconomic impact of GenAI?
* Should companies be required to retrain or support displaced workers?
* Is it ethical to pursue efficiency at the cost of widespread job loss?
* How might laws or regulations be used to ensure responsible deployment of GenAI in the workforce?
* Could developers and companies adopt ethical charters or standards to address the displacement of human workers?