

# Research Essay (Assignment 2)

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**Due** Jun 10 by 18:00    **Points** 30    **Submitting** a file upload    **File Types** doc, docx, and pdf

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## Aims

The aim of this research essay is to improve your understanding of all of the key concepts learnt in this unit. By doing so, this research essay aims to improve your critical thinking, communication skills, referencing skills, and ability to conduct independent research.

## Overview

This assessment asks you to apply critical ethical thinking to convince your readers of a particular case or viewpoint.

## Task

### Case study options

Select **one** of the case study options below.

#### *Option 1: Facial Recognition for Finding Missing People*

Facial recognition technologies have caused some controversy in past years and have raised concerns of privacy on social media, implications for criminal justice, etc. However, people can occasionally go missing from their communities for one reason or another, causing distress to their loved ones.

- Either, defend the use of facial recognition technologies to find missing persons and provide guidance on how it can be done in the most ethical way;  
or
- Alternatively, argue that facial recognition should not be used to find missing persons.

#### *Option 2: Optimising COVID Vaccination Rollouts with Deep Learning*

COVID vaccination is important to ensure herd immunity to prevent the catastrophic health and economic implications of coronavirus. However, the logistics of rolling out vaccines can be rather difficult: e.g. distribution, scheduling, and most importantly ensuring vaccines are not wasted. The last point is important, as vaccines can only be kept viable at certain temperatures and some must be used up within a given amount of time before going to waste.

Assume a company X develops a highly-efficient logistics and scheduling system, using state-of-the-art deep learning technologies, to schedule and manage the vaccination planning and rollout for an entire state. This would hypothetically result in significantly higher numbers of people being vaccinated and minimise wastage and issues with vaccines. However, this system utilises highly-sensitive data to make its decisions - including hospital records and estimated lifespan/quality of life from insurance providers.

- Either, defend the use of such technologies to maximise vaccination outcomes;  
or
- Alternatively, argue that such technologies should not be used in the first place given its nature.

## Task Details

Select **only one** of the case studies above.

Your task is to write a **1500-word research essay** to defend **one** technical-ethical-legal perspective (listed in the case study).

Your essay should use **four or more** of the most relevant key concepts below:

*trust, fairness, transparency, accountability, privacy, equity/accessibility, safety, explainability, human rights, and governance.*

Your essay will be stronger if you successfully use one (or more) ethical theory/framework, such as utilitarianism, virtue ethics, deontology, ethics or care, or principlism.

**You are expected to research widely and find your own academic sources, including but not limited to peer-reviewed journal articles, conference papers, textbooks.**

*(Note: Wikipedia is NOT a good source for a research essay!)*

## Helpful Guidance: please read this section carefully!

In essence: what is the difference between a 'research essay' and an argument (say the first Assignment of this subject)?

**The 'research' part of the assignment says it all -- making it clear that arguments about the technology need to be backed up by more convincing arguments and evidence!**

You've had experience writing arguments in the prior Assignment; now we extend your academic writing skills to backing up points of view.

It does not matter whether the 'point of view' you choose is your own personal opinion or not. Rather, what matters is how well you defend that point of view. This requires considering the strengths and weaknesses of that point of view.

To write a good essay, you need to draw upon references to other academic and scholarly works, and present these in the right manner. To start with, please read the following three guides from our University's resources for students.

1. This article, "Writing successful essays: Expectations of essays at university level" ([https://services.unimelb.edu.au/\\_data/assets/pdf\\_file/0003/471297/Writing\\_Successful\\_Essays\\_Update\\_051112.pdf](https://services.unimelb.edu.au/_data/assets/pdf_file/0003/471297/Writing_Successful_Essays_Update_051112.pdf) ([https://services.unimelb.edu.au/\\_data/assets/pdf\\_file/0003/471297/Writing\\_Successful\\_Essays\\_Update\\_051112.pdf](https://services.unimelb.edu.au/_data/assets/pdf_file/0003/471297/Writing_Successful_Essays_Update_051112.pdf))) provides a quick overview of the expectations of the essay, including how to structure the whole thing.
2. A more detailed guide is "Essay Basics" at ([https://library.unimelb.edu.au/\\_data/assets/pdf\\_file/0009/1924083/Essay\\_Basics.pdf](https://library.unimelb.edu.au/_data/assets/pdf_file/0009/1924083/Essay_Basics.pdf) ([https://library.unimelb.edu.au/\\_data/assets/pdf\\_file/0009/1924083/Essay\\_Basics.pdf](https://library.unimelb.edu.au/_data/assets/pdf_file/0009/1924083/Essay_Basics.pdf))).
3. **Now, one of the major differences between this research essay and prior essays you might have written is the need to back up your arguments with academic sources, and reference them appropriately to maintain Academic Integrity.** This resource "Using sources in assessments: voice in academic writing", is a good one (<https://students.unimelb.edu.au/academic-skills/explore-our-resources/referencing/voice-in-academic-writing> (<https://students.unimelb.edu.au/academic-skills/explore-our-resources/referencing/voice-in-academic-writing>)).

## Submission requirements

Upload your submission to the *Research Essay* submission on Canvas.

Submissions must be in the form of .doc, .docx, or .pdf files, and must conform to the following requirements:

- 12 point font
- Arial font only for Word documents, or Sans Serif for Latex
- 1.5 line spacing
- Use Harvard citation style for references (if any are used)
- Clearly defined paragraphs
- Figures and images can be used, but each figure counts for 200 words, so use them sparingly (if at all) and use them well!
- Please put a word count in the essay (word count does not include references)

For latex users, use the standard arxiv style on Overleaf (Create a new project -> Academic Journal -> Show all gallery items -> Search 'arxiv' and select the template "Style and Template for Preprints (arXiv, bio-arXiv)". Make sure you set to 1.5 spacing and use Sans Serif font style.

## Late submission policy

Submissions that are late will be penalised 10% per day (so 3 marks per day) up to 7 days.

If you require an extension due to personal or medical reasons, please contact the staff *before* the due date requesting the extension. Thanks!

## Criteria [total 30 marks]

### Support & development of ideas [10 marks]

The ideas in the research essay are well developed and the arguments are well supported. The positions taken in the report are clear.

Make sure that the statements and arguments you make are supported; that is, backed up by facts, data, reasons, or beliefs that are likely to be held by your audience. Your aim is to convince your reader that you have a strong case, which is adequately supported by other sources of academic literature. An argument is weak if it is not supported by facts and reasons.

A decent essay of this length will have **ten** or more references.

### Mastery of subject content [10 marks]

The essay demonstrates an understanding of the subject content and the ability to use this understanding to critically analyse a problem and support their argument.

To construct an argument, it is important that you take the time to re-visit the relevant modules and related material in the subject with the assignment in mind. Take notes and highlight important points.

### Organisation [4 marks]

The essay is well organised and follows a clear structure.

Structure your essay so that each paragraph presents one argument. The first sentence of each paragraph should clearly signal the topic of the paragraph. If a paragraph is an argument of a point, begin the paragraph with the claim you want to make, and then use the rest of the paragraph to support that claim (see more below)

Aim to keep each paragraph reasonably short: somewhere between three and five sentences. Aim to keep sentences of a sufficient length: between 15-40 words is a rough guide. A sentence is too long if a reader gets to the end of the sentence and cannot remember the start of the sentence. Read your report out loud and if you need to take a breath during a sentence, it may be too long.

### Clarity [4 marks]

The essay is clear to the reader.

A reader is always reading your writing from a different perspective from you, with a different background and a different level of understanding of what the essay says. If some parts of your essay are a bit unclear to you, then they will definitely be unclear to the reader. If they are clear to you, this does not mean they will be clear to the reader. It is important that when you re-read your essay to yourself, you think about reading it as if the content is entirely new to you, and highlight and passages that you think could not be clear.

Note that there is a strong relationship between the clarity, organisation, and the support & development of ideas criteria, and demonstrating mastery of the subject content. A clear, well structured argument that is well supported and well developed will make it easier for a reader to understand the ideas, and making it easier to verify that you have developed mastery of the subject content.

### Presentation & grammar [2 marks]

The paper presentation is clean: spelling, grammar, complete sentences, formatted correctly, **proper use of academic citation**, etc.

While a reader may still understand your essay, sloppy spelling & grammar and an inconsistent format give off an impression that the writer did not pay attention to detail, and can form a negative impression before a reader has even read a single

sentence. **Also, it is important to note that CORRECT citation practices are required to display academic integrity. (See below).**

## Academic integrity

The [University of Melbourne academic integrity policy](https://academichonesty.unimelb.edu.au/policy.html) [.\(https://academichonesty.unimelb.edu.au/policy.html\)](https://academichonesty.unimelb.edu.au/policy.html) applies. Students are encouraged to discuss the assignment topics, but all submitted work must represent the individual's understanding of the topic. The subject staff take academic misconduct seriously. Plagiarising material from other students or from any other source may result in receiving 0 marks for this assessment or a fail for the subject.

**PLEASE NOTE THAT STAFF AND THE UNIVERSITY ARE AWARE OF WEBSITES AND SOCIAL MEDIA PURPORTING TO ASSIST STUDENTS COMMIT ACADEMIC MISCONDUCT: DISCIPLINARY ACTION FROM THE UNIVERSITY WILL BE TAKEN.**

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## Plagiarism declaration

By submitting work for assessment I hereby declare that I understand the University's policy on [academic integrity](https://academicintegrity.unimelb.edu.au/) [\(https://academicintegrity.unimelb.edu.au/\)](https://academicintegrity.unimelb.edu.au/) and that the work submitted is original and solely my work, and that I have not been assisted by any other person (collusion) apart from where the submitted work is for a designated collaborative task, in which case the individual contributions are indicated. I also declare that I have not used any sources without proper acknowledgment (plagiarism). Where the submitted work is a computer program or code, I further declare that any copied code is declared in comments identifying the source at the start of the program or in a header file, that comments inline identify the start and end of the copied code, and that any modifications to code sources elsewhere are commented upon as to the nature of the modification.

COMP90087 assignment 2 [Research Essay]

Criteria	Ratings						Pts
<p>Support and development of ideas</p> <p>The ideas in the report are well developed and the argumentations are well supported. The positions taken in the report are clear.</p> <p>Make sure that the statements and arguments you make are supported; that is, backed up by facts, data, reasons, or beliefs that are likely to be held by your audience. An argument is weak if it is not supported by facts and reasons.</p>	<p><b>10 pts Outstanding</b></p> <p>The ideas are well developed and arguments very well supported. The positions taken in the report are very clear.</p>	<p><b>8 pts Proficient</b></p> <p>The ideas are developed and arguments supported. The positions taken in the report are clear. However, some improvements may still be possible.</p>	<p><b>6 pts Developing</b></p> <p>The ideas and argument are good, but require some further development; or the position taken is unclear</p>	<p><b>4 pts Incomplete</b></p> <p>The ideas or arguments in the report are incomplete, and the stance taken is unclear</p>	<p><b>2 pts Insufficient</b></p> <p>The ideas need further development and the arguments are not well supported; the positions taken are not clear.</p>	<p><b>0 pts No Marks</b></p> <p>The report does not include sufficient ideas or support and is not clear.</p>	10 pts
<p>Mastery of Subject Content</p> <p>The essay demonstrates an understanding of the subject content and the ability to use this understanding to critically analyse a problem and support their argument.</p>	<p><b>10 pts Outstanding</b></p> <p>The essay demonstrates a strong understanding of the subject content and the critical analysis is excellent.</p>	<p><b>8 pts Proficient</b></p> <p>The essay demonstrates a good understanding of the subject content and the critical analysis supports the argument well, but some improvements are possible.</p>	<p><b>6 pts Developing</b></p> <p>The essay demonstrates sufficient understanding of the main concepts and these are used well, but some concepts are misunderstood or applied incorrectly.</p>	<p><b>4 pts Incomplete</b></p> <p>The essay demonstrates a superficial understanding of the subject content and its application, or the critical analysis is lacking detail and substance.</p>	<p><b>2 pts Insufficient</b></p> <p>The essay demonstrates a lack of understanding of the subject content and the critical analysis is insufficient.</p>	<p><b>0 pts No marks</b></p> <p>The essay demonstrates minimal understanding and there is no critical analysis</p>	10 pts
<p>Organisation</p> <p>The essay is well organised and follows a clear structure.</p>	<p><b>4 pts Excellent</b></p> <p>The essay is well organised and follows a clear structure.</p>	<p><b>3 pts Good</b></p> <p>The structure of the essay or the organisation needs some improvement, but overall, the report is good.</p>	<p><b>2 pts Sufficient</b></p> <p>The structure is unclear or the essay organisation needs improvement.</p>	<p><b>1 pts Insufficient</b></p> <p>The essay organisation can be improved significantly and the structure is unclear.</p>	<p><b>0 pts No Marks</b></p>		4 pts

Criteria		Ratings				Pts
Clarity	4 pts	3 pts	2 pts	1 pts	0 pts	
The essay is clear to the reader.	<b>Excellent</b>  The essay is clear at all points.	<b>Good</b>  The essay is clear for the most part, but some improvements can be made.	<b>Sufficient</b>  The essay can be understood, but the expression of ideas is difficult to follow.	<b>Insufficient</b>  Parts of the essay have not been understood.	<b>No Marks</b>  The essay is not clear and most ideas are not understood.	4 pts
Presentation and grammar  The paper presentation is clean: spelling, grammar, complete sentences, formatted correctly, etc.	<b>2 pts</b> <b>Excellent</b>  The presentation is excellent: very few spelling mistakes or grammar errors. Formatting is excellent. Academic citation practices are followed well.		<b>1 pts</b> <b>Good</b>  The presentation is good, but there are mistakes (including but not limited to academic citation practices) that would be easy to spot with a careful proofread.		<b>0 pts</b> <b>No Marks</b>  The presentation needs improvement: several problems that demonstrate lack of care in writing.	2 pts
Total Points: 30						