

Responsible AI Assignment 1 Description

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1. Introduction

Requirements and guidelines

The objective of this assignment is to analyze an AI technique/application in a particular context considering its consequences. To this end, you will write an individual essay considering the requirements and guidelines provided below.

This is an individual assignment.

2. Description

Select a context and AI method/application.

The aim of this assignment is to write a critical essay on how AI is applied in a specific domain/problem which creates certain consequences for specific stakeholders. In this assignment you will either select one of the topics suggested to you or you will define a topic by yourself. A list with suggested topics is provided to you on yOUlearn in the Assignment 1 section.

Establish resources to be used for the topic selected.

Further, you will search the following resources:

- two recent scientific articles outside the resources used in the course for the chosen context,
- one news/blog article that describes the topic selected, and
- a movie/series/book/etc. that includes relevant aspects to the topic selected.

The scientific resources are used to capture the scientific perspectives and dimensions of the topic studied, while the non-scientific resources are used to capture the social and cultural perspectives and dimensions of the topic selected and position this topic in the ongoing societal discourses.

Afterwards, write a small paragraph describing the topic selected and resources you plan to use and send them to the teacher for verification. In case of unclarities, this process can repeat until it is clear. In case the topic and approach are clear, the student can send a document of max. one page with the outline of this assignment for verification and feedback from the teacher.

Write a critical essay of around 2500 words.

Write a critical essay of around 2500 words (exclusive references) on how the AI method/application produces certain consequences in the context selected to certain stakeholders following the requirements presented below.

Reading: read the materials corresponding to the topic selected.

Communication: communicate with the teaching team using the Discussion forum in yOUlearn and by e-mail.

Time: the expected time needed for this assignment is about 30 hours.

Deadline on 30.04.2024

Deadline: submit this assignment by 30.04.2024.

This assignment is 60% of the course grade.

Grading: this assignment represents 60% of the final grade associated with this course. To pass this assignment the grade should be higher or equal to 5.5.

3. Deliverables

The deliverables of this assignment are as follows:

- The essay of around 2500 words (exclusive references).
- The two scientific articles used plus links to other two resources used.

Report structure

4. Requirements

The essay should be structured as follows:

- **Personal Information:** provide the following information about yourself and the course:
 - Course name and ID.
 - Name and student ID.
 - Title of the presentation.
- **Introduction:** introduce the aim and motivation of the essay considering the following setting:
 - **Introduce the aim** of the essay using a **small ethical dilemma/scenario as a fictional setting that illustrates the context**. You can consider this an instantiation of consequences created by applying AI in a certain domain or problem. The purpose of this ethical dilemma/scenario is to capture the interest and attention of the reader and state the need to tackle this topic. For this include the following scenario elements: setting, action, and impact.

On this behalf, you can use the article by Wright et al. (2014) describing ethical dilemma scenarios available here:

Wright, D., Finn, R., Gellert, R., Gutwirth, S., Schütz, P., Friedewald, M., ... & Mordini, E. (2014). Ethical dilemma scenarios and emerging technologies. *Technological Forecasting and Social Change*, 87, 325-336.

- **Issue:** summarize the content of the four resources used and define the issue discussing the following elements:
 - **Discuss how and where** AI is applied to tackle the chosen problem/domain.



- **Discuss why and how consequences** of AI application are created reflecting on who are the stakeholders experiencing/impacted by these consequences.
 - **Explain why applying** AI in this setting can be considered an issue or a challenge from an ethical perspective and argue if this represents a new or an old (well-known) problem in this domain. At the same time, reflect if this issue appears only due to the application of AI or also other (societal) factors are involved or take part in this process.
- **Solution:** consider as a starting point (i) either existing solutions to tackle the identified issue and propose ways to enhance them or (ii) propose your own solution(s) to tackle the identified issue. In both cases, include the following aspects and relate them to the influence on impacted stakeholders:
- **Ethics: discuss ethical aspects and frameworks** involved in building and applying the existing/proposed solution(s).

On this behalf, you can use the article by Mittelstadt et al. (2016) describing debates on ethical aspects surrounding the application of AI algorithms, available here:

Mittelstadt, B. D., Allo, P., Taddeo, M., Wachter, S., & Floridi, L. (2016). The ethics of algorithms: Mapping the debate. *Big Data & Society*, 3(2), 2053951716679679.

Note that you can use this recommended article, or another article found by you, to discuss the ethical aspects. Do not forget to mention it in the references of the assignment.

- **Regulation:** discuss how this issue could be regulated or how is already regulated considering existing applied regulation frameworks.
 - **Society:** discuss the societal perception and mechanisms of tackling this issue. You can think here of mechanisms such as governmental programs, NGO initiatives, dedicated standards (e.g., IEEE and ISO) etc.
 - **Personal reflection:** provide your own perspective on the identified issue and existing/found solutions to tackle it.
- **Conclusions:** provide concluding remarks for the issue identified and existing/applied solution using the four resources found by yourself and relate these findings to your personal assessment following the structure below:
- **Discuss one or two concluding remarks.**
 - **Discuss the findings** on the existing/proposed solution considered to tackle the issue identified.
 - **Provide an answer and own reflection to the following question:** In your opinion, is the existing/proposed solution suitable to

tackle the identified issue or should it be considered a total change in approaching it?

Good luck!