Ethics and Human Aspects of AI: Case Descriptions

Dear Students in 5ARC0,

In what follows you find a set of case descriptions that serve as topics for your project in this course. Clients have agreed to meet with you at least once during the course to answer your questions about a challenge they face. Your job is to design an AI-based tool, create a mock-up or demo of the tool, and design an interface (a context of interaction) for using the tool. Your design should respond to the challenge identified by the client.

The overview of topics is:

EC: AI Generated Ethics Cases

AIER: Artificial Intelligence for Ethics Review

EDS: AI for Eating Disorder Symptoms

Your first step is to do a literature review of the target context, helping to identify key issues and challenges that arise in that context. You will use this to motivate your first ideas for a design. The first assignment is an initial proposal. You find the requirements for that proposal on Canvas.

Good luck and best wishes,

The Instructor

Topic EC

Ethics cases are used in different kinds of education and discourse to help people see what follows from ethical principles and concepts in a given context. They highlight philosophical or practical difficulties that require discussion when applying ethical principles and concepts in real life. Such cases can reveal hidden assumptions that lead to conflicting judgements among stakeholders, help sharpen one's beliefs about what is at stake, or make possible counterintuitive or problematic outcomes explicit. Typically, such cases have a particular format—an elaborate description of which can be found at 4TU.Ethics. In this topic, you will develop a design for an AI-based tool that writes ethics cases that can be used in education.

Although ethics cases are popular in applied ethics[1], they are also used in many other areas of ethics education, and are often linked with philosophical and psychological research, as in the famous "Trolley Problem". Trolley Problem (BBC). As these examples illustrate, ethics cases can be real or imaginary. Furthermore, their function is extremely diverse. The same ethical case can be employed to achieve a variety of different aims. The Trolley Problem, for instance, can be used as evidence for the claimed truth or falsity of the same moral theory.

You are asked to specify this topic so that your tool creates new cases on a particular topic (e.g., medical ethics, AI and human rights, etc.), for one or more specific purposes (discussion, written examinations, etc.), and with a specific format. As part of this specification, you should also select a destination context such as a specific educational use.

This is not a technical assignment. Hence the grade is not based on technical aspects of the design. You may explore the landscape of commercial, off-the-shelf tools, although you are not required to use any of them. You will share potential tools and strategies with other students.

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[1] See this resource for a limited list of ethical cases in applied ethics.

Topic AIER

A typical requirement for scientific researchers is to undergo a process of ethics review for research projects that use humans as experimental subjects, or that affect humans by using their data or creating experimental conditions in their everyday environment.

This review process can be laborious for researchers and for ethics reviewers.

In this assignment topic, you develop a design for a tool (e.g., a chatbot or text processor) that can assist ethics reviewers and/or researchers with the process of ethics review in a substantive way, for example by helping them to identify ethical issues that are present in a research protocol, or helping them to improve a research protocol to provide more complete information to reviewers.

You will need to select a destination context such as AI research., medical research., or psychological research.

For medical ethics review, you might wish to browse the materials at Home | Onderzoek met mensen. in Dutch or English.

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Client: Steph

Topic EDS

In many countries, the number of young people with an eating disorder has grown in recent years. Yet the waiting time for appropriate treatment is long, leaving some of these young people in a care gap. Recently, experimental interventions have been developed involving Featback, a fully automated, easily accessible system for people who may have eating disorders. Such systems have shown promise in experimental trials. You can find more information at https://featback.nl/

In this topic, students explore what role AI might play in an automated system like Featback, and what ethical issues might arise in the process, such as risks to users, misuse, bias, etc. Students are invited to create a mock-up or demo of a user-interface in which AI is integrated. The client is willing to discuss sharing data from an earlier scientific study.

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Reference:

Rohrbach, P.J., Dingemans, A.E., Spinhoven, P., Van Ginkel, J.R., Fokkema, M., Wilderjans, T.F., Bauer, S. and Van Furth, E.F., 2022. Effectiveness of an online self-help program, expert-patient support, and their combination for eating disorders: Results from a randomized controlled trial. *International Journal of Eating Disorders*, *55*(10), pp.1361-1373.