IN5620 Individual assignment fall 2024

Updated: 21 August 2024

In this course, there are three deliveries for the individual assignment. The first is after module 1, the second after module 2 and the third after module 3. Think of this as one "document" that will evolve and be updated through three iterations.

You are invited to write and draw for this individual assignment. You are further invited to discuss, present, and talk about this assignment in your group and class. You will hand in individual assignments.

1 First module - and first iteration

For the individual assignment in module 1, there are four main topics:

- Concepts, definitions and history of interaction with AI and autonomous systems.
- Universal Design and Interaction with AI.
- Human-Robot Interaction
- Own use and interaction with AI tools.

The writing task for these three topics is described below:

1.1 Concepts, definition and history of interaction with AI and autonomous systems

First, write a section about how the term Artificial Intelligence came about, and the history of AI. Why, how, what, when, where and by whom?

Then, find three different definitions of AI. Describe and explain these three definitions, for example by whom it was defined - and in what community. Based on these three definitions, make one definition yourself - and describe and explain your definition. There is no right or wrong here – but try to argue for what you mean by your definition. This invites you to think and write carefully about what we talk about when we talk about "intelligence"; what we talk about when we talk about "artificial", and what we mean when we talk about "artificial intelligence".

Write some sentences about the similarities and differences between human autonomy and machine autonomy. Write some sentences about similarities between the concept of automatic and the concept of autonomous.

Select one of the articles from the curriculum. Write a brief review of this article. If there is something unclear, or you disagree with, or that you question with the article – write about this.

Find one contemporary company that works with AI and describe how this company present AI on their web pages. In what way does this company talk about AI, as a product, as a platform, as a service, framework, as an ecology or as an “idea”?

Select one documentary or a fictional film, book or game that is about the use and interaction with AI and interaction between people and AI. Describe in your own words how human interaction with AI is portrayed in this work. There are indeed many stories about AI, and stories and narratives evolve and may change over time. Stories and narratives about AI are some of the conditions that give possibilities for changing our beliefs, opinions and understanding. It is said that Arthur B. Clark proposed: “Any sufficiently advanced technology is indistinguishable from magic”. Imagine when the telephone came about; and you suddenly were able to communicate with human beings that were far away - out of sight and out of reach. “Magic” at that time.

1.2 Robots and AI systems

First, write a section about how the word Robot came about.

Then, find two different definitions of Robot. Describe and explain these definitions. Based on these definitions, make one definition yourself, and describe and explain this definition. Is a chatbot a form of a robot with your definition?

Discuss the relationship between AI and Robots. Is “a robot” different from “an AI”? In what ways are they different and similar? Bring in the definitions that you described earlier about robots and AI for this discussion.

Find one contemporary physical robot, either described in a research article - or a commercial robot and describe how this robot moves and how a human user interacts and uses the robot in a specific situation.

1.3 Universal Design and AI systems

Please find and describe a definition of Universal Design. Explain this definition and how you understand what Universal Design is about.

Describe the potential of AI for human perception, human movement and human cognition/emotions. You are encouraged to use examples. Please provide two examples of AI systems for including users in new ways.

Describe the potential of AI for both including and excluding people. You are encouraged to use examples.

In the WCAG 2.1 principles and in many of the Human AI-Interaction guidelines the concepts “understand” and “understanding” are used. Explain briefly in what way you make sense of

the concepts “understand” and “understanding”. Then address the question: Do machines understand?

You find the WCAG 2.1 principles here:
https://www.w3.org/TR/WCAG21/

1.4 Guideline for Human-AI Interaction

Please select one of the 18 guidelines for human-AI interaction from Microsoft, and describe this guideline with a different example than what is given by Microsoft.

Search, and find one set of HCI design guidelines. Discuss briefly the similarities and differences between the HCI design guidelines and the Human-AI interaction guidelines.

You find the Microsoft guidelines for human-AI interaction here:
https://www.microsoft.com/en-us/research/blog/guidelines-for-human-ai-interaction-design/

1.5 Journal - everyday engagement, interaction and use

You know how to write and read. You are familiar with writing and reading. The tools and “things” you use for these activities vary with the situation and tasks at hand. You are invited to experiment with these basic activities, read and write, with various tools – and reflect on your experiences.

Please spend 3 minutes for two days writing a journal with pen and paper. The next two days, by way of a QWERTY keyboard and screen. For the next four days, write with your voice by way of a microphone and corresponding service for voice recognition and voice–to–speech program. This adds up to six days in total.

Every day you write, pay attention to - and express what you experience with using the different tools and methods or ways of writing. Spend two minutes for this reflection every day. In total, this will be five (2+3) minutes every day spent on this activity. There will be some overhead in setting up each of the three writing methods.

Be curious - and engaged in the writing task. Pay close attention to what your experience is when using the different writing tools (storage, processing, ways of representing symbols, ways of finding, aesthetics, effectiveness and efficiency, findability etc).

1.6 Practical information

Date of delivery: See the calendar on the course page.
We use the Vortex system for the deliveries. More information will be given on how to upload.
PDF format is to be used. Name your document: “username” iteration 1.

Think of a reader when you write, the reader is a fellow student and Asbjørn/Mike/Jo
Language: Of your choice, English or Norwegian.

Maximum number of pages: 6.
Make references to articles: Minimum 4.

Feedback

Feedback to another student is to be given *one week after the delivery deadline*.
Use the "two stars and a wish" structure for the feedback. Try to be specific about what you like – and why. In addition to what you think can be improved.

What to “do” with the feedback?

In the next iteration of the individual assignment, make an appendix where you first describe the feedback you have received in your own words – and then describe what you have done with the feedback that you received. It is ok to disagree with the feedback you have received, and then you can describe and argue why this is the case in the appendix. Try to be specific about what you have done with the feedback.

Happy writing!