Course document IN5010/9010 | 2024

1. learning outcomes

The learning outcomes for IN5010/9010 are as follows:

- understand the complexity of the relations between technology and society
- discuss social, environmental, and ethical challenges in technology design and use
- present your perspective on the ethical responsibility of the information technology developer/designer/innovator
- engage in critical and reflexive discussions of new and emerging information technologies

2. mandatory assignments

1. attendance 80%
We will keep track of your attendance. If you are ill and you will not be able to attend 80% of the time, please submit a 'legeattest' to the 'studieadmin'. If there is a special (personal/sensitive) circumstance you need to explain, talk to Maja or Andrea.

2. two presentations
Everyone needs to participate in two group presentations. See **presentations.**

3. group project
Every student will be a member of a small project group. The members of a group will work together on the *Zine* project. They will present their zines together on the last day of the course, May 13, in the form of an exhibition in the library. See **project**.

3. mandatory literature

February 5: Course compass

1. Raworth, Kate (2017b). A Doughnut for the Anthropocene: Humanity's compass in the 21st century. *The Lancet Planetary Health*, *1*(2), e48–e49. https://doi.org/10.1016/S2542-5196(17)30028-1

2. I am a Luddite (and So Can You!) Online: https://thenib.com/im-a-luddite/

February 12: Theory of technology

3. Franklin, U. (1990). The Real World of Technology (Chapter 1, revised edition). Toronto: Anansi. (pdf will be made available on the course website)

4. Winner, L. (1980). Do Artifacts Have Politics. In: Daedalus, 109(1). Online: http://www.jstor.org/stable/20024652

February 19: Power and technology

5. Feng, P. & A. Feenberg (2008). Thinking about Design: Critical Theory of Technology and the Realization of Design Possibilities. In P.E. Vermaas et al. (eds) *Philosphy and Design:*

From Engineering to Architecture. Dordrecht: Springer, pp. 105-118. Online: https://link.springer.com/chapter/10.1007/978-1-4020-6591-0_8

6. Birhane et al.(2022). Power to the People? Opportunities and Challenges for Participatory AI. In: *Equity and Access in Algorithms, Mechanisms, and Optimization*, Prorceedings of EAAMO '22. Online: https://arxiv.org/abs/2209.07572

February 26: Design reparations

7. Tironi et al. (2022). Problematizing Human-Centred Design: Notes on Planet-Oriented Design. In: *Industrial Design*. Online: https://www.diid.it/diid/index.php/diid/article/view/diid77-tironi-albornoz-chilet

8. van der Velden, M. (2013). Decentering Design: Wikipedia and Indigenous Knowledge. In: *Intl. Journal of Human–Computer Interaction*, 29: 308–316. Online: https://www-tandfonline-com.ezproxy.uio.no/doi/full/10.1080/10447318.2013.765768

March 4: Design Justice

9. Constanza-Chock, Sasha (2018). Design Justice: towards an intersectional feminist framework for design theory and practice. In *Proceedings of the Design Research Society*. Online: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3189696

10. D'Ignazio, Cathrine and Lauren Klein (2020). Introduction: Why Data Science Needs Feminism. In: *Data Feminism*. Cambridge: The MIT Press (20 pp). Available online at https://data-feminism.mitpress.mit.edu/pub/frfa9szd/release/6

March 11: AI futures

11. Coeckelbergh, M., & Loh, J. (2020). Transformations of Responsibility in the Age of Automation: Being Answerable to Human and Non-Human Others. In B. Beck & M. Kühler (Eds.), *Technology, Anthropology, and Dimensions of Responsibility* (Vol. 1, pp. 7–22). Online: https://doi.org/10.1007/978-3-476-04896-7_2

12. Jahic, Sanela (2023). No to AI, Yes to a Non-fascist Apparatus (video; 10:40). Online: https://vimeo.com/803431133

March 18: Resisting AI

13. Tanni, Valentina (2022). *The Great Algorithm*. Ljubljana: Aksioma Institute for Contemporary Art. Online: https://aksioma.org/pdf/aksioma_PostScriptUM_43_ENG_tanni.pdf

14. Hunger, Francis (2023). Unhype Artificial 'Intelligence'! A proposal to replace the deceiving terminology of AI. In: *Training the Archive* – Working Paper Series 6, Aachen/Dortmund (14 pp.). Online: DOI: 10.5281/zenodo.7524493

15. The cost of AI. VPRO Documentary (50 mins.). Online: https://youtu.be/bVnpH3DE-MY?feature=shared

April 8: Mapping technology controversies

16. Steen, M. (2015). Upon Opening the Black Box and Finding It Full: Exploring the Ethics in Design Practices. In: *Science, Technology, & Human Values*, Vol. 40, No. 3, pp. 389-420 Online: https://www.jstor.org/stable/43671241

April 15: Technofixes

17. Boehnert, Joanne (2018). *Design, Ecology, Politics: Towards the Ecocene*. London: Bloomsbury (Chapter 14. The technofix, 10 pp). (pdf will be made available on the course website)

18. Sætre, H. & Selinger, E. (2023). The Siren Song of Technological Remedies for Social Problems: Defining, Demarcating, and Evaluating Techno-Fixes and Techno-Solutionism. Online: https://papers.ssrn.com/abstract=4576687

April 22: Sustainable digitalisation

19. Lenz, Sara (2021). Is digitalization a problem solver or a fire accelerator? Situating digital technologies in sustainability discourses. In: *Social Science Information*, 60(2): 188-208. Online: https://doi.org/10.1177/05390184211012179

20. Lange et al. (2022). Why Digitalisation Needs to be Redirected: Redirecting Technologies for the Deep Sustainability Transformation. (Read Introduction and Chapter 1). Online: https://depositonce.tu-berlin.de/items/7ec6e179-6ef9-40b8-9d6c-c1419fea21e7

April 29: Regenerative technologies

21. van der Velden, M. (2021). 'Fixing the World One Thing at a Time': Community repair and a sustainable circular economy. In: *Journal of Cleaner Production*, 304, 127151. Online: https://www.sciencedirect.com/science/article/pii/S0959652621013706

22. Camrass, K. (2023). Regenerative Futures: Eight Principles for Thinking and Practice. In: *Journal for Future Studies*, 28(1), p. 89-99. Online: https://jfsdigital.org/wp-content/uploads/2023/09/Regenerative-Futures.pdf

4. exam

Students who have fulfilled the mandatory assignments of the course (see **2. mandatory assignments**) can participate in the course exam, which is an oral group exam. The exam will focus on the presentations and zines. There will be group questions and individual questions:

- The examiners will read (not grade) the group presentations and the group zine and individual zines
- The examiners will ask questions about the presentations and zines
- The examiners will ask questions that relate the mandatory literature to the presentations and zines
- There will be individual and group questions
- The date of the exam will be decided with together with you

The **grading** is from A – F. Some examples of exam questions will be provided later in the course.

5. two presentations

Everyone needs to participate in two group presentations:

Presentation I: Design Justice --- March 4
What are the design requirements for a social care robot based on the guidelines of Design Justice and Data Feminism. Answer some or all of the following questions:

- How would such a care robot look like?
- What would this robot be able to do?
- What would this robot definitely not do?
- When would such a robot be used?
- For whom should we design such robots?

You will work on this assignment in class.

Presentation 2a: Mapping Tech Controversies --- April 8

Each group will present a mapping of a technology controversy in Norway. Make a presentation as if you are addressing an international audience at an academic conference. The presentation needs to explain:

- the history of the tech project
- the particular social, environmental, ethical and/or political aspects that made it into a controversy
- different opinions about the controversy

Your presentation should contain references to literature or media articles and consists of 6-10 slides. You will present the presentation in class (duration = 10 – 12 minutes)

6. group project

The group project consists of two parts: an individual assignment and a group assignment. The individual assignment is called **Take back the data!**, a critical perspective on social media, surveillance, big data, AI, automation, data mining, machine learning, etc. You use one (1) A4 paper to create the mini-zine and you can make copies of it for distribution during the exhibition.

The group assignment is a zine based on your **Mapping a Tech Controversy** project. You can add new information and images. You use A4 papers folded in half and you can use as many pages as you need. The presentation of both zines will take place on **May 13 in the IFI Library.** This group project is a mandatory assignment for all students. See Project Brief in the Document-folder on the course web page.

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