Ethical Issues and Concerns in Digital Innovation
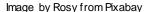## ISM-E2002

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Image by Rosy from Pixabay

Learning Objectives

- **Learn about key concepts and theories of ethics**

- **Understand the ethical issues around the design and use of information systems**

- **Apply ethical principles/concepts in practice**

- **Knowledge regarding ethical debates around emerging technologies**

Schedule

When	What
24.10	Lesson 1: Introduction to the foundations of ethics and technology
31.10	Lesson 2: Ethics and regulations, policies and laws
7.11	Lesson 3: Ethical issues and concerns in designing digital services
14.11	Lesson 4: Ethical issues and concerns in using digital services
21.11	Lesson 5: Ethics of AI and Emerging Technologies
28.11	Group presentation (8:15-10:30) Guest Lecture (10:30-12:00)
1.12	Group report (essay) submission
5.12	Final exam
29.1	Exam retake

Assessment method

Group presentation in class (10%)

Group Report/Essay (40%)

Final exam (50%)

Teaching method

8:15-9:15   - Self-study (reading articles or watching videos)

9:15-12:00 - Lectures & Class activities (including debates, case studies, simulations)

Study material

We provide you with material related to each session
- Research articles
- Case studies
- Publicly available reports
- Videos

Additional reading (not required)
- Ethical IT innovation: A value-based system design approach by Sarah Spiekermann (2019).
- The Handbook of Information and Computer Ethics by Kenneth E. Himma and Herman T. Tavani (2008)

Exam

When: Tue 5.12, 9:00-12:00

Where: Undergraduate Centre, U4 - U142

Format: Essay/open-ended questions

Exam retake: Mon 29.1, 16:00-19:00

Remember to register for the exam retake!

Group assignment

Form a group, choose a specific digital service, and analyze the selected service using a given ethics framework (we will announce this after groups are formed)

Group size: max 4 members

Presentation: 10 min + 5 min discussion

Report: scientific format, approximately 4000 words, it should also include a brief evaluation of the framework

Contact

We use MyCourses announcements as the main communication channel

- If you have any questions about the course, check the FAQ page, and if you cannot find an answer to your questions ask them here.

If needed, you can contact us via email or book a meeting with us (office hours for this course are on Tuesdays, 13:00 – 15:00).

- Kari Koskinen kari.m.koskinen@aalto.fi
- Hadi Ghanbari hadi.ghanbari@aalto.fi

Syllabus

Session 1 – 24.10

Introduction to the course (all - 30 min)

- Introductions
- Practicalities

Introduction to the foundations of ethics and technology

- Neutral vs. politics of technology
- Key ethical foundations
- Business ethics

Debate: Is Bitcoin ethical or not (from a proposed perspective)? If not, how could we make it ethical?

Reading

- Mingers, J., & Walsham, G. (2010). Toward Ethical Information Systems: The Contribution of Discourse Ethics. *MIS Quarterly*, *34*(4), 833–854.
- https://en.wikipedia.org/wiki/Bitcoin

Session 2 – 31.10

Ethics and regulations, policies and laws

- Regulation and ethics
- Cyberlaw
- GDPR

Reading

- Chris Jay Hoofnagle, Bart van der Sloot & Frederik Zuiderveen Borgesius (2019) The European Union general data protection regulation: what it is and what it means, Information & Communications Technology Law, 28:1, 65-98.

Session 3 – 7.11

Ethical issues and concerns in designing digital services
- Digital innovation and the role of software/IS development
- IS development and the role of developers
- Ethical IS development

Privacy-by-Design: The Game

Reading
- Cavoukian, A. (2009). Privacy by design.
- PbD Card Game Rules
- Sourour, B. "The code I'm still ashamed of." freeCodeCamp.
- Pangburn, D. J., D. J. Pangburn, and D. J. Pangburn. "Even This Data Guru Is Creeped Out By What Anonymous Location Data Reveals About Us." Fast Company.

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Session 4 – 14.11

Ethical issues and concerns in using digital services
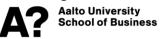- Digital services in modern society
- Ethical use of digital services

Case study: Apple and the FBI: User Privacy and Law Enforcement Cooperation

Debate: How can we use Generative AI (e.g. ChatGPT) ethically?

Reading/watching
- Friedman, B., Kahn, P. H., Borning, A., & Huldtgren, A. (2013). Value sensitive design and information systems. *Early engagement and new technologies: Opening up the laboratory*, 55-95.
- When big tech targets healthcare (2021) Mostly in English, but some parts in other languages, English translation provided by us for those parts

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Session 5 – 21.11

Ethics of AI and Emerging Technologies

- Principles of ethical AI design

- Challenges in applying the principles

Case study: Responsible A.I.: Tackling Tech's Largest Corporate Governance Challenges

Reading/watching

- Martin, K. (2019). Designing ethical algorithms. *MIS Quarterly Executive June*.
- Peter, S., Riemer, K., & Hovorka, D. (2020). Artefacts from the future: Engaging audiences in possible futures with emerging technologies for better outcomes.
- 1999 A.D. (1967)

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Session 6 – 28.11

Guest Lecture on AI Ethics by Anna Seppänen, Ethicist & CEO of *CoHumans*

- *"Anna is a deep expert in ethics who has gained her multifaceted know-how through working at the intersection of academic and business worlds. Anna helps work communities through combining deep ethical perspectives with everyday experiences and bringing creative ideas determinedly into sustainable activity."* (Source: CoHumans.fi)

Group presentations