

Value-based design for digital innovation and emerging technologies (ETHZ: 751-1070-00L / UZH: 10SMVBD)

Lecturers:	Melanie Paschke (ETH Zürich), Verena Lütschg (Tomorrow Consulting)
Location:	ETHZ, tbd
Dates:	3.10.24, 09:00 -17:00, 4.10.24, 09:00 - 17:00, 25.10.24, 09:00 - 13:00
Credit Points:	1 ECTS (30 learning hours)

Registration: No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: 10SMVBD
Mind the enrolment deadlines at UZH: [Link](#)

Course Description

Digital innovation and emerging technologies may enable or disrupt environmental, economic or societal improvements. A responsible way forward considers values in the development and implementation of the digital or technological applications. The blended-learning course with face-to-face block course elements, self-learning phases and case studies is at the intersection between technology ethics and value-sensitive design.

This course informs students about the values and ethical considerations associated with the use and development of emerging technologies. It will equip scientists with a value-based design approach, which they could bring with when they enter today's increasingly digitalized society. Case studies around artificial intelligence, generative AI, bias and inclusion, autonomous decision-making or drones in environmental and other context will be discussed in the group exercises and design requirements for the concepts of the next generation of technologies will be formulated by participants.

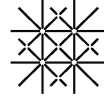
Learning Objectives

1. Be informed about the ethical considerations associated with the use and development and implementation of emerging technologies in different settings of our society.
2. Learn how ethical reflections and value statements can provide guidance for future research and design decisions.
3. Understand frameworks of value-based design from the perspective of ethical dilemmas and societal challenges.
4. Apply a value-based design process to emerging technologies and applications.
5. Learn different tools and instruments to analyze risks and minimize harms of new technology.



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6. Acquire the ability to articulate value conflicts and to propose creative design solutions for addressing them.

Course Program

Block 1 (8 hours)

Day 1 (face-to-face): An introduction to the ethics and values in the context of digital and technological innovation. An introduction to the value-sensitive design framework (VSD) will conclude the first session.

Block 2 (8 hours)

Day 2 (face-to-face): An introduction to the value-based design approach (VBD).

In between

Self-study session (20 hours): Self-guided in the OLAT environment: webinars and online course material on key knowledge points.

Group work (20 hours): Participants will apply the value-based design approach to a technology application or an innovation project of their choice in a small group.

Final Half-Day (4 hours)

Day 3: Individual presentation of own project, using the tools and approaches introduced and exercised during the course in a pitch to a jury.

Target group

PhD students of all faculties and departments

Prior Knowledge: none

Number of Participants: 20

Individual Performance and Assessment:

Online self-learning material documented in an individual learning journal. Final day: Groups' presentation.