

ETHICAL AND LEGAL CHALLENGES OF AI AND DATA SCIENCE

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Course website:

<https://tinyurl.com/y9pcrtm4>

Target group:

BSc and MSc students in CS, AI, Data Science, Law and Philosophy

Course format:

The main part will be held in the form of a two week intensive block course (9:00-12:00 and 13:30-17:00) in the time period from 14.-25. September.

A mixture of lectures (including invited lectures by experts), student presentations and student projects/group work will be offered.

Student deliverables:

Presentation (30 + 15 min), report (about 10 pages), further contributions depending on selected topic (surveys, programming, modeling, empirical studies), participation in discussions

When and where:

FU Berlin, 14.-25. Sep. 2020 (as online course)

Course Description:

Ethical and legal challenges in AI and Data science will be identified and options to resolve or control them will be explored and discussed. The list of topics that will be addressed include:

- Survey and discussion of international positions and recommendations on ethical and legal regulation of AI and data science applications
- Elaboration of a spectrum of critical and non-critical applications of AI and data science technology
- Ethics of technology and technology assessment
- Exemplary discussion of selected, critical application areas, including e.g. military applications, automated financial markets, criminal profiling, etc.
- Adversarial attacks, and potential countermeasures
- Bias in data science and machine learning, and potential countermeasures
- Means to explain and assess decision making in data science and AI
- Means to enforce ethical and legal control in data science and machine learning
- Means to enforce ethical and legal control in large, integrated AI systems
- Ethics & security, and software licensing

Further Contributors:

- Jürgen Altmann (U Dortmund): Military AI applications
- Sabine Ammon (TU Berlin): Ethics of technology
- Vaishak Belle (U Edinburgh): Explain. & Fairness in ML
- Huimin Dong (Zhejiang U): Logic for Law and Ethics
- Philipp Hacker (HU Berlin): Discriminating algorithms
- Volker Roth (FU Berlin): Secure Identity
- Marcus Soll (U Hamburg): Adversarial Attacks