ETHICAL AND LEGAL CHALLENGES OF AI AND DATA SCIENCE

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Website:

https://cbenzmueller.github.io/teaching/2020-EthLegChall

Target group:

Master's students (Bachelor's students from the fifth semester onwards)

Course format:

The main part of the seminar will be held in the form of a two week intensive block course (9:00-12:00 and 13:30--15:00) to be held 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 (most likely 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 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

• Exemplary discussion of selected, critical application areas, including e.g. military applications, automated financial markets, criminal profiling, etc.

• Adversial 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 and security

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 (Zheijang U): Logic for Law and Ethics

• Philipp Hacker (HU Berlin): Discriminating algorithms

• Volker Roth (FU Berlin): Secure Identity

• Marcus Soll (U Hamburg): Adversarial Attacks