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FÜR MATHEMATIK, INFORMATIK  
UND NATURWISSENSCHAFTEN

TAMING THE MACHINES

# FRONTIER AI REGULATION:

FROM TRUSTWORTHINESS TO SUSTAINABILITY

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PUBLIC LECTURE  
SERIES

## About the lecture

Current AI regulation in the EU and globally focus on trustworthiness and accountability, as seen in the AI Act and AI Liability instruments. Yet, they overlook a critical aspect: environmental sustainability. This talk addresses this gap by examining the ICT sector's significant environmental impact. AI technologies, particularly generative models like GPT-4, contribute substantially to global greenhouse gas emissions and water consumption.

The talk assesses how existing and proposed regulations, including EU environmental laws and the GDPR, can be adapted to prioritize sustainability. It advocates for a comprehensive approach to sustainable AI regulation, beyond mere transparency mechanisms for disclosing AI systems' environmental footprint, as proposed in the EU AI Act. The regulatory toolkit must include co-regulation, sustainability-by-design principles, data usage restrictions, and consumption limits, potentially integrating AI into the EU Emissions Trading Scheme. This multidimensional strategy offers a blueprint that can be adapted to other high-emission technologies and infrastructures, such as block chain, the meta-verse, or data centers. Arguably, it is crucial for tackling the twin key transformations of our society: digitization and climate change mitigation.

**Tuesday, 09. July 2024**  
**18:15–19:45 (CEST)**

**Flügelbau West, 2. OG, Raum W 221**  
**Edmund-Siemers-Allee 1**  
**20146 Hamburg**

ETHIK IN DER  
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