03-IMS-KPKI	Kritische Perspektiven auf Künstliche Intelligenz
	Critical Perspectives on Artificial Intelligence

Lehrform *(teaching format)* / **SWS** *(hours per week)*: 2SE

Kreditpunkte *(credit points)*: 3

Turnus *(frequency)*: i.d.R. jedes WiSe

Inhaltliche Voraussetzungen *(content-related prior knowledge/skills)*: KEINE

Sprache *(language)*: Deutsch

Lehrende *(teaching staff)*: AG Informationsmanagement (Lopez)

Studiengang *(degree program)*	Module	Semester
Informatik (Master)	IMS	ab 1.Sem.
AI and Intelligent Systems (Master)	AI-R-MS	from 2nd sem.
Digital Media (Master)	DMM-MA–2	from 1st sem.

Lernergebnisse / *Learning Outcome*:

- Students will be able to critique societal and environmental impacts of the development and deployment of data-driven AI models: e.g., bias, data labor, energy consumption,… (see below: Contents).
- Students will be able to diagnose how bias in training data can result in discriminatory outcomes.
- Students will be able to explain the methodical challenges in the testing of bias and AI hallucinations.
- Students will be able to argue a grounded opinion on innovation versus regulation in the context of AI, for example regarding the use of copyrighted material for training.
- Students will be able to describe global mechanisms of exploitation and “digital (neo-)colonialism”.
- Students will be able to describe how global politics, for example GPU export control, shape the centralization of power in LLM development.
- Students will be able to reflect on their own use of LLMs in the context of studying and learning.

Inhalte / *Contents*:

- Critical reflection of contemporary development and deployment of AI along all stages of the machine learning life cycle: (1) data collection, (2) data annotation and labelling, (3) model selection, (4) model evaluation via benchmarks, (5) model deployment, focusing on the following issues:
- Turning social phenomena into data
- Bias in training data and discriminatory outcomes
- Bias and hallucination testing methods
- Copyright issues of training data collection
- Data labor and exploitation in the Global South
- Data centers and energy and water consumption
- GPUs and global politics
- Challenges of legal regulation of AI
- AI and universities: LLMs and “impostor syndrome”, writing beyond LLMs as a thinking technique

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Hinweise *(remarks)*: In der Tabelle sind nur die primären/spezifischsten Module aufgelistet, denen diese Veranstaltung zugeordnet ist.