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Bachelor's / Master's thesis

AI service provisioning: How leading AI technology companies shape AI business models

Leading information technology companies are increasingly dominating the field of artificial intelligence (AI) besides public research institutions. Rapid technological advancements have been brought through immense funding and strategic focus of such private companies. However, while previous work in AI has been driven by openness in model, data, and know-how sharing, current advancements are increasingly suffering from proprietary and closed structures. The leading AI technology companies such as OpenAI, Microsoft, Google, AWS, and IBM often refrain from sharing their know-how in order to monetarize their previous research investments. Consequently, state-of-art AI technology is provisioned through proprietary cloud services of the AI technology companies, changing how other businesses and consumers can adopt the AI technology and integrate it into their business models. The goal of this thesis is to investigate how state-of-the-art AI technology is provisioned by leading AI technology companies and what implications arise.

The focus of the work will be defined in an initial meeting with the supervisors. This topic can be chosen either as Bachelor's or Master's thesis, as the scope varies depending on the type of thesis.

The thesis can either be written in English or German, although English is strongly recommended.

Empfohlene Einstiegsliteratur:

- Geske, F., Hofmann, P., Lämmermann, L., Schlatt, V., & Urbach, N. (2021). Gateways to Artificial Intelligence: Developing a Taxonomy for AI Service Platforms. In: ECIS 2021 150.
- Mucha, T., & Seppala, T. (2020). Artificial Intelligence Platforms – A New Research Agenda for Digital Platform Economy. In: ETLA Working Papers No 76., Available at http://dx.doi.org/10.2139/ssrn.3532937
- Lins, S., Pandl, K., Teigeler, H., Thiebes, S., Bayer, C., & Sunyaev, A. (2021). Artificial Intelligence as a Service. In: Business & Information Systems Engineering (63:4), 441-456, Available at https://aisel.aisnet.org/bise/vol63/iss4/8
- Schneider, J. (2022). Foundation models in brief: A historical, socio-technical focus. In: arXiv., Available at https://arxiv.org/abs/2212.08967

Betreuer: Jonathan Lautenschlager, M.A.

Nutzung von KI-basierten Tools: Beurteilungen an der Frankfurt University of Applied Sciences müssen die Feststellung der Leistung der Studierenden ermöglichen. Zu diesem Zweck muss die eigene Leistung, die in einer Arbeit enthalten ist, von der Leistung anderer unterschieden

werden. Es ist demnach notwendig, die verwendeten Werkzeuge zu verstehen und deren Nutzung zu kennzeichnen und ihren Einsatz im Detail zu erklären. Dies dient der Bewertung der Leistung und gibt den Studierenden die Sicherheit, dass ihre Arbeit nicht im Nachhinein vor dem Hintergrund anderer Normen neu bewertet wird. Ein entsprechendes Dokument zur "Erklärung über die Nutzung generativer KI-Werkzeuge" erhalten Sie von ihrer/ihrem Betreuer*in.