Universität Bremen

Fachbereich 9 - Medienstudiengänge
Department 9 - Media Courses

Kommentar zur Lehrveranstaltung im WiSe 2023/24
Description of seminars

Veranstalter*in: *Lecturer:*	Prof. Dr. Cornelius Puschmann
Titel (dt.):	
Titel (engl.): (immer angeben)	Communication and Artificial Intelligence

Beschreibung:
Description:

Artificial intelligence (AI) is widely considered a key technology of human progress – as well as a source of grave potential societal risks – in the 21st-century. Significant scientific innovation in recent years has equipped AI with transformative potential in a wide range of areas, from the economy and politics to culture and healthcare. It is easy to overlook amidst the hype surrounding AI that communication is very much at the heart of these developments. Large language models (LLMs) in particular are fundamentally changing the calculus of communication as something innately human, equipping bots and other virtual entities with the ability to communicate increasingly coherently and convincingly. Services based on proprietary models, such as Open AI's ChatGPT (Based on GPT-3 and GPT-4), Google's Bard (based on LaMDA) and a variety of other services are being used in a dazzling array of communicative contexts, from creating business websites to writing student papers. Beyond text, there are generative models that can create images, video and audio from written prompts. And beyond proprietary models, an increasing number of powerfully open source models exist (e.g. Meta's Llama2).

The aim of this class is to explore the potential of AI technologies that in some way impact communication (which will mostly mean generative AI), combining a theoretical and highly practical outlook on the subject. We will first delve into the underlying technologies underpinning contemporary generative AI, namely deep neural networks and the so-called Transformer architecture (GPT stands for *Generative pre-trained transformer*). We will also discuss theoretical implications of generative AI for communication and media research.

In a second phase of the class we will work on using generative AI experimentally and creatively in the context of individual or group-based projects. While no knowledge of programming is required, students are expected both to do reading of scientific texts in English and to possess a keen interest in the technical basis of generative AI and the implications of its design for social science.

Literatur:
Literature:

Guzman, A. L., & Lewis, S. C. (2020). Artificial intelligence and communication: A Human–Machine Communication research agenda. *New Media & Society*, 22(1), 70–86. https://doi.org/10.1177/1461444819858691

Hepp, A., Loosen, W., Dreyer, S., Jarke, J., Kannengießer, S., Katzenbach, C., Malaka, R., Pfadenhauer, M., Puschmann, C., & Schulz, W. (2023). ChatGPT, LaMDA, and the Hype Around Communicative AI: The Automation of Communication as a Field of Research in Media and Communication Studies. *Human-Machine Communication*, 6(1). https://doi.org/10.30658/hmc.6.4

Hermann, E. (2022). Artificial intelligence and mass personalization of communication content—An ethical and literacy perspective. *New Media & Society*, 24(5), 1258–1277. https://doi.org/10.1177/14614448211022702