



Abschlussvortrag Masterarbeit Payal Bharatbhai Kaklotar

„A Systematic Literature Review on the Integration of Large Language Models in Psychotherapy: Effectiveness and Ethical Considerations“

The integration of LLMs makes a promising advancement for psychotherapy, by offering more accessibility, personalization, and efficacious treatment, but also presents various challenges in terms of ethical considerations, technical integration, and therapeutic compatibility. This systematic literature review explores the potential uses and risks of LLM in the context of mental health care, including their role in expanding the availability of mental health assistance, ethical dilemmas, and hybrid therapeutic strategies. The methodology adheres to the PRISMA 2020 guidelines, employing well-defined inclusion criteria, a variety of information sources, and bias evaluation methods to ensure a comprehensive and balanced analysis.

This review summarizes peer-reviewed journal articles, conference papers, and book chapters that investigate the application of LLMs relevant to psychotherapy and highlight the effects of LLMs on treatment accessibility, patient engagement, ethical standards, and therapist augmentation. Searches in the Web of Science and Google Scholar were performed until November 2024. In total, 28 studies were included, spread over three main research areas: (1) Accessibility and Personalization, increasing patient engagement and scalability; (2) Ethical Issues, such as privacy, bias, and accountability; and (3) Hybrid Therapeutic Models, focusing on AI–human collaboration in therapy.

The findings indicate that LLMs are able to improve accessibility and personalization within mental health care, while also reducing symptoms of depression and anxiety. However, there are variations in effectiveness, and ethical issues such as data privacy and bias continue to exist. In order for them to be integrated successfully, ethical frameworks, clinician training, and ongoing evaluation are necessary. This work synthesizes existing research to facilitate well-informed discussions across clinicians, researchers, and policymakers about responsible advances in AI-augmented psychotherapy.

Betreuer der Arbeit: Prof. Dr. Jörg P. Müller (Institut für Informatik), Prof. Dr. Benjamin Leiding

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