Interactive AI Infused Chatbot for Treatment of Mental Illness

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Abstract*: Mental health disorders continue to pose significant challenges worldwide, with access to effective treatment often limited by various barriers. In this context, we propose an innovative solution that harnesses the VEDAR algorithm to develop an interactive AI-infused chatbot tailored for the treatment of mental illness. The VEDAR algorithm, which stands for Validation, Empathy, Dynamicity, Adaptability, and Responsiveness, serves as the cornerstone of our chatbot's design, ensuring a human-like, empathetic interaction that adapts dynamically to users' needs. The chatbot's architecture integrates advanced natural language processing (NLP) capabilities powered by the VEDAR algorithm to engage users in meaningful conversations. Leveraging the principles of cognitive-behavioural therapy (CBT), mindfulness techniques, and positive psychology, the chatbot delivers personalized interventions, including psychoeducation, coping skills training, and mood tracking. Privacy and confidentiality are prioritized through secure data encryption and adherence to ethical guidelines, ensuring users' trust and confidence in the platform. The integration of the VEDAR algorithm into our interactive AI-infused chatbot represents a significant advancement in mental health treatment, offering scalable, accessible, and stigma-free support to individuals worldwide. The chatbot utilizes advanced natural language processing (NLP) techniques, guided by the principles of the VEDAR algorithm, to engage users in empathetic and meaningful conversations. This innovative solution has the potential to revolutionize mental health care delivery, addressing unmet needs and improving overall treatment outcomes.*

Keywords: Mental illness detection, natural language processing, anxiety, depression, chatbots, conversational agents, vedar algorithm

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