

AI Powered Mental Health Support

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Introduction

- **Brief Overview:** Uses AI (NLP, machine learning) to provide real-time mental health assistance through chatbots, virtual therapists.
- **Importance/Relevance:** Enhances accessibility, reduces stigma, and offers 24/7 support, bridging the gap in traditional mental health care
- **Key Problem Statement:** High costs, stigma, and limited professional availability hinder mental health support. AI aims to provide affordable, timely, and personalized solutions.

Example:

- **Topic:** AI chatbots for mental health (e.g., Woebot, Wysa).
- **Relevance:** These AI-driven tools helping users manage stress and anxiety effectively.

Objectives

- **24/7 Accessibility:** Provide continuous mental health support anytime, anywhere.
- **Reduce Stigma:** Offer anonymous and judgment-free assistance.
- **Early Detection:** Identify mental health concerns through AI-driven analysis.
- **Personalized Support:** Adapt responses based on user inputs and needs.
- **Affordable & Scalable:** Deliver cost-effective solutions to a large number of users.

Problem Statement

- **Limited Accessibility:** Mental health support is not always available or affordable.
- **Stigma & Reluctance:** Fear of judgment prevents people from seeking help.
- **Shortage of Professionals:** Demand for therapists exceeds supply.
- **Delayed Intervention:** Early signs often go unnoticed, leading to severe conditions.

Example : Traditionally therapy is costly , stigmatized, and has long wait times. AI chatbots like wysa provide instant anonymous support, making mental health care more accessible.

Methodology

- **Data Collection:** Gather user inputs, sentiment data, and mental health surveys.
- **AI Model Training:** Use NLP and machine learning to analyze emotions and responses.
- **System Development:** Build AI chatbots and virtual assistants for support.
- **Testing & Validation:** Evaluate accuracy and effectiveness through trials.

Conclusion

- **Summary:** AI-powered mental health support offers accessible, personalized, and stigma-free assistance.
- **Importance:** Enhances accessibility, early detection, and personalized care, bridging gaps in mental health services.

References

- **AI in Mental Health Monitoring** – Reviews AI techniques for personalized care.
- **AI Chatbots Effectiveness** – Examines chatbot impact on mental health.
- **AI for Positive Mental Health** – Explores AI applications in well-being.
- **AI Chatbots Review** – Assesses chatbot effectiveness in therapy