



“AI-Based Therapist Chatbot for Emotional Support”

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Abstract: Mental health problems like stress, anxiety, and sadness are common today. Many people do not talk about their problems because they feel shy or do not have access to a therapist. This paper presents an AI-based therapist chatbot that provides emotional support to users. The chatbot uses Natural Language Processing (NLP) to understand what the user is saying and give helpful replies. When a user types their feelings, the chatbot analyses the text and responds with supportive messages. The system helps users share their emotions and feel better. This chatbot does not replace professional doctors, but it can give basic emotional support anytime.

Keywords: Artificial Intelligence, Chatbot, Emotional Support, NLP, Mental Health

I. INTRODUCTION

Mental health is very important for every person. Many people face problems like stress, anxiety, and depression in their daily life. Sometimes people feel lonely and do not have anyone to talk to.

Technology can help solve this problem. Artificial Intelligence allows computers to understand human language and communicate with people.

Chatbots are programs that can talk with users like a human conversation. The AI therapist chatbot helps users express their feelings. It listens to the user's message and gives positive and supportive replies. This system can help people feel better and reduce stress.

II. METHODOLOGY

The chatbot system is developed using simple steps.

First, a dataset related to mental health conversations is collected. This data helps the chatbot understand emotional messages.

Next, the data is cleaned and prepared using text processing methods. Unwanted symbols and words are removed.

Then Natural Language Processing (NLP) techniques are used to understand the user's message. The system checks the text and identifies the emotion of the user.

After that, a machine learning model is trained so the chatbot can recognize emotions and give suitable responses.

Finally, the chatbot interface allows users to type messages and receive replies.

III. MODELING AND ANALYSIS

The chatbot system works in several stages.

First, the user enters a message describing their feelings. The message is sent to the processing system.

Next, the text is analyzed using Natural Language Processing. The system identifies keywords and emotional patterns.

The machine learning model then detects the emotional state of the user such as sadness, stress, or happiness.



Based on this emotion, the chatbot selects a proper response and sends it back to the user. This process helps the chatbot communicate with users and provide emotional support.

IV. RESULTS AND DISCUSSION

The chatbot system was tested with different user messages related to stress and emotions. The results show that the chatbot can understand basic emotional expressions and give supportive replies.

Users can talk to the chatbot freely without fear or embarrassment. This helps them express their feelings and reduce emotional pressure.

Although the chatbot is helpful, it cannot fully replace professional therapists. It is mainly useful for providing quick emotional support.

V. PROBLEM STATEMENT

Mental health problems such as stress, anxiety, and depression are increasing in today's world. Many people feel uncomfortable talking about their emotions with others. Some people also do not have easy access to professional therapists due to cost, time, or location.

Because of this, many individuals keep their problems to themselves and do not receive the emotional support they need. There is a need for a simple system that can provide basic emotional support and allow users to express their feelings freely.

An AI-based therapist chatbot can help solve this problem by providing a platform where users can share their emotions and receive supportive responses at any time.

VI. OBJECTIVES

The main objectives of this project are:

1. To develop an **AI-based chatbot** that can interact with users and understand their emotions.
2. To use **Natural Language Processing (NLP)** to analyze user messages and identify emotional feelings.
3. To provide **supportive and motivational responses** to users through the chatbot.
4. To create a **simple and user-friendly interface** where users can communicate easily.
5. To provide **basic emotional support** and help users reduce stress and loneliness.

VII. CONCLUSION

The AI-based therapist chatbot is designed to help users share their emotions and receive supportive responses. The system uses Natural Language Processing and machine learning to understand user messages.

This chatbot provides a simple way for people to talk about their feelings anytime. It can help reduce stress and improve emotional well-being.

In the future, the system can be improved by adding voice interaction and more advanced emotion detection.

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