**AI Enabled Virtual P-therapist:**

Dr. Zolo uses audio-visual communication to help people with emotional/behaviour problems & mental illnesses.

**Background**: We are seeing uses of AI in the medical field especially in the areas of disease detection & robotic surgeries however much can be done in the areas of mental health issues, which is not only the need of the hour but AI can play a prominent role in its underline diagnosis as well as treatment. When suffering from conditions such as stress, anxieties, panic attacks, depression etc., it would be much easier for a person to open up to a chatbot. Also in scenario of extreme cases such as suicidal attempts can be averted in the nick of time, if we have a virtual therapist to talk to.

**Data and AI techniques**:

1. Diagnosis–Data from Psychometric Test Results/Hospitals/Institutes

AI Methods – Nearest Neighbour Classifier, Logistic Regression

Word Vector & NLP

B) Counselling–Data from Clinical Case studies

AI Methods – Word Modelling & Generation using Deep Learning

Use of Transformer & Recurrent Neural Networks

**How is it used**: The system is not intended to replace the existing model of practitioners, such as psychologists, therapist or psychiatrist but to enable first line of communication with affected person, who are hesitant or reluctant to open up to the outside world. The counselling chatbot should be able to ascertain the latest situation at regular intervals and persuade/motivate the user to visit a practitioner if required.

**Challenges**: Data availability & testing mechanism could be a key challenge for the said project. Also dealing with human emotions is a very sensitive issue , which needs to be taken care in the utmost possible way. The system should be able to incorporate Reinforcement Learning through the User itself by method of indirect questioning, before concluding or advising on any mental issue.

**What next**: From an audio-visual chatbot, the system can advance to a Virtual Reality medium (a bespoke metaverse), where Dr Zolo can virtually introduce his users to each other , may be who are having similar issues.

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