REAL-TIME COMMUNICATION SYSTEM POWERED BY AI FOR SPECIALLY ABLED

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PROPOSED SOLUTION TEMPLATE

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Project Name	Real time communication System Powered by AI for Specially Abled
Maximum Marks	2 Marks

PROBLEM STATEMENT

People get to know one another by sharing their ideas, thoughts, and experiences with those around them. There are numerous ways to accomplish this, the best of which is the gift of "Speech." Everyone can very convincingly transfer their thoughts and understand each other through speech. Communications between deaf-mute and a normal person has always been a challenging task. It is very difficult for mute people to convey their message to normal people.

Proposed Solution

This project describes the solution to overcome the problem faced by the speech and hearing impaired.

- Design and develop a system which lowers the communication gap between deaf-dumb and normal world.

- A convolution neural network is being used to develop a model that is trained on various hand movements. This model is used to create an app. This programme allows deaf and hard of hearing persons to communicate using signs that are then translated into human readable text.
- Through AI sign language is converted to normal voice and voice versa. So that it is easy to share the ideas between specially abled and ordinary human.

Novelty

- The software will assist them in establishing a two-way communication channel even with unimpaired people who have never studied sign language.
- The software, christened DnD Mate, does not only translate sign language into text and speech, but also translates speech into sign language, all in real time and as quick as the person speaks. Currently, there are no applications/software that facilitates a two-way communication channel.
- This easy-to-use innovative digital translator works with your device's in-built cameras, reads hand and facial gestures by the deaf and mute user and translates them into text and speech

Social Impact

- When AI is implemented in our day to day activities, not only will our lives get more convenient, but it will also help preserves our resources. Nothing as radical as the movie A.I. will happen in our lifetime.

- By developing lip reading algorithms, Google's DeepMind had developed an AI system that can generate a closed caption for its deaf users. To train the system, DeepMind's algorithms watched more than 5000 hours of television and identified as many as 17,500 unique words.
- Such technology can vastly help the deaf community for easier interpretation of readily available visuals content and improve the accessibility of content for the community.

Scalability of the Solution

In an era of AI adoption in industry, stark contrasts in our thinking begin to show about how we leverage computing, data, and inference. This article considers graph technologies in the context of business: enhancing human thinking and enabling data exploration, especially among teams of domain experts augmented by AI applications. Specifically, let's develop and deconstruct the notion of graph thinking.

Accuracy + Transparency = Trustworthy AI!