

## **ARTIFICIAL INTELLIGENCE**

**Real Time Communication System Powered By AI**

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### **Literature Review:**

#### **SURVEY 1:**

##### **AI Improving the Lives of Physically Disabled, HemaShree Madan**

Physical disability is one of the significant concerns that hamper individuals to access the web easily. Most of the physically disabled people cannot use technology because of the limitation of accessibility tools and techniques. It is required that the websites should be made compliant with the requirements of every citizen in a country; that's why they should cater to the needs of the differently-abled citizens as well. Features have to be introduced in the websites so that they are easy to use, readily accessible, understandable, and convenient to everyone including best practices/standards and global innovation techniques. At times, accessibility is confused with providing solutions to disabled people, but the fact is accessibility is not only for differently-abled people, but it's also there for everyone. The matter is every person needs accessibility and uses it when in need.

#### **SURVEY 2:**

**“Artificial intelligence is like artificial god for Specailly Abled”,**

**Prem Mohan Newtech**

Artificial Intelligence is not used to replace human beings rather It used to enhance their lives by helping us to do things that we are unable to do it on our own. These advancements have helped not just disabled individuals but also those who interact with them by making it easier to communicate without embarrassment or discomfort. The future is bright with the help of artificial intelligence.

#### **SURVEY 3:**

##### **“ An AI software to communicate with deaf and mute in real time”, Bhargav DV**

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. The software is based on a Deep Learning model and can work both offline and online. While in the offline mode, the deaf and mute person can communicate with you on the same device in real time; in the online mode, you can converse sitting in far off places as well, just like you talk to anyone over a video call

**SURVEY 4:**

**“voice-based device to assist deaf and mute”, Dhaya Sindhu.**

This device increases the listening experience for deaf people by converting the sign language into audio output. They've designed this device to be worn by the user on their face like sunglasses. It also has earphones attached to it which sends audio messages. The main features that have been incorporated in this device are the sensors, microcontrollers, LCD module, SD card, and audio amplifier. A sensor is needed in this device to pick up body language, especially the hand gestures. This device functions similar to a translation system, with the goal of converting sign language into audio.

**SURVEY 5:**

**“Innovative study of an AI voice based smart Device to assist deaf people in understanding and responding to their body language”, Lakshmisri surya.**

People who have hearing impairments have difficulty communicating with those who do not have hearing issues if they do not have access to a translator [1]. This is why the deaf community will benefit greatly from a technology that understands sign language especially hand gestures. Even though mobile technology is rapidly evolving and becoming incredible, there has been technological advancement and development for artificial intelligence voice-based smart devices that can assist deaf people in understanding and responding to their body language.