Real-Time Communication System Powered by AI for Specially Abled

Communication should be universal without any barriers or limitations. This paper establishes a method for providing equality, turning the disabilities of the hearing and, or speech impaired individuals to abilities, creating a base where both the disabled and the able can communicate without any barrier. Our objective is to blend deaf and dumb within society and make them able to use their personal computers more effectively and efficiently. Our idea is to create sign assistance, like many applications which is using voice assistance such as Siri on iOS and Cortana on windows. There is need to develop an application that will create an interactive platform where the sign language can be

translated to voice output and writing, and voice and writing input can also be converted to sign language. The bigger picture is creating an interactive model of communication for deaf and dumb people. Developing an app will support this vulnerable society of impaired people and enhance communication among people. The application will allow

ease in communication, improving their interaction, and hence better life. This project will be a noble cause and translating the sign language into understandable words is the goal. Microsoft Windows will come in handy to enhance the

actualization of this application. According to the World Health Organization, the world population experiencing hearing and speech challenges approximates over 466 million people globally [1,2]. With such disability, instead unequally distributed resources, these

people are vulnerable to discrimination [3]. The fact that every human being, abled or disabled, is entitled to a good life with equal opportunities calls for affirmative action [4,10]. This society requires attention from all quarters, especially on technological enhancement, to ensure the disabled get a comfortable life [5,16,20]. With the number increasing significantly, something needs to be done. The deaf and dumb are introverts, remaining engraved in their thoughtful world.

Communication, which is essential in human life, is challenging. Humans are social beings, and effective communication is necessary [6, 22,24]. The development of

technology should, therefore, serve to improve their lives as well [7]. The introduction of an application that can be used by the deaf and dumb will be a great innovation. It will not

only make life easier but will as well increase their life opportunities, including employability. The deaf and dumb category must be involved within technology on PC experience as they involved in technology on smartphones. D- talk application provides this experience for them by reading their hand movements and displays a certain fu