

ABSTRACT

Speech Impaired (tunawicara) suffers from abnormalities in the speech (articulation) of the language as well as his voice from normal speech, resulting in difficulty in communicating verbally with the environment. Therefore, we need an application that can help and facilitate their conversation in communicating. In this research, we have developed a speech recognition application that can recognize speech of tunawicara, and can translate into text form with input form of sound on smartphone. By using the Google Cloud Speech API, it allows converting audio to text, and it also user friendl to use APIs. Google Cloud Speech API integrates with Google Cloud Storage for data storage. The research use Scrum method, it can manage complex product development. Although research on speech recognition speech to text has been widely practiced, however no one has done research to translate the speech of speech into text form. And performed likelihood calculation to see the factor of tone, pronunciation, and speech speed in speech recognition. The test is done by mention the digits 1 through 10. The experimental results showed that the recognition rate for tunawicara is about 80%, while the rate recognition for normal people is 100%.

Keyword: Communication, Tunawicara, Speech Recognition, Google Cloud Speech API.