BUSINESS CASE

Proposed Project	VisuSpeak - ASL-English bidirectional translation application
Date Produced	October 18, 2023
Background	Many people with hearing loss and non-vocal individuals rely on American Sign Language (ASL) as their language of communication. However, there is frequently a significant communication gap between ASL speakers and those who speak or understand English primarily. This gap can lead to misunderstandings, limited opportunities, and exclusion for ASL speakers in various areas, such as education, employment, healthcare, and social interactions. Our proposed project will enhance accessibility for non-vocal individuals and those with hearing loss by providing a reliable tool for communicating with English-speaking individuals, thereby reducing communication barriers and fostering inclusion. This application can facilitate communication between ASL speakers and English speakers in educational settings.
Business Need/ Opportunity	Our team aims to create an innovative ASL-English bidirectional translation application for the capstone project. This application will aim to bridge the communication gap between ASL speakers and English speakers. This application will enable seamless real-time translation from ASL to English, allowing people with special accessibility needs to communicate effectively with others and gain access to essential services and information.
Options	Option 1: Build a web application which will have the capability to translate ASL to English and voice and vice versa in real-time. Option 2: Build a mobile application to compliment the web application. Option 3: Do nothing

Cost-Benefit Analysis

Option No.	Benefit	Drawback
Option 1: Build a web application which will have the capability to translate ASL to English in real-time	• Will facilitate seamless communication between ASL speaking users and English speaking users.	• Will require a team of 3 software developers as well as additional resources such as datasets to train the required model, cloud/server resources and other additional resources.
Option 2: Build a mobile application to	• Users will benefit as they will be able to	• Will require more resources and time to develop

compliment the web application	easily utilize the application from a hand-held device	
Option 3: Do nothing	• Free • No commitment	• No solution will be developed to help ASL speaking individuals to communicate freely and gain equal opportunities and services.

Recommendation

Option 1 is recommended for this project.