e-read Native

Objective:

It aims to read and extract text from a pdf , translate it to the user’s preferred language using translation api’s . Users can now read the document in the preferred language or hear the audio generated from the document using Text to speech.

Implementation:

User uploads the document to be e-read with the help of an user interface and selects the preferred language in which they would like to receive the content of the document.

This document is sent to an intermediate server which extracts the texts from the document and invokes the Azure's translation API to get the translated text .The translated text received is later sent to Azure's Text To Speech to generate audio. Server sends the translated text and audio response back to the interface where the user will be able to read the translated content or use the "Play" option to read out the content.

Applications of this idea:

- Can be used by the blind to listen to their favorite books in the language they prefer
- This can also be used in library where user can read or listen to books in preferred language
- This can be used by translators or translation agencies to translate any document within minutes.

Current limitation:

- Assuming the source language of the document iis always English
- Supports only pdf documents.
- Limited to few Indian languages

Future scope and improvements:

- Adding support to more languages
- Providing options to export the translated content and audio.
- Supporting multiple document formats.

High level overview of the implementation

A — User uploads a pdf in the portal

B — Server extracts the text and invokes translation service to get the translated text.

C — This extracted text is also sent to TTS service parallely to generate audio.

D — Translation serivice sends the translated response back to the server

E — TTS serivice sends the audio response back to the server

F — Server receives the response and sends it to the end user.