

TRANSCRIBER FOR NPTEL VIDEOS TO DIFFERENT REGIONAL LANGUAGES

Project Reference No.: 47S_BE_4707

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Abstract

Multimedia data is represented as electronic signals that can be recorded, processed, and reproduced. The detection and extraction of scene and caption text from unconstrained, educational video is an important research problem in the context of content-based retrieval. The project presents a reliable system for detecting, localizing, extracting, tracking and binarizing text from unconstrained, educational video. The proposed project aims the transcription of the text from audio/video. The videos are transcribed by converting videos to frames and further text is transcribed from the frames. The text recognition and extraction algorithm include OCR (optical character recognition) methods have been used for extracting text from images that have been applied to video frames. The project focuses on educational videos like NPTEL videos, educational and news video. Audio files are transcribed into text using NLP techniques Flask, Neural Machine Translation (NMT) for translating text into different languages i.e. the neural network is trained on vast amounts of multilingual text data. NMT learns to understand the relationships between words and phrases in different languages, allowing it to generate more accurate and contextually relevant translations. The project is beneficial for people who are hearing impaired and language barrier where they can read the text and understand. The objective is to achieve time efficiency and accuracy in transcription.