YouTube Video Text Summarization

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01 Aim

Aim

To summarize the transcriptions of YouTube videos

02 Background

Types of Text Summarization

Extractive

The information that is identical to original text is extracted, i.e ranks each sentence against all others, based on how well each line explains

Abstractive

A one-of-a-kind summary is constructed by learning the most significant points from the original text

We choose the Abstractive Summarization Method

Why summarize YouTube videos?

Longevity

Videos can be quite lengthy at times

To the point

Get crisp and condensed information

Explore more

Browse through more content within same time

03 Intended Result

Intended Result

- The program takes a YouTube video link as input
- Extracts the transcription of the video
- Applies a deep learning model on the transcription
- Provides an abstractive summary as the output

04 Implementation

Retrieval of YouTube Transcriptions

YouTube API (youtube-transcript-api)

Pass unique video identifier (vid)

Extract ‘text’ field of dictionary from output list

Merge all text values to get full transcription

Summarization of the Transcriptions

Import Transformers Pipeline

Instantiate with model & tokenizer

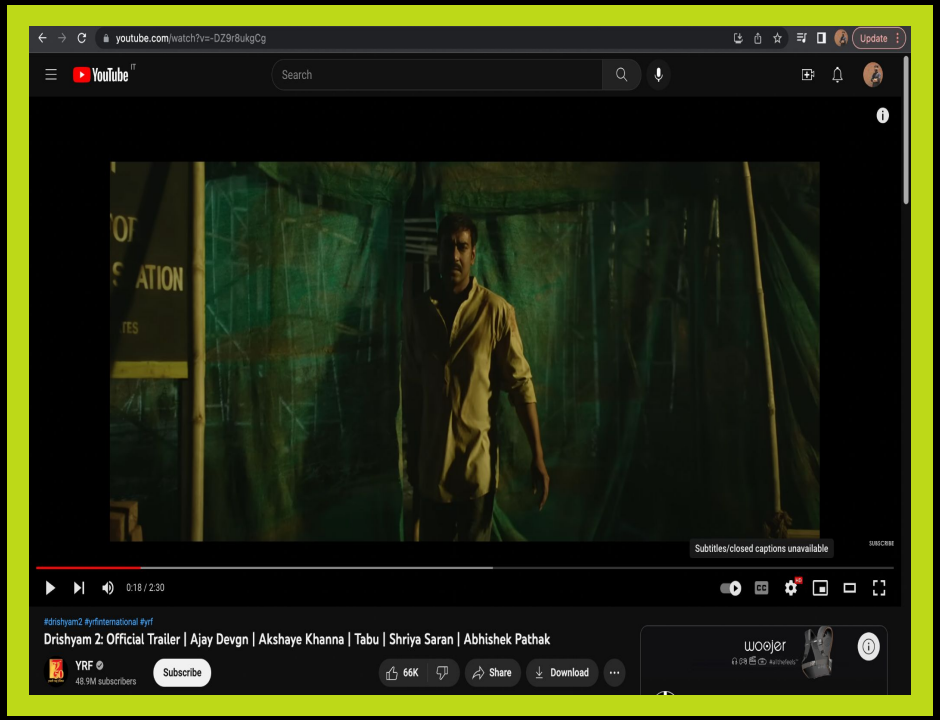
Pass the transcript as the input to model

Extract the ‘summary_text’ from output

05 Challenges

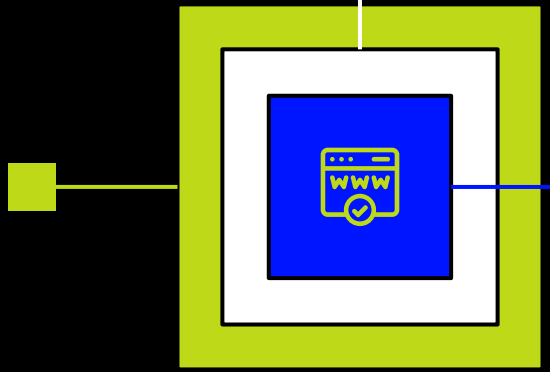
Challenges

- Language barrier (Models mostly support only English)
- Closed captions not always available



06 Sources

Sources



PyPi

To find, install and publish Python packages (eg. YouTube Transcript API)

HuggingFace

An open source machine learning library that helps build, train and deploy state of the art models

Google

To get all queries answered


Thank You!