

# 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

The image shows a presentation slide within a window. The window has a white title bar with three circular window control buttons (minimize, maximize, close) on the right. The slide background is black. A large blue rectangle is centered on the slide, containing the text "We choose the Abstractive Summarization Method" in white. Below the blue rectangle is a solid yellow horizontal bar. On the right side of the slide, there is a vertical scrollbar with a yellow highlight and triangular arrowheads at the top and bottom.

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



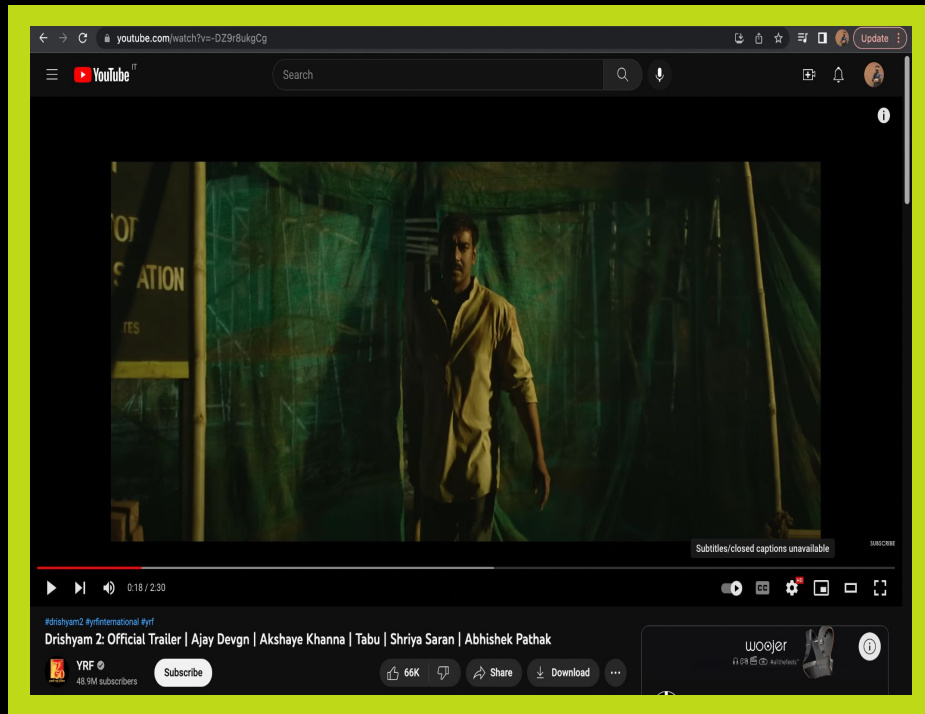
05

Challenges



# Challenges

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





06

Sources

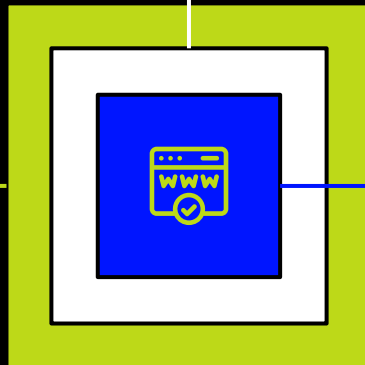




# Sources

**HuggingFace**

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



**PyPi**

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

**Google**

To get all queries answered





Thank You!

