Video Summarizer

Summarizing YouTube videos with Claude, in order to find out what the video is about, when topics are discussed in the video, and to check whether it's clickbait or not.

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Demo: https://explanationsummaryapi.jillcater.repl.co/getsummary.html
LabLab: https://lablab.ai/event/anthropic-ai-hackathon/team-jill
GitHub: https://github.com/jillcater
GitHub Repository: https://github.com/jillcater/explanationsummaryapi

Introduction

There are a lot of videos on YouTube that cover a lot of different topics. Just by looking at the title and description of a video, it's not always clear whether a video is actually going to cover a topic that a user is interested in. And it's not going to be clear at what time topics will first be discussed in a video so that a user may jump to that section of a video.

It's also not always clear whether a video is going to be clickbait or not. Clickbait is a way to entice a viewer to click on a video in order to get more views, without actually covering what the title of the video was actually supposed to be about.

A way was needed to check what a YouTube video covers, and at what times topics are first brought up, as well as to check if the video is clickbait or not.

This project has used Anthropic's Claude AI to do that, without needing the user to click on the video itself and go to it.

Other details

Demographic: Anyone that watches YouTube videos and wants to quickly check to see if something in the video is what they're interested in or not. As well as to check for clickbait.

This could possibly be monetized by providing this for free for a limited number of uses per month and then charging after a certain number of uses.

How it works

YouTube provides transcripts for videos, these can be auto-generated by YouTube but they are already there. The transcripts also provide timestamps. There was no need to use speech-to-text on the videos themselves because YouTube already does this for their platform. There is also no need to click on the video itself by the user, the user just needs the link to the YouTube video in order to have this summarizing web application extract the transcript and feed it to Claude.

Transcripts were pulled for the videos, as well as the title and description. These were then fed to the Claude API using the v1.3 model.

A prompt was used to summarize the transcript and to state when topics were first brought up and this worked surprisingly well.

The title and description are also given as a prompt to have Claude check to see whether a video may be clickbait or not by checking to see if what it summarized matches the title and description.

A message to state this is added at the end of the summary. Because this is a summary Claude was informed not to ask questions at the end.

Transcripts can be quite large depending on the video size but Claude is able to process them.

Using it

A page served by the API can be used to access it (a demo for this is located at https://explanationsummaryapi.jillcater.repl.co/getsummary.html this sends the data to the API which sends it on to Claude).

For the following example the YouTube video https://www.youtube.com/watch?v=FFmiHEMYd50 was used. This video is by Wall Street Journal and it titled "Will Apple's Headset Be as Disruptive as the iPod, iPhone or Apple Watch? | WSJ"

Video Summarizer

YouTube URL:

[   ]

[Summarize video]

Using it (continued)

When a YouTube URL is entered text is displayed to the user to state that it is loading and that it may take some time depending on the length of the video. From testing this typically takes around 10-20 seconds for a normal length YouTube video.

Note: this currently sends and receives the prompt to Claude using completion and does not use streaming for the text, but this could be added in a future iteration. One problem though with this is that if a YouTube video does not have a transcript this won't work but most videos seem to have at least an auto-generated transcript now.

Summarize video

Loading...
(Please wait, this can take some time to summarize depending on the length of the video).

YouTube URL:

https://www.youtube.com/watch?v=FFmiHEMYd50

Summarize video

Summary: Apple is expected to enter the mixed reality headset market for the first time in eight years with a new AR/VR headset. The market is currently small at 8.8 million shipments in 2022, similar to the iPod and smartwatch markets before Apple entered them. However, after Apple entered the iPod and Apple Watch markets, they ballooned by up to 10 times in size within 4-5 years.

Apple's large install base of over 2 billion iPhone and other product owners allows them to market new devices to existing customers. Analyst Gene Munster predicts the mixed reality headset market will take longer to grow than other Apple products, but will end up much larger, though not as big as the iPhone market. At 2:21, Munster says "I think the balloon will take more time to inflate than a typical Apple product, but ultimately be a lot bigger than a typical Apple product."

The initial Apple headset is expected to cost $3,000 and target software developers, different from Apple's usual focus on consumers. The mixed reality headset market could go two ways: it could become cheaper and more appealing like the Apple Watch, giving people a reason to use it regularly, as mentioned at 4:50. Or, it could struggle to find a strong use case and customer base.

Video title and description match the contents of what the video is actually about.

Summary by Claude (with Timestamps such as 2:21) for topics

States whether it may be clickbait or not at the end of the summary

Include the video at the bottom to watch it

Conclusion

Hopefully this will help to save people time in searching for the content they actually want, without needing to watch a full YouTube video or to even go to the video itself, just needing the URL for the video.

It will also hopefully help combat clickbait videos and not waste people's time.

Claude by Anthropic is amazing and works well in summarizing videos in a succinct but descriptive manner.

Thank you very much for your time.