Automated Sentiment Analysis of Web Multimedia

User Manual

A Product by team of BE Engineering Students:

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Contents

Product Installation

Installing the Pre-requisites:

1. In order to install pre-requisites, make sure you have an active internet connection.
2. Python Installation:
    a. Navigate to <project_dir>/softs.
    b. Double-click on python-366.exe to start python installation.
    c. Select “For all users” and “Add PYTHON_PATH” checkboxes.
    d. Click install.
    e. Restart the computer.
3. Installing other pre-requisites:
    a. Open an elevated command prompt.
    b. Execute: “pip install youtube-dl nltk pydub pocketsphinx pickle-python webvtt-py”
    c. This will take some time.
    d. Download and setup environment path for ffmpeg from its official site.

Installing the Product:

1. Copy <project_dir>/project folder into your D: drive and remember the path.
2. Restart the computer.

Installing the Chrome Extension:

1. Open Google Chrome.
2. Click on “Overflow Menu (:) -> More Tools -> Extensions”.
3. Click on “Load Unpacked”.
4. Navigate to <project_dir>/extension folder and click on Select.
5. Thus, now the system is up and ready to go.

Getting Started

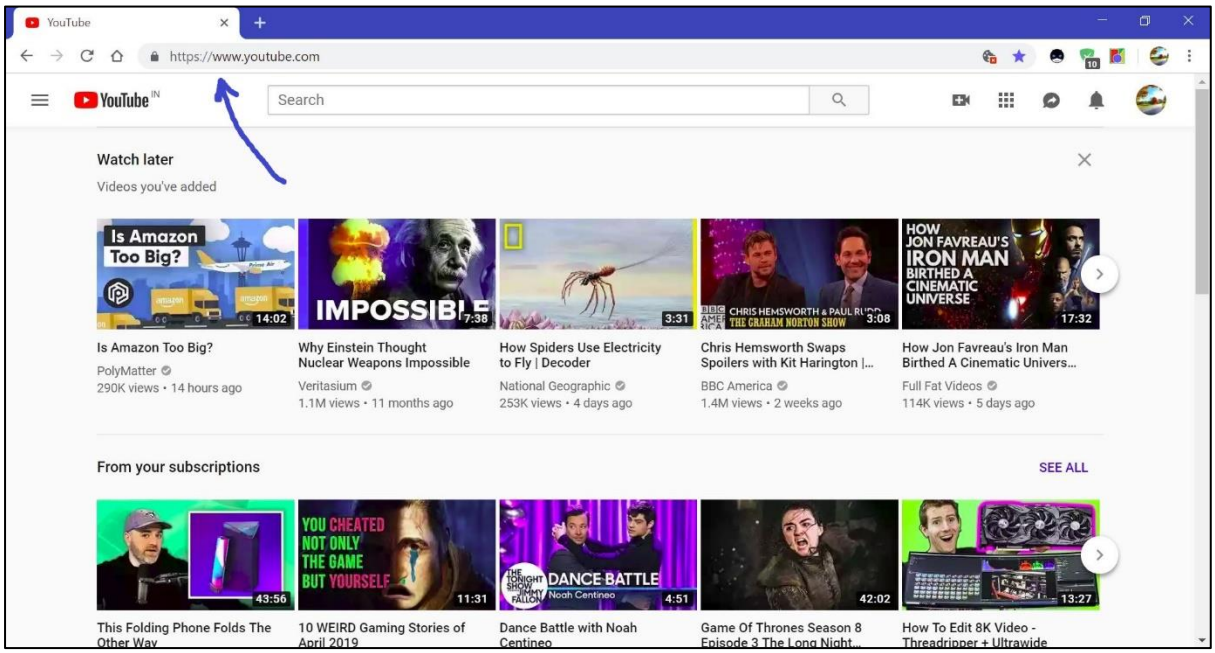
The popularization of multimedia content on the Web has raised the need to automatically analyse and retrieve it. Manually labelling these data is extremely expensive and unfeasible, therefore automatic methods for large-scale identification of sentiments are needed.

For example, podcast search and retrieval benefits from the use of sentiments related to the content, but most of the multimedia being shared are published without any relevant information to identify them. Moreover, due to this users are poorly aware about contents of multimedia. This results in people uploading content solely for monetisation purpose and click-baits.

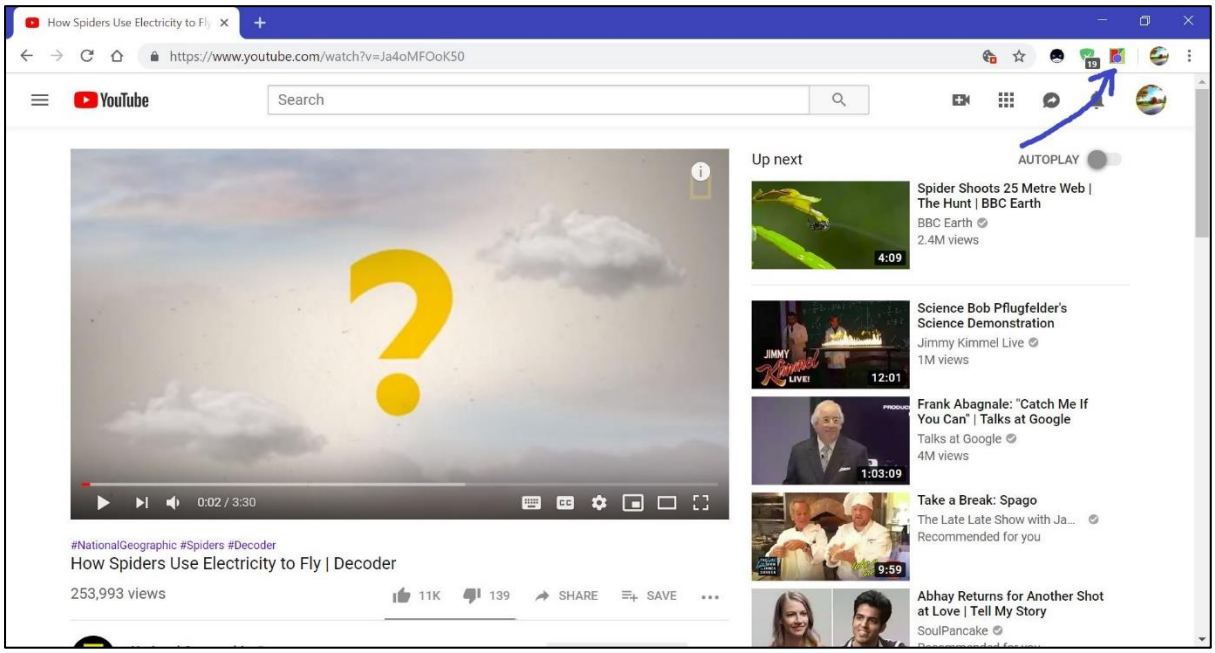
Hence for this purpose, we decided to automate the content identification using Audio Processing and Machine Learning. Using machine learning, system will label the content with opinion of the speaker as output. It will how various sentiments along with their intensity. Main application of this system is Google Podcasts and YouTube Videos. The product is implemented in form of a web browser extension. The system will display relevant sentiments helping the users from click-baits.

Using the Product

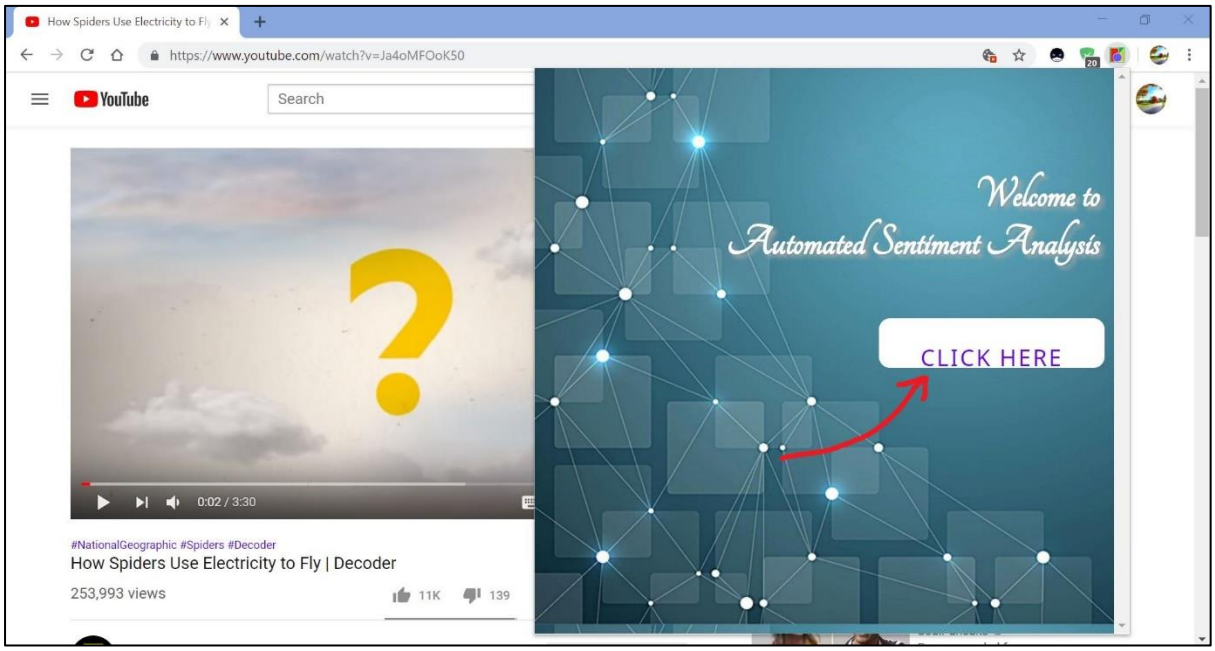
1. Visit any web page with web-multimedia.



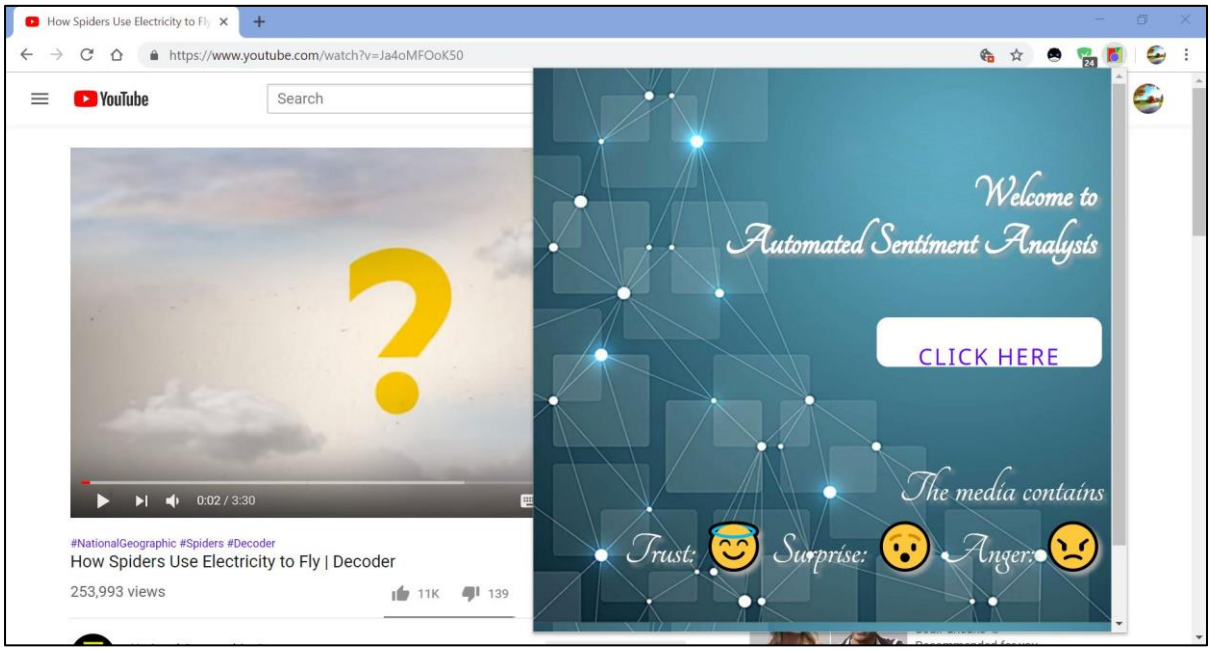
2. The interface of program is very simple. Click on the Extension Icon ( ).



3. Click on “start” to start analysing the media.



4. The results will be displayed within seconds.



Help

Troubleshooting common errors:

1. The program is struck at “Fetching”.
    a. Check if you have active internet connection.
    b. This may happen if you have unreliable internet connection.
2. It shows error message “Pre-requisites failed to initialised”.
    a. This means all the required pre-requisites were not found.
    b. Check if everything was installed correctly. Some pre-requisites require you to setup environment variables (PATH).
    c. Try re-installing pre-requisites.
3. It shows error message “Required file/folder not found”.
    a. This error arises if the program is unable to access its own files and folders.
    b. Usually this is because the program was installed in C:\ drive and/or
    c. Windows restriction of Administrator Privileges.
    d. Try disabling User Account Control (UAC).
4. Error message “Incorrect URL” or “Media not found”.
    a. This means that the web page you are currently on doesn’t have valid web-multimedia.
    b. This happens due to the fact that some websites don’t allow users to download media.
    c. Try visiting another web page.
5. “PermissionError: File is not Accessible //”.
    a. This happens if there are two or more instances of program running simultaneously.
    b. Exit all the instances except one.
    c. Re-try by clicking on submit button.
6. “Object or Byte Not found”.
    a. This error is because the program cannot find python executable.
    b. Verify that python path is present in environment variable.
    c. Try re-installing python.
7. It shows “The media contains” and nothing is displayed below.
    a. This is because the program is unable to download multimedia file. Wait for some time.
    b. This may arise if you have slow internet connection or if some firewall or proxy is present.
    c. Try changing your internet settings.

FAQs

Q. What platforms does your project run on?

A. The project is platform independent. However, the extension is currently built only for Google Chrome. Hence, Linux and Windows are supported.

Q. Is it open-sourced?

A. No. Currently we're under the process of filing copyright. Once it gets completed, we may license it under Creative Commons GPL License (CC BY-SA 4.0).

Q. How fast it can go? Or what are the factors affecting performance?

A. Currently, the program runs locally. Although, we have made sure that it should run quickly on any hardware. We recommend computer with core-i3 2nd Gen processor or greater. The major performance hit is internet connectivity. About 90% of time taken is in fetching media from URL and remaining 10% is required for generating results.

Q. Do you collect any of my personal data?

A. No, We'll never collect any of your data. We don't store your search history. We therefore have nothing to sell to advertisers that track you across the Internet.

Q. Awesome! How can I contribute to project?

A. Currently we're looking for translators who can help us translate this project into other languages. Also, if you have some idea or new feature which you would like that should be incorporated then feel free to contact us at devashish.katoriya@gmail.com.

Contact Us

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We would like to thank our project guide Prof. A. V. Kolapkar for his immense support and valuable guidance.

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