

YouTube

Table of Contents

[1 About the Platform](#)

[2 Available Data](#)

[3 Restrictions and Limitations](#)

[4 Available Metadata](#)

[5 Relevant Application Programming Interface \(API\)](#)

[6 Searching by Geolocation](#)

[7 Filtered Content](#)

[8 References](#)

About the Platform:



The YouTube platform (see: <https://www.youtube.com/>) is a subsidiary of Google, primarily offering content in the form of videos. At the time of the YouTube's creation in February of 2005, the platform was created with the intention of allowing individuals to create and share video content of anything they wanted. For many users, YouTube is a medium for watching content from one's favorite celebrities or influencers; learning basic life hacks through "how-to" videos; watching personal blogs, music videos, or news coverage; and a plethora of other things. Unlike many social media platforms that opt to stick in a particular arena of content, YouTube does not fit this mold and exposes its users to all kinds of topics. This is likely why the platform has grown the large user base that it has, landing at 2.3 billion monthly users as of 2021 (See here:

<https://www.businessofapps.com/data/youtube-statistics/>). To interact on the platform, users are required to register a YouTube channel. YouTube channels enable users to create a sort of brand on the platform, where channels tend to cater to specific types of content for specific types of users. Generally, the YouTube channels that have the highest level of influence are the channels with many subscribers (i.e., people that follow the channel and are notified of the channel's postings). To further its influence, YouTube has even begun to offer a subscription TV service called YouTube TV. This is a shift from the original kind of content the platform has always provided, as YouTube TV now offers long-form video content such as movies and television shows.

1) What data is available from this platform?

YouTube videos are the main source of content for the platform. These videos can be one of many formats (e.g., personal videos, educational videos, music videos, TV shows, movies, movie trailers, and documentary films).

Multiple metadata resources are also available and discussed in further detail below (e.g., subscriptions to YouTube channels, comments left on videos, the number of likes and dislikes on a given video, etc.).

2) What are the restrictions/limitations of the data?

A limitation of this data is that it is harder to parse through video content. This means that other metadata will be heavily relied on. Other limitations might include the strict copyright policy that YouTube operates under. YouTube's Safety and Copyright policies can be found here: <https://support.google.com/youtube/topic/9223153>.

However, additional context for videos can be obtained through things like closed captions (CC) and comments.

As far as restrictions are concerned, YouTube operates under the policy that anyone creating and uploading content to the platform must create videos in such a way that there is no confusion as to who created the video. A line from their Privacy Guidelines emphasizes this:

"To be considered uniquely identifiable, there must be enough information in the video that allows others to recognize you. Please note that just because you can identify yourself within the video, it does not mean you are uniquely identifiable to others. A first name without additional context or a fleeting image, for example, would not likely qualify as uniquely identifiable."

Additionally, their Privacy Policy requires that minors seek appropriate permission from a parent or guardian before using the platform. The general Privacy Policy is here <https://policies.google.com/privacy?hl=en> and the YouTube Kids Privacy Notice is here <https://kids.youtube.com/t/privacynotice>.

This source is also helpful for understanding the major components of the Privacy Policy: <https://www.mic.com/articles/163045/you-tube-privacy-policy-everything-you-need-to-know#:~:text=The%20general%20gist%20of%20YouTube's,confuse%20them%20for%20anyone%20else.>

3) What variables are available? What meta-data (i.e., the data of the data) is included? For example, what information is available about user profiles (e.g., username, demographic data, number of followers/friends)? What information is linked to the content/post/blog/tweet (e.g., timestamps, re-tweets, location, device/platform that content was shared from, number of likes)?

According to the official documentation for YouTube Data API v3, metadata such as the following is available:

- Activities: actions that a particular channel or YouTube user has taken (e.g., rating videos, sharing videos, marking videos as favorites, and uploading videos)
- Captions: captions left on YouTube videos
- ChannelBanners: URLs used to set an image as a YouTube channel's banner image
- ChannelSections: groupings of videos that a channel has featured (e.g., sections dedicated to a user's most recent uploads or most popular uploads)
- Channels: the YouTube accounts through which videos are posted
- CommentThreads: top-level comments on YouTube videos
- Comments: secondary comments on YouTube videos left on YouTube videos (i.e., the children comments for top-level comments)
- VideoAbuseReportReasons: reasons for which a video may have been flagged for containing abusive content
- ...and many more, all of which are described in detail here: <https://developers.google.com/youtube/v3/docs/?apix=true>

4) Is there an Application Programming Interface (API) available for this platform? If yes, please provide the link for the platform.

Yes, as mentioned prior, the API of relevance is YouTube Data API v3.

This YouTube API allows calls in the format of representational state transfer (REST) or extensible markup language (XML).

The API's general documentation can be found here: [https://developers.google.com/youtube/v3/docs/?apix=true.](https://developers.google.com/youtube/v3/docs/?apix=true)

5) Does the API provide a way to limit the search based on geolocation?

Yes, YouTube Data API v3 provides geolocation searches via the `location` and `locationRadius` parameters. See below:

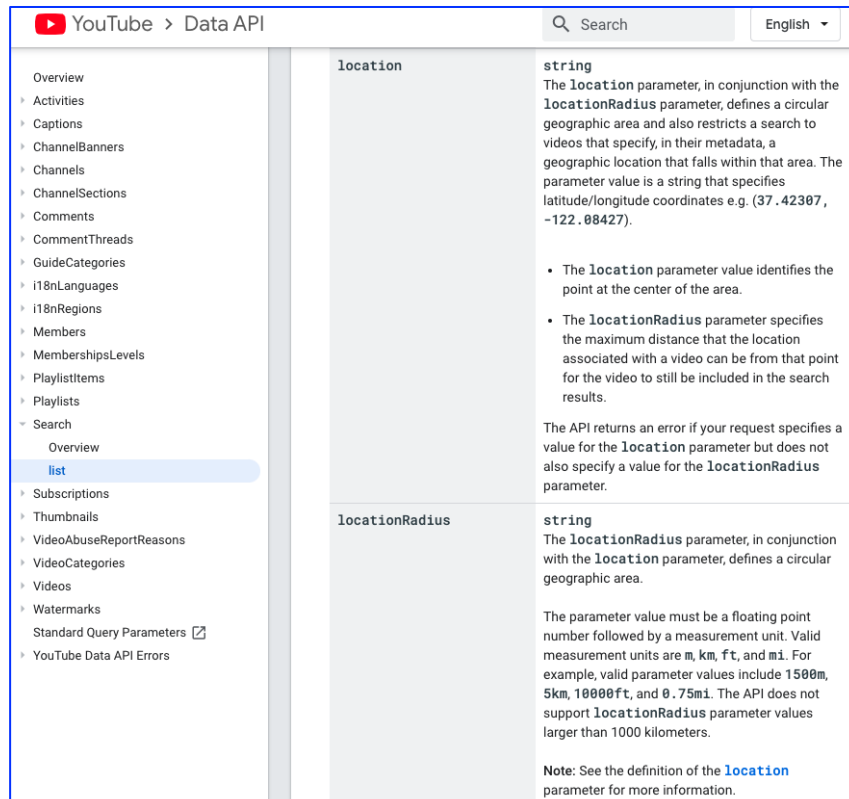


Figure 1. A reference to YouTube’s documentation on the “Search” method under YouTube Data API v3.

YouTube Analytics API offers methods for geolocation searches as well. Results can be filtered by country.

*Note: The results from this API are aggregated (i.e., the information returned corresponds to groupings of content or videos rather than an individual video).

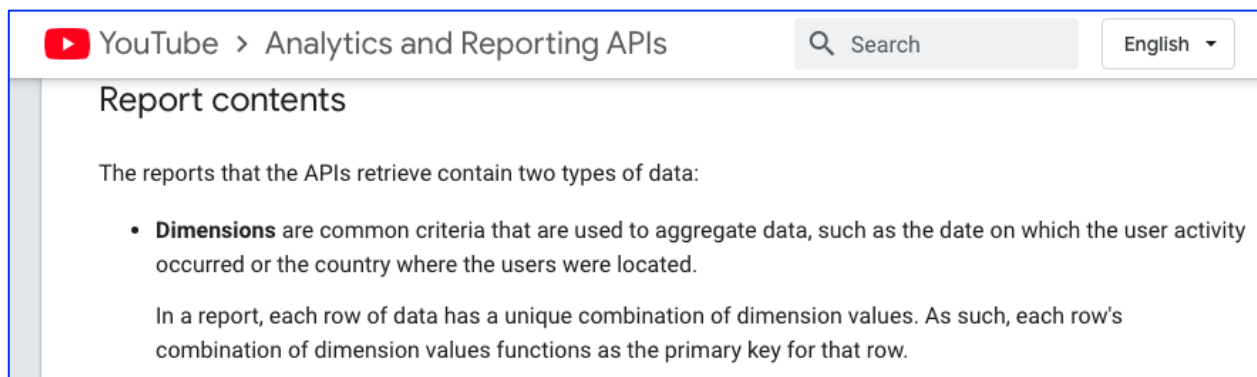


Figure 2. A reference to YouTube’s documentation on the Analytics and Reporting APIs.

YouTube Data API v3 is the more granular approach, as it returns geolocation results based on individual videos.

6) Does the platform use any kind of filters to remove the content on their sites?

YouTube attempts to filter—or moderate—potentially harmful content and misinformation related to COVID-19 through two different approaches:

- Providing links to reputable sources like the Center for Disease Control and Prevention (CDC) and the World Health Organization (WHO)
- Using a two-step process that utilizes machine learning algorithms followed by review conducted by human moderators ([see Singh et. al](#)).

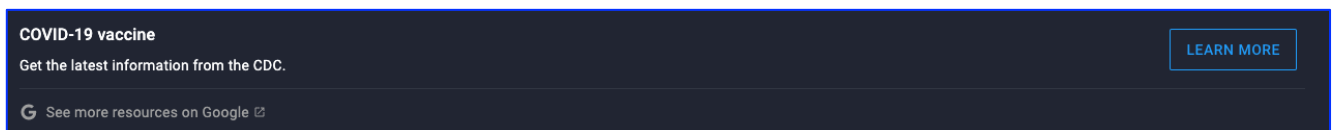


Figure 3. Approach #1 for combating COVID-19 misinformation on the YouTube platform: banners linking to COVID-19 information provided by the CDC on the page of YouTube videos whose content is related to COVID-19. These banners read, “Get the latest information from the CDC.”

References

- Baral, S. (2016, December 22). *YouTube Privacy Policy: Everything you need to know*. Mic. <https://www.mic.com/articles/163045/you-tube-privacy-policy-everything-you-need-to-know#:~:text=The%20general%20gist%20of%20YouTube's,confuse%20them%20for%20anyone%20else>.
- Google. (2021, May 12). *API Reference | YouTube Data API | Google Developers*. Google. <https://developers.google.com/youtube/v3/docs/?apix=true>.
- Google. (n.d.). *Policy, safety, and copyright - YouTube Help*. Google. <https://support.google.com/youtube/topic/9223153>.
- Google. (n.d.). *Privacy Policy – Privacy & Terms*. Google. <https://policies.google.com/privacy?hl=en>.
- Iqbal, M. (2021, May 14). *YouTube Revenue and Usage Statistics (2021)*. Business of Apps. <https://www.businessofapps.com/data/youtube-statistics/>.
- Singh, S., & Bagchi, K. "K. J. (2020). (rep.). *How Internet Platforms Are Combating Disinformation and Misinformation in the Age of COVID-19* (pp. 2–42). New America.
- YouTube. (2019, August 7). *YouTube Kids Privacy Notice*. <https://kids.youtube.com/t/privacynotice>.