

## The Changes of YouTube Over Time: An Investigation into View Count, Video Length and Likes from 2013 to 2023

We decided to look at YouTube data over time to see if there were changes in video length and viewership over the period of a decade (2013-2023). One main question we wanted to answer was whether the creation of short-length video platforms such as Vine (2013) and TikTok (2016) had an effect on the average video length posted on YouTube. Another topic of interest was if the views or likes of videos are correlated to the length of the videos on YouTube for the given timeframe. Our hypothesis is that the length of videos submitted to YouTube would gradually decrease throughout the timeframe. We also hypothesized that view count would increase as video length decreased.

Assessing this data we aimed to draw important conclusions that could provide insights to organizations and companies as to what lengths of videos are more impactful in gaining viewership. Tracking trends in video length over time could assist content creators in choosing videos that could have more of an impact on viewership and help them monetize videos. Our data can be utilized by marketing-focused organizations to refine their strategies, enabling them to better show their efforts towards customers. This could potentially lead to increased profits through targeted marketing, targeting to both longer and shorter video content preferences.

Our results indicated that views and likes do have a positive relationship. As well, views to length and likes to length do have a slightly inverse relationship but since  $r^2$  values are significantly lower than 1 we can't say that our data is significant enough to make strong conclusions.