Case Study 2: Final Report
DSDA 300: Senior Sem Capstone

YouTube Analytics Case Study
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Abstract
This case study examines the factors influencing the performance of a YouTube channel managed by Nicole Martin Consulting Group. Using analytical data from YouTube Studio over the past two years, the goal was to create a client report that could be presented to investors to highlight growth and potential for funding. By analyzing changes and trends in channel performance from January to April 2020 and 2021—during which 13 episodes were posted each year—we identified key factors contributing to the channel's successes and challenges. Our findings reveal both positive and negative shifts in metrics, leading to actionable suggestions and recommendations for the channel's growth and expansion.

I.   Introduction

Nicole Martin introduced this case study as a project for our class to assist you as a client with information gathered through YouTube analysis and data collected from your channel. The report we created for your partner ensures that you, as the client, are as prepared as possible with recommendations on improving your channel's success while also pinpointing preexisting successes within your channel. By communicating these successes, we hope to increase the likelihood of continued investment by telling a story of growth, loyalty, and resonance. Within our report to the partner, we spoke about an increase in views, a growth in net subscriber amounts, average views per viewer, useability of impressions such as browse features, YouTube search, notifications, and end screens. Through these impression metrics, we were able to notice a decrease in unique viewers throughout the off-season and would recommend an increase in out-of-season postings. Our focus for this case study was to determine a way of resolving this decrease in viewership to continue to grow the success of this channel leading to greater investment capabilities.

II.   Methodology

The data for this analysis came from YouTube Studio, covering January to April for both 2020 and 2021. We looked at key metrics like impressions, views, watch time, average view duration, click-through rates (CTR), and audience demographics. The data was provided in a well-formatted Excel sheet, which made our analysis easier since no data

cleaning was necessary. We greatly appreciate Nicole Martin for providing such well-organized data, which even included exploratory measures to help us dive deeper into the analysis. We used both descriptive and exploratory data analysis to find trends, year-over-year changes, and any differences from YouTube's standard benchmarks. We also used visualizations to make the key findings easy to understand, focusing on the story of growth or opportunities in each data layer.

III.   Results and Analysis

1. **Performance Snapshot**
   - Total views grew by 1.5% compared to the previous year, showing a minor yet consistent increase in audience reach.
   - Impressions rose by 26%, indicating that content was exposed to a broader audience, primarily driven by shifts in YouTube's algorithm favoring browse features.
   - Average view duration declined by 0:52 minutes, highlighting a drop in audience engagement per session.
   - Unique viewers decreased significantly, which is largely attributed to the channel only posting content from January to April and then remaining inactive for the next eight months. This lack of consistent content likely caused viewers to lose interest or forget about the channel during its inactive period.
2. **Traffic Insights**
   - Browse features accounted for a significant increase in impressions, contributing to a higher click-through rate (+0.44%). This suggests improvements in thumbnail design and content targeting.
   - Traffic from external sources such as Google Search grew significantly, while suggested videos remained a steady source of views.
   - Notifications were responsible for a 150% increase in views, indicating the importance of engaging subscribers through alerts.
3. **Audience Demographics**
   - Male viewers dominated the audience at 73%, compared to YouTube's global average of 53.9% male viewers. However, female viewers displayed stronger engagement, with a smaller decline in average view duration compared to male viewers.
   - Returning viewers contributed significantly to watch time, demonstrating loyalty among a portion of the audience.
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Figure 1: Our Team's Client Report
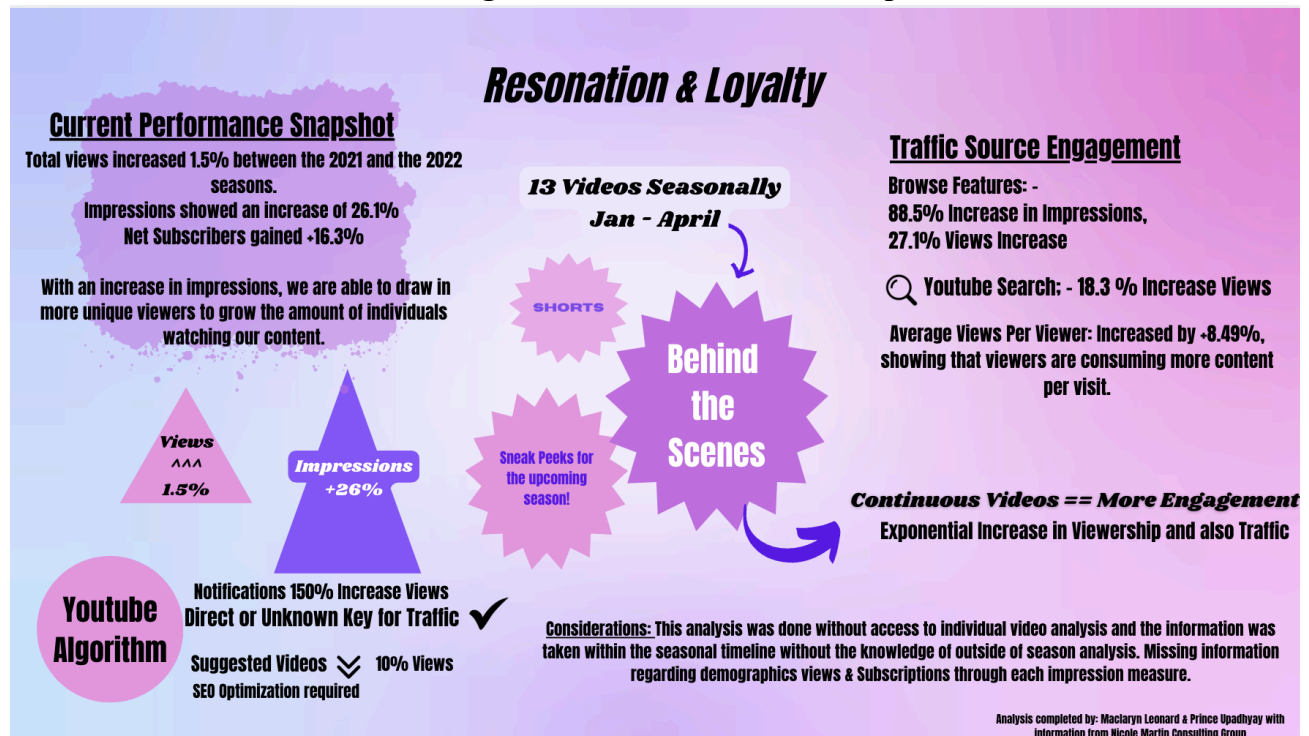
IV. Conclusions and Recommendations

Through our previous analysis, we have concluded that due to a decrease in unique viewership outside of the seasonal postings, it would be beneficial to increase the postings released throughout the remainder of the working year leading up to the upcoming season. Postings such as behind-the-scenes, shorts, and sneak peeks for the upcoming season will lead to a growth in viewership due to this increase in impressions.

V. Future Work

In the future, we would like to analyze the video information on a video-by-video basis throughout the season to understand any decreases in viewership within a season since this was information that was not available to us within this specific study as well as analyze the impact on the continued postings between seasons if they were implemented into the channels content per our recommendation.