Below is a methodology description of a Google-commissioned Nielsen study. This was a three-part study which focused on whether or not engagement with a TV show’s content on YouTube was related to tuning into the program on TV.

**Part 1: Exploring a Relationship Between YouTube Engagement and Reach on TV through Multivariate Regression Analysis**

*Nielsen conducted multivariate regression models to explore this relationship by utilizing YouTube census activity (data provided by YouTube) and TV currency viewership (Nielsen data)*


Programs: 30 TV programs across mainly comedy, drama, and talk show genres with engagement on YouTube

Source: Nielsen National People Meter Panel, YouTube data

**CONTROL VARIABLES**

- Seasonality of TV usage as measured by currency viewership by week (Weekly HUT/PUT Viewing Source, Live+7)
  - TV Show Promotion Ad units and GRPs as measured by Nielsen Ad Intel (Weekly, National TV)
  - TV Program Engagement as measured by TV Brand Effect (Quarterly)
  - Prior Month TV Program Reach and Time Spent (Live+7)

**INDEPENDENT VARIABLES**

*Weekly Data (provided by YouTube) for TV Program Content on YouTube*

- Views
- Seconds of content uploaded
- Number of videos published
- Channel subscribers

**DEPENDENT VARIABLE MODELED**

*TV, Live+7, Weekly*

- **Reach**: Total number of people who tuned into a program for at least one minute
Part 2: Assessing the Difference in Tune-in Rate for those who Engaged with TV content on YouTube vs. those who did not

*Nielsen Cross Platforms Homes Panel used to analyze:*

The percentage of panelists who watched TV related content on YouTube and tuned into the show on TV compared to the percentage of panelists who did not engage in TV-related content on YT and tuned into the show.


Programs: Subset of 12 TV programs across mainly comedy, drama, and talk show genres with engagement on YouTube

Source: Nielsen Cross-Platform Homes Panel

TV: Live+7, 1 minute qualifier

YouTube: Load TV-related YouTube URL

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Part 3: Assessing the Lift in Tune-in Rate for those who Engaged with TV Content on YouTube vs. those who did not, by controlling for Demos and prior Viewing

*An ANCOVA analysis run on Nielsen Cross Platforms Homes Panel data to determine if people who engaged with a TV show on YouTube had a meaningful difference in Tune-in compared to a matched sample of those who did not.*

Program: TV talk show program with engagement on YouTube

Source: Nielsen Cross-Platform Homes Panel

Unexposed: No YouTube in pre-period AND tuned into TV in following TV season

Exposed: Yes YouTube in pre-period AND tuned into TV in following TV season

TV: Live+7, 1 minute qualifier

YouTube: TV-related YouTube URL visitation

Matching Variables between test and control group:

• Age
• Gender
• Education
• Household size
• Income
• Race
• Pre-season viewing (August 2015)