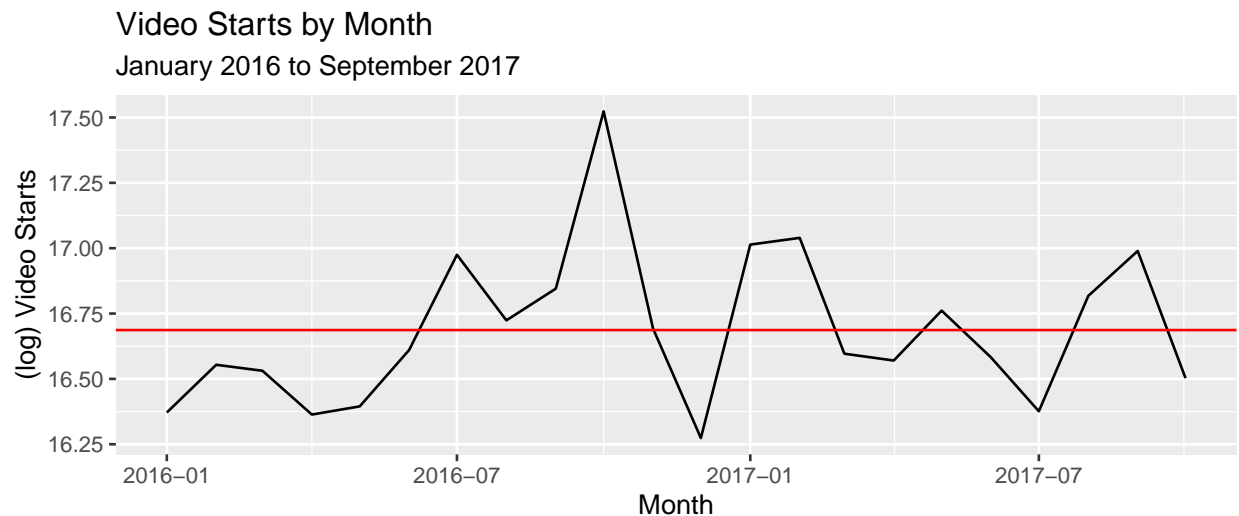


Washington Post Video Analysis

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7/9/2020

Video Starts for the Washington Post decreased from September 2016 to 2017. Using their data tables, I investigated why and propose some solutions



Overall, video starts decreased from September 2017 to October 2017 by 38.5%, as shown in the graph below. WaPo App starts decreased only 3% while wapo.com decreased 40%. We can see the mean Video Starts from January 2016 to September 2017 as the red line. Video Starts fluctuates constantly, so we should not be too alarmed by the drop. But let's dig into what we're seeing and find some drivers and solutions.

Why did Video Starts drop? How can we fix it?

Drivers

1. Top two videos for the month of October were released at the end of the month.
 - This gives less time in the month of October for videos to be started.
 - Conversely, the top six videos in September were released in the first third of the month
 - This is not something to fix, however, as we are at the whim of current events.
2. Conversions from Google and Facebook referrals dropped dramatically.

- Google dropped from 9.9% conversion on referrals to 5.0%
 - Facebook dropped from 7.0% to 5.5%
 - Both platforms served less referrals from September to October
 - Overall, conversion from Direct, Social, and Search decreased significantly
3. Video starts from both 'Article Pages' and 'Others' spiked abnormally in September before returning to normal in October.
 - Video Starts are significantly impacted by starts from Article Pages and 'Others'
 - WashingtonPost_TV is an important driver of video starts and decreased significantly from September to October
 - Local as well is an important driver and decreased significantly, losing over 3m video starts from September to October. September 2017 was Hurricane Harvey, though, and probably the cause of September's spike in 'Local' video starts

Recommendations

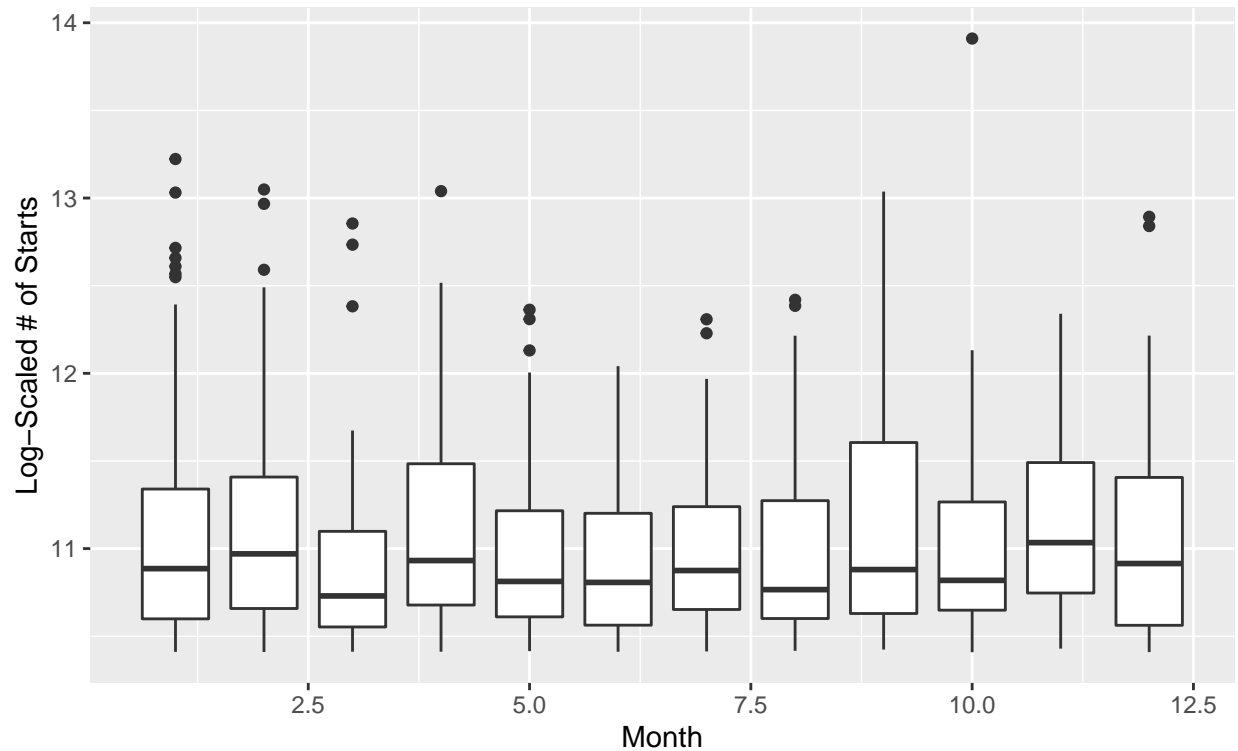
1. PostTV, Politics, Lifestyle have the highest correlation to overall VideoStarts. Collaborate with the video staff to emphasize these videos
2. Use SEO to increase quantity and quality of Google referrals
3. Hosting videos on MSN, AOL, other 3rd party sites might increase overall video starts, but it detracts overall traffic from the website because people don't continue browsing. Using cost analysis, determine the worth of hosting videos on 3rd party sites.

Appendix

Top 1000 Videos

Top 1000 Videos

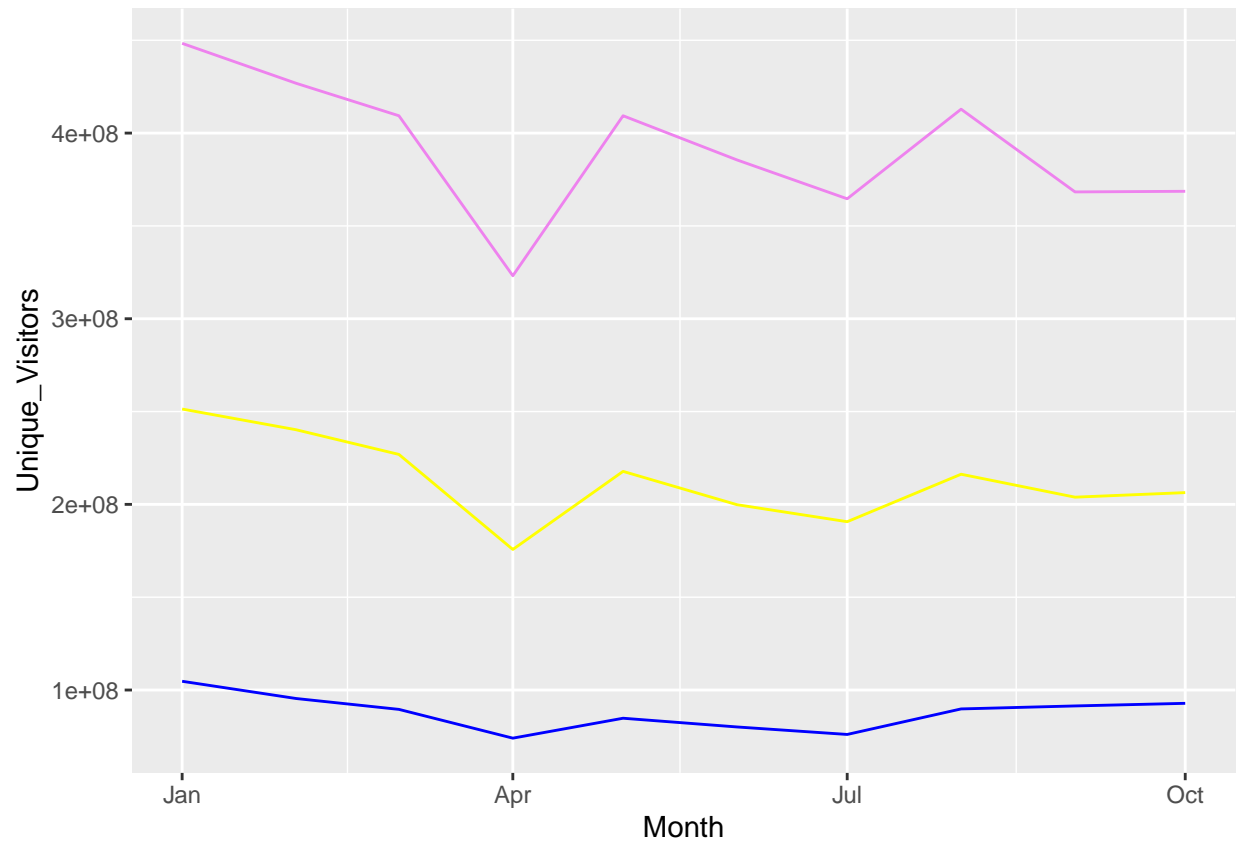
Release Month & Number of Starts



	Month	VideosReleased
1	1	150
2	2	169
3	3	93
4	4	84
5	5	101
6	6	63
7	7	40
8	8	77
9	9	84
10	10	65
11	11	33
12	12	34

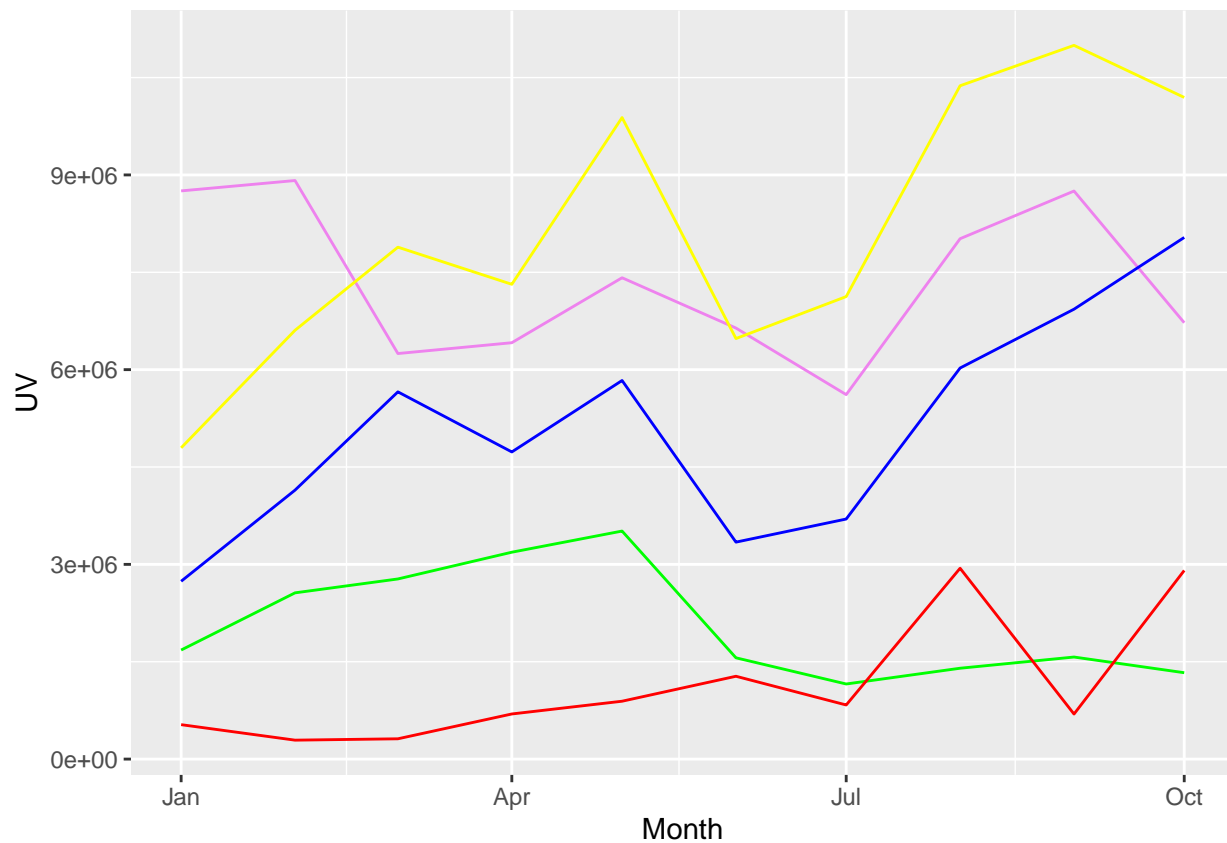
Here we have the top 1000 videos shown by release month on the x-axis and $\log(\text{starts})$ on the y. We used $\log(\text{starts})$ to make it easier to read. Top videos decreases by month, which makes sense as videos released later in the year inherently are likely to have less starts because of less time remaining until EOY. The top two videos released in October were released towards the end of the month, on the 20th and 28th respectively. This reduces the time people could watch, and thereby the mean starts for the month of October compared to September. Conversely, the top six videos from September were released in the first third of the month.

Traffic



Every base metric shows higher traffic in October than September, so traffic should not be the issue.

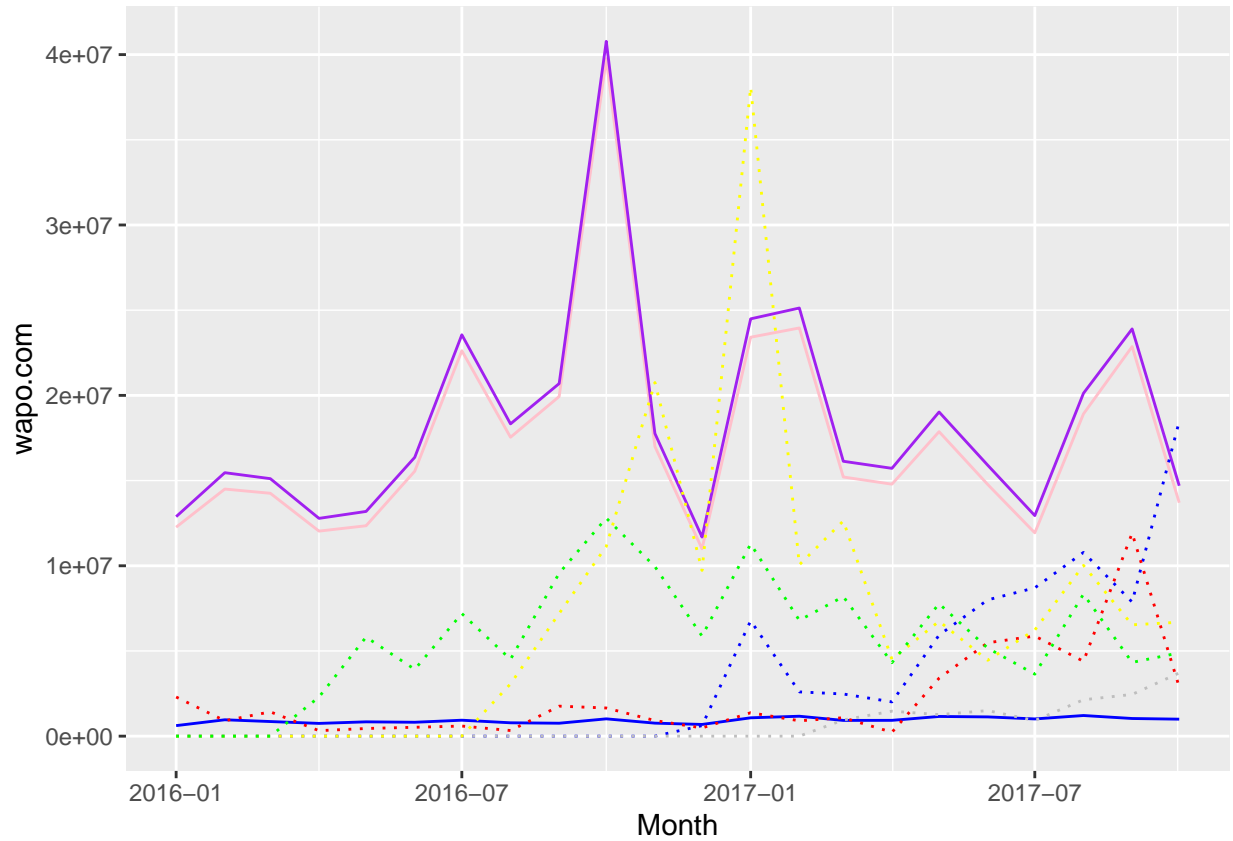
Video_PreRollAds



- Unique Visitors decreased 23.2%
- Ad Starts decreased 7.3%
- Ad Skipped decreased 15.4%
- Ad Complete increased 16.0%
- Starts with no pre-roll increased 318.8%

Less unique visitors, but ad completion increased by 15.8% as well as starts w/o pre-roll. So, video ads are not causing the problem.

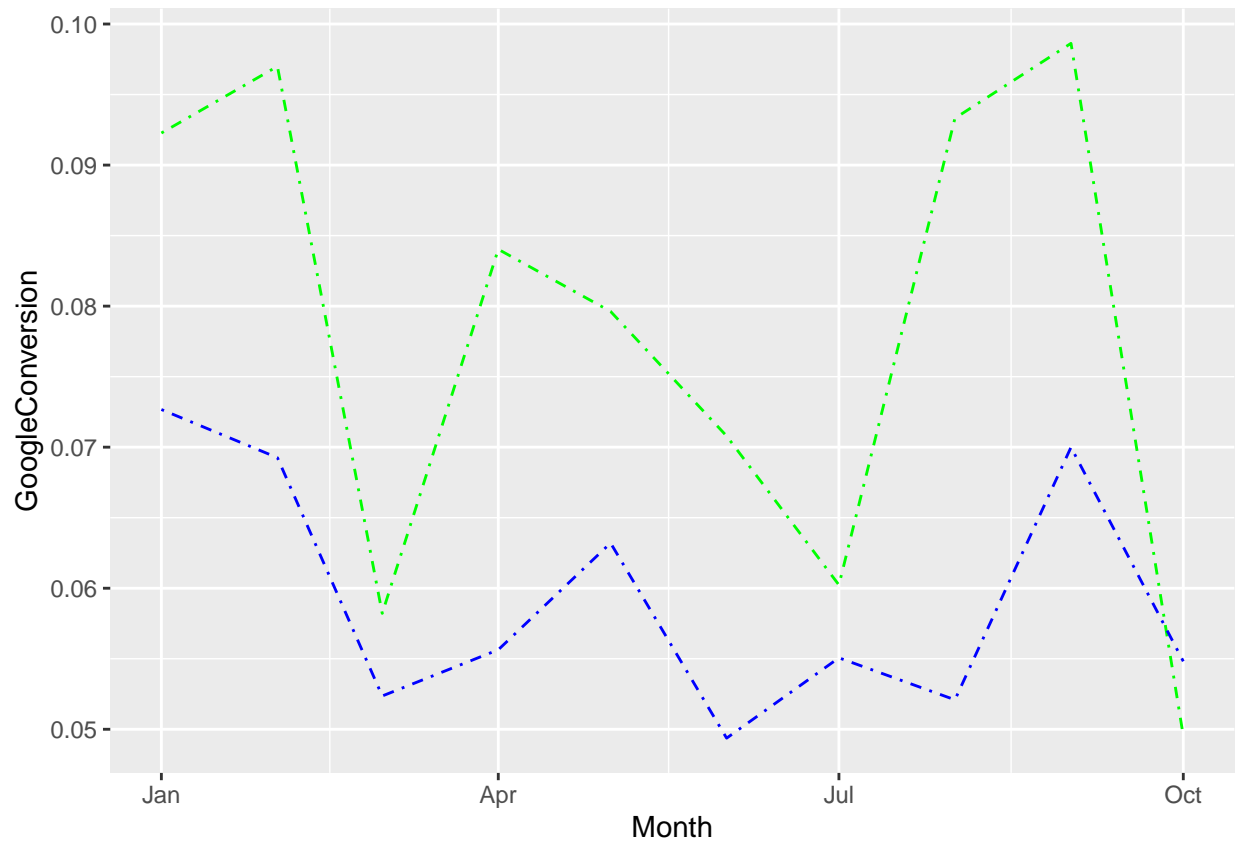
VideoStarts



App video plays (solid blue) stays constant, wapo.com (solid pink) makes the difference for the total (solid purple) Also appears to follow a trend with MSN (dashed green). This prediction matches our correlation tests.

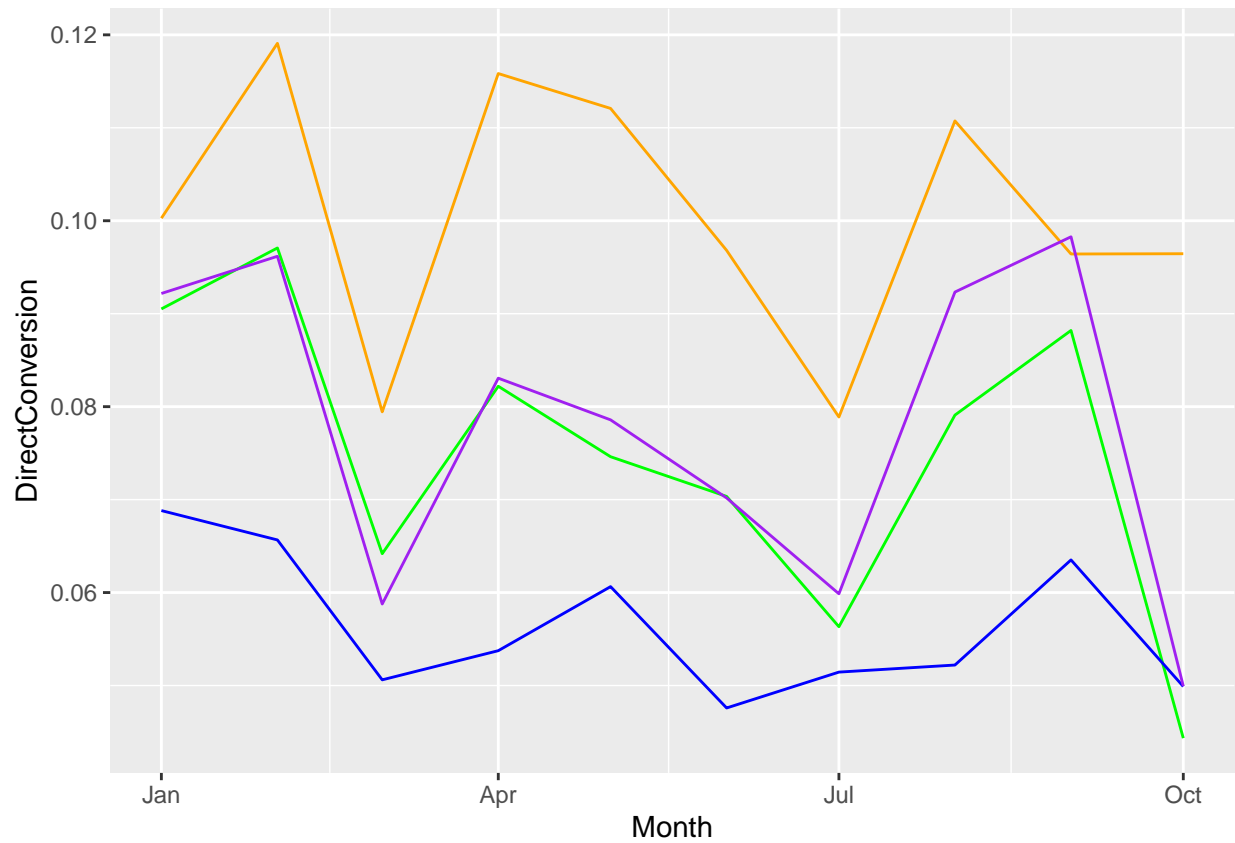
Variable	Correlation w/ Total
wapo.com	0.9997233
WaPo_Apps	0.4236868
Facebook	-0.0496961
YouTube	0.111523
AppleNews	-0.084465
AOL	0.3561127
MSN	0.6630218

VideoStarts_FB_andGoogle



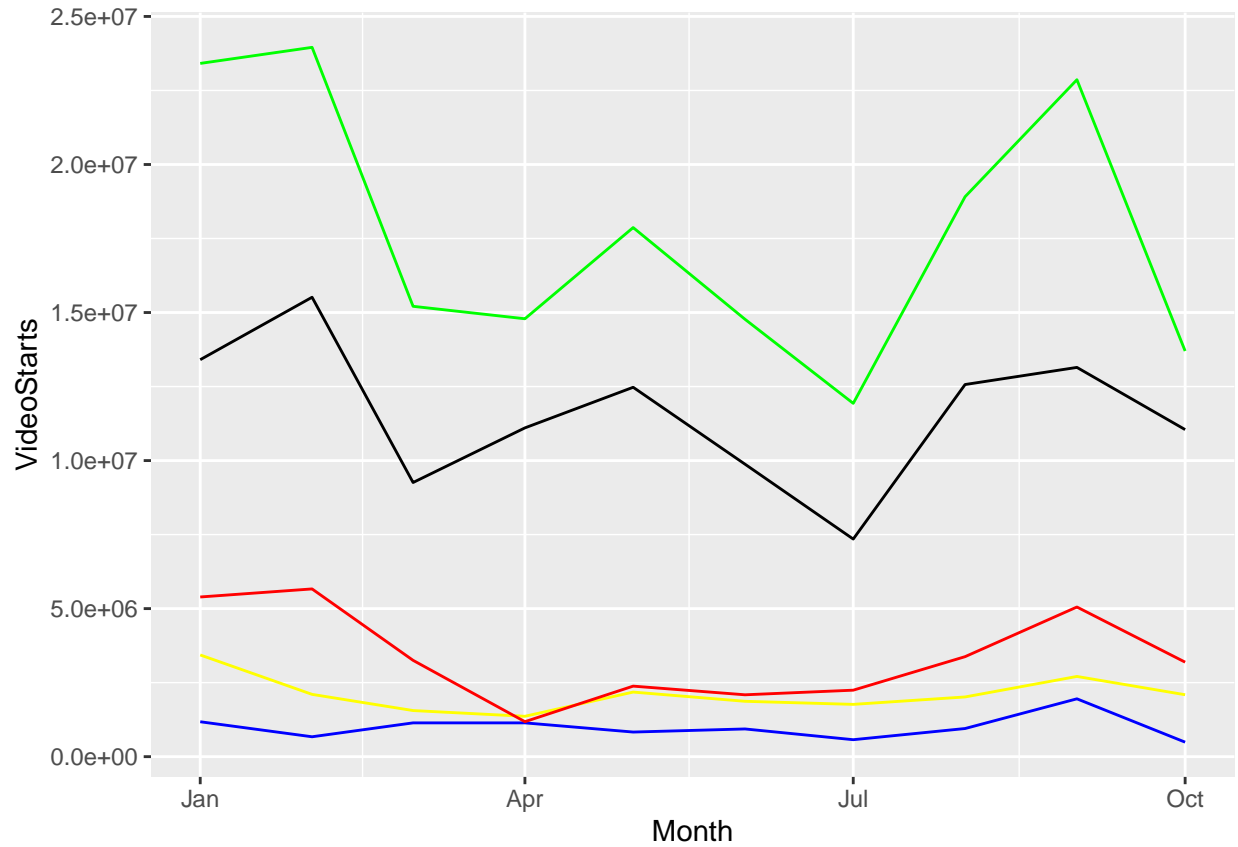
Google referrals dipped dramatically. Also, conversions from Google referrals (green dashed line) were half as successful. Both Google and Facebook (blue) decreased, but Google's drop was incredibly steep.

VideoStarts_ReferrerType



Conversions for Direct (green), Social (blue), and Search (purple) all dropped significantly. Only OtherWeb-Sites (yellow) stayed consistent at 9.6% for both months.

VideoStarts_SiteArea



Everything but VideoPages (yellow) is a statistically significant predictor of VideoStarts (green):

- Homepage (blue)
- ArticlePages (black)
- Others (red)

VideoStarts__SiteSection

Variable	Correlation w/ Total
WP_PostTV	0.98179
WP_Politics	0.6651529
WP_Local	0.6199445
WP_National	0.2657949
WP_Opinions	0.4597007
WP_Lifestyle	0.6343498
WP_World	0.1991396
WP_Homepage	0.5059815
WP_Powerpost	0.1810321
WP_Business	0.140148
WP_Sports	0.5026746
WP_Entertainment	0.3061508
Others	-0.0515209