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1. **Select two categories from this year's Academy Awards (http://www.oscars.org/oscars/ceremonies/2019). Look up the nominees and do a Google trends analysis. Leading up to the ceremony, did the trends predict the ultimate winner? Try to explain what you observe, even if your results are not quite right on.**

Actor in a Leading Role
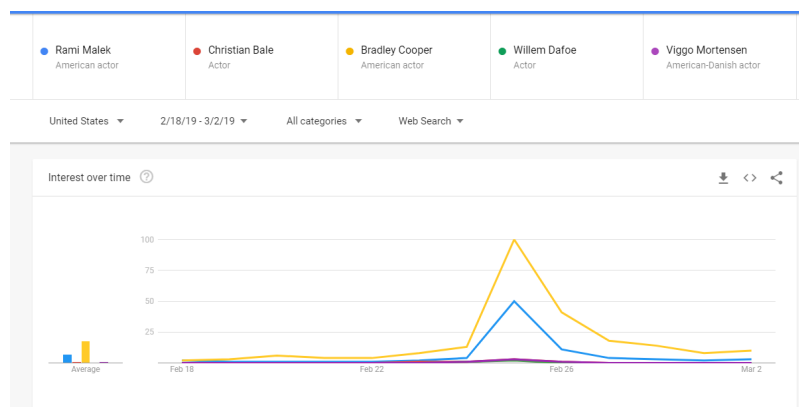
These were the 5 nominees for this category, with Rami Malek being the winner. Although at first it appears that the searches in the weeks leading up to the event did *not* predict the winner—since Rami had only 50% the peak search popularity that Bradley Cooper did—some investigation soon reveals why.

It turns out that Bradley Cooper did a special musical performance with Lady Gaga at the Oscars, which would of course drive more searches. What if we control for that in our analysis?
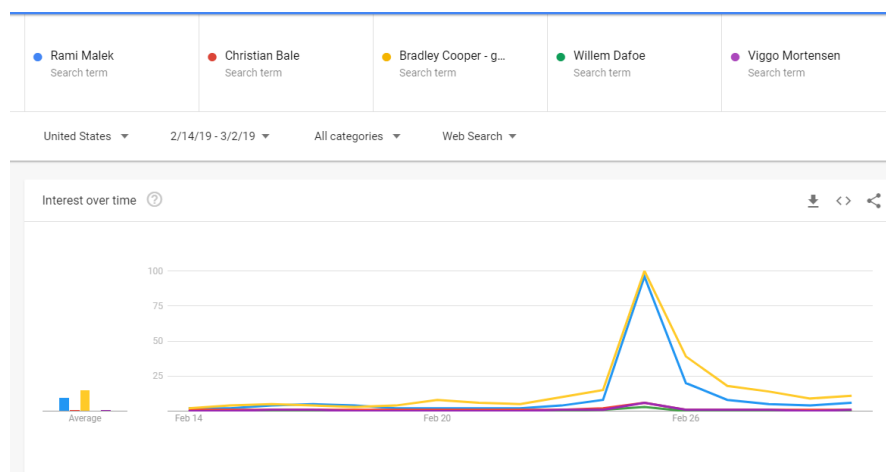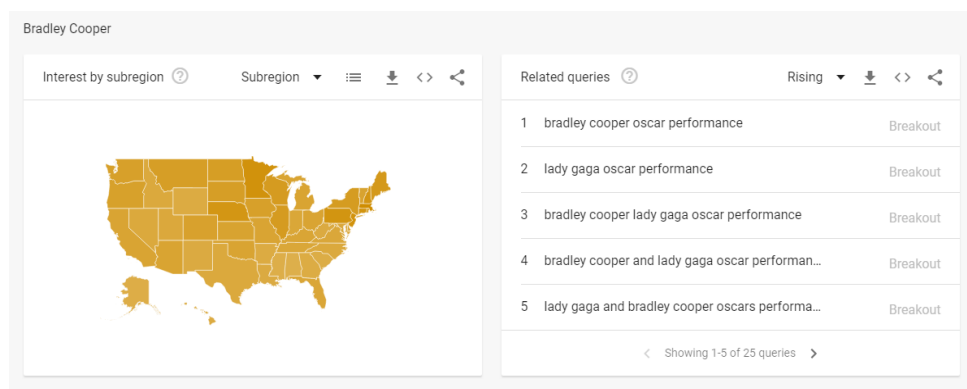

Although this is *much* closer, it appears that Cooper may just be a more popular figure and therefore search term than Malek. Or, he was the favored candidate but Malek won anyways!

Animated Feature Film
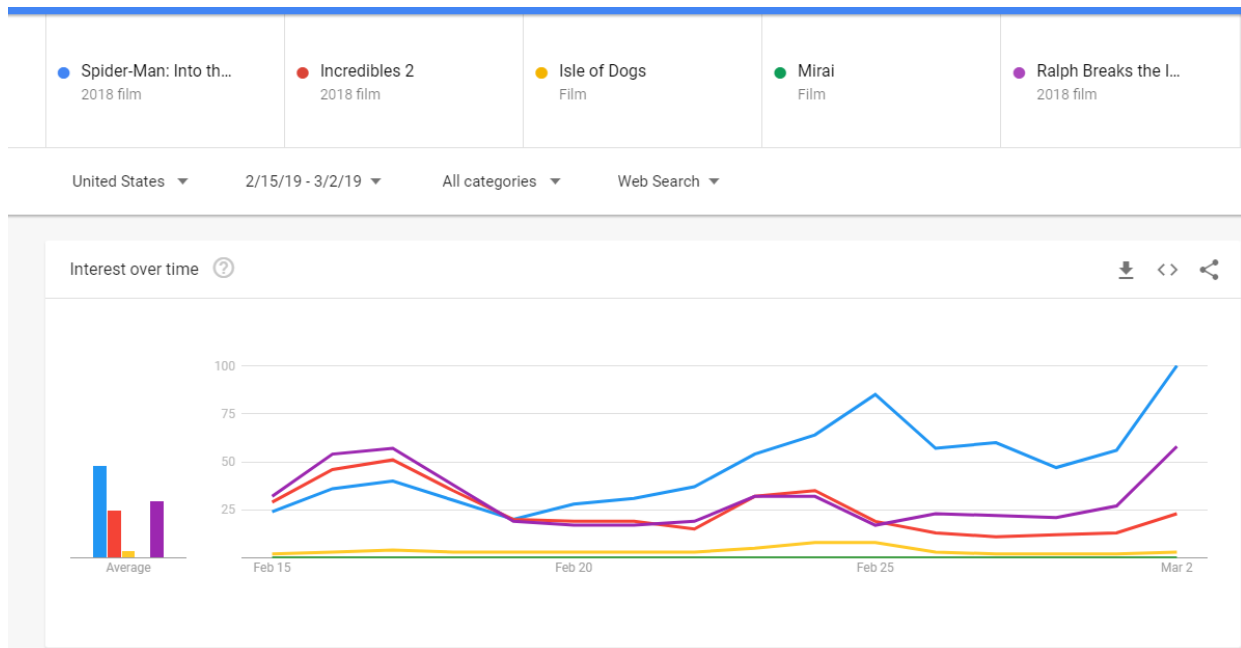
This category is much more straightforward, with Spider-Man (the winner) taking the lead (in searches) several days before the Oscars and maintaining it through the event. In this case it appears that search terms were quite predictive of the winner. Also interesting is the huge growth *after* the Oscars. Close examination shows that this was the weekend following the event—the perfect time to check out some award-winning movies you haven't seen!

2. **What is the trend in interest in Samsung mobile phones? In iPhones? Where is interest the greatest or least? Can you explain why?**
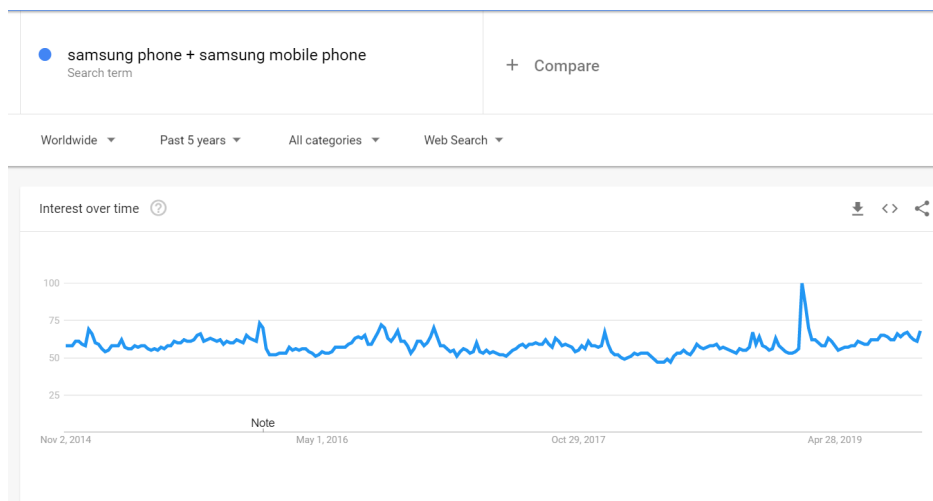

For Samsung the interest has remained relatively stable, with spikes around holidays and new phone releases. Especially noticeable is the large spike in Feb 2019, which was when Samsung hosted a large event to reveal the Galaxy S10.

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Interestingly, searches are highest in Sri Lanka of all places (as a percentage of all searches there). I couldn't explain this in spite of my searching! Following were a few places in the

Caribbean and around India, and then (not shown) the Philippines and the U.K. The country with the lowest percentage of these searches is Russia, also with no apparent reason.
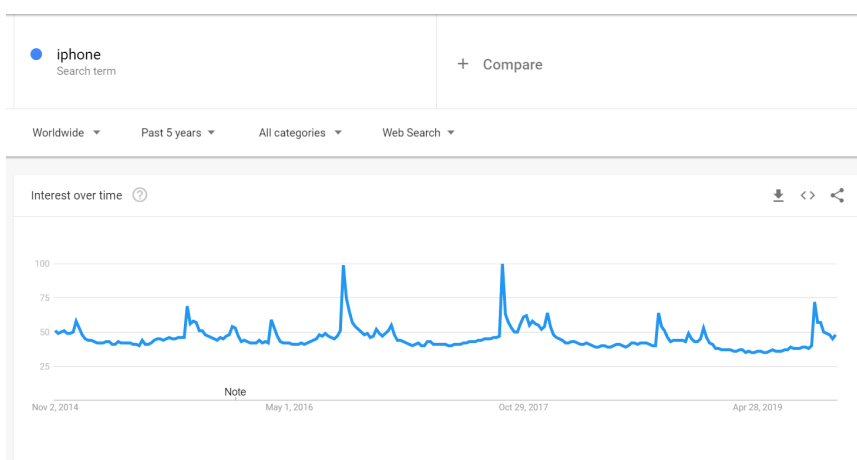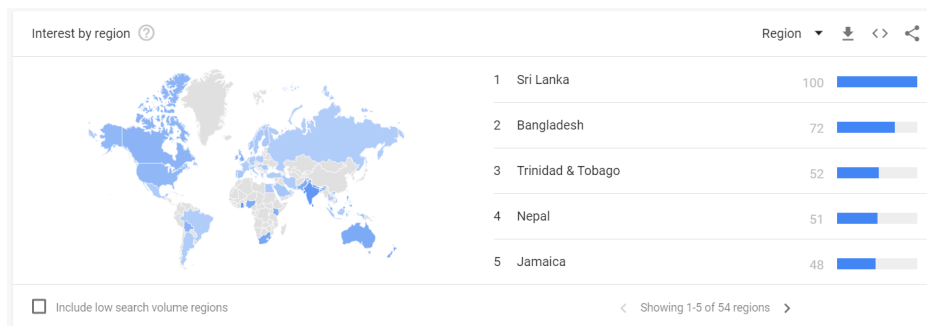

For iPhones, the greatest peaks are very consistently around new product announcements. These tend to happen every September, leading to the large spikes you can observe here. Overall the search interest has remained fairly consistent over time.
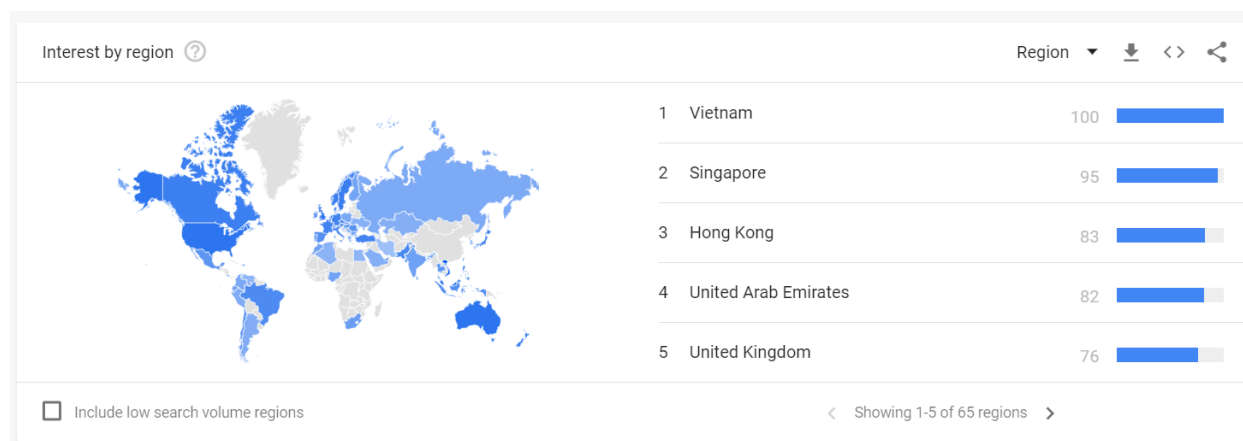
Although I can't explain why Vietnam searches are so focused on iPhones, the other top 10 countries make sense—all are generally wealthier and include some more expected target markets such as the UK, U.S., and Australia.

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3. **Select a favorite consumer product, note trend in interest over time, and try to explain what you observe.**

I opted to look into Kitchenaid electric stand mixers, since I enjoy cooking and baking and would be interested to know when they are most popular or even when they go on sale!
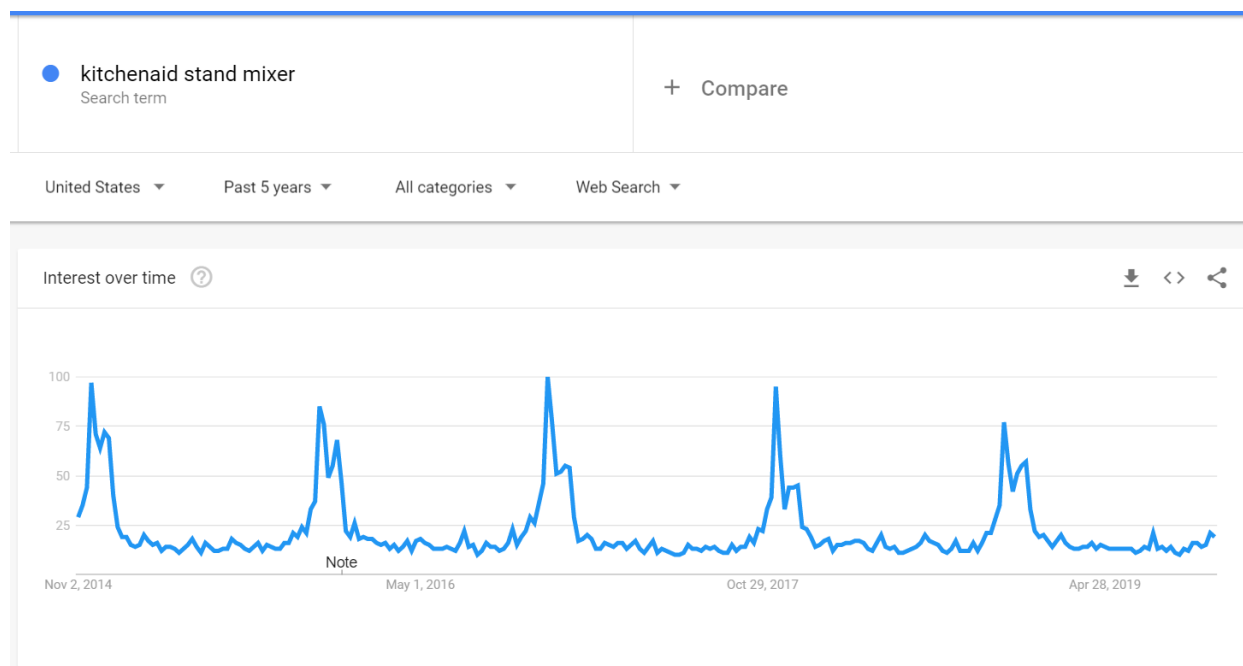
Although I knew that Kitchenaids would probably be more popular around holidays, I didn't expect the massive spike that would occur in the end of November every year, *before* the more moderate jump right around Christmas time. A little pondering and calendar exploring revealed the cause—Black Friday! Electric stand mixers are big-ticket items that would be especially popular around big discount holidays like Black Friday. I myself have searched for sales on these in the past on Black Friday. Thus we see the large bump in popularity on the week of Thanksgiving each year, followed by a drop until Christmas, then back to normal.