

From: Johanna Wright [REDACTED]@google.com]
Sent: 4/8/2017 6:07:16 PM
To: Susan Wojcicki [REDACTED]@google.com]; Cristos Goodrow [REDACTED]@google.com]
CC: Aman Thakur [REDACTED]@google.com]; Neal Mohan [REDACTED]@google.com]; Woojin Kim [REDACTED]@google.com]
Subject: Re: BBC Child Interrupting Analysis

I'm not sure about notifications. I don't see them in the analysis. Aman, did you look at this?

One more really interesting idea came up yesterday, which was that autoplay/mix might be a good place for viral videos. The idea came up in the context of a music discussion, where using these lean back experiences is our approach for seeding new music with users. I think viral videos and unheard music have similar characteristics in that you don't really know from the title/thumb why it is compelling, so you are unlikely to click, but you like it after you watch.

At a high level, my take has been that viral videos are not our core priority but are part of being the home for all public video. I had imagined we would make some fixes as a result of this analysis but it would not be our top priority. Does this sound right? If so, can look into UI & autoplay as next steps.

On Sat, Apr 8, 2017 at 6:38 AM Susan Wojcicki <[REDACTED]@google.com> wrote:

Thank you for sending.. I appreciate the deep thought and history that went into this and understand how driving long term repeatable experience is better and more sustainable than the one offs. I also understand YT vs FB have different strengths.

This was a particularly beloved video by a set of the population (yes maybe older and not interested by teens). Did we send notifications on it to any part of the population? if so, how many and how did that do?

I do think the facebook feed context of friends/ vs our thumbnail only really does drive a difference so it would be good to understand what else we could do w/commentary to help users select the right videos for themselves.

thx!!

On Wed, Apr 5, 2017 at 3:28 PM, Cristos Goodrow <[REDACTED]@google.com> wrote:

Here is the link: <https://docs.google.com/document/d/1uyjWphepq63EFOq936z8Mf0rYE3pO2NCbWk4-neHMNg/edit#>

Also, pasted below for your convenience. Sorry that I didn't have time to make it shorter.

Have a safe trip.

Viral Videos: Why have them?

In 2011, after much discussion and debate, as part of the Hitchhiker project we thoughtfully decided to forgo viral videos and focus instead on fostering channels that could build an audience who would return frequently to YouTube.

When I'm bored, I can always turn to YouTube

This catchy but controversial phrase was the aspiration for the [Hitchhiker project](#) in 2011. The goal was to encourage viewers to build a habit of visiting YouTube frequently. At that time, over half of the viewership of YouTube was off-site, through embeds and links. YouTube itself was not a “destination”, except as a search engine.

This situation was difficult for at least two reasons:

- it was hard to understand how improving the YouTube site could grow viewership over the long term (relative to improving playback and giving more control to embedders)
- there was concern that competitors could stop using YouTube embeds, switch to another hosting service (or create their own), and then the traffic would diminish.

As part of the Hitchhiker strategy, the YouTube homepage was re-created as a reverse chronological feed of subscription uploads, much as the current subs tab behaves today. Viral videos, curation, and personal recommendations were removed. The strategy for getting viewers to return frequently to YouTube was to get them to subscribe to channels that uploaded frequently, and rely on the viewer's Fear Of Missing Out (FOMO) to cause their return visits. Hence, Hitchhiker has been referred to as “the channelization of YouTube”, and with its launch in 2012 we publicly told creators that we intended to favor frequent uploading. Overall, the channellization strategy worked to create media brands that viewers became attached to, even when they weren't subscribed, but the Homepage strategy failed.

But why reject viral videos?

Although viral videos are frequently associated with YouTube, even more so in 2011 than now, they didn't account for much total viewership back then. Many studies had been conducted about how videos go viral and what makes a viral video, including [Catching a Viral Video](#), among others. Many viral videos got most of their viewership **off of YouTube**, and analysis of the recent [Children Interrupt BBC News Interview video](#) demonstrates this remains true. The typical pattern is that a video goes viral due to appearance on an external site and through social sharing via email, Reddit, FB, etc (ie. “off-site”), getting many views in a few days. Later, the video continues to receive viewership almost entirely on YouTube through search and recommendations, as the external sites and sharing move on to something else.

More importantly, **viral videos do not drive repeat viewership or frequency**, *relative to other things like subs or even watching several videos from a channel*. This runs counter to personal intuition, especially among older people who don't use YouTube very much and associate YouTube primarily with viral videos. Don't worry: it was contrary to the conventional wisdom in 2011 as well.

Before Trending, there had been a long list of attempts to drive viewership and frequency from viral videos, all of which demonstrated instead that viral videos don't drive (much) frequency or viewership. This is why we were very careful to state that the mission of Trending is not DAVs or watchtime or any other viewership goal, but instead **brand perception**.

Why does it work for Facebook?

I don't think viral videos “work” for Facebook, if by “work” one means “drives frequency”. Rather, Facebook derives frequency of visits through the desire for communication among acquaintances. Given that frequency of visiting - say 1.2 billion people visiting on average 14 times per day, for a total of 16 trillion visits per day - FB can “make” a video go viral by inserting the video into the news feed. Further, the very nature of viral videos is that they are shared, and Facebook is a platform for sharing. But Facebook would have 16 trillion daily visits even without viral videos, which means that the viral videos do not drive the frequency.

But what about our mission to be the primary destination for all public videos?

"All public videos" definitely includes viral videos, so in order to fulfill our mission we must ensure that the people can find viral videos easily on YouTube. This does not mean that viral videos must "go viral" on YouTube (which few viral videos ever did anyway), or that they must be seen first on YouTube, or that they must get most of their viewership on YouTube .

Usually, a viewer will search to find a particular viral video, even an old one, and search must return the video, so the video must be uploaded and public on YouTube. Further, we should make it easy to see which of several possible copies of the thumbnail is "the" video. In the past, we had a separate visual treatment - bigger thumbnail, larger font - to distinguish the viral video at the top of search results from copies or parodies. We removed this treatment when we learned from experiments that viewers were *skipping over* the right result at the top because it was visually distinct from the other search results.

We also want to help the (relatively few) viewers who don't have a particular video in mind, but just want to see what's going viral. For this purpose, we created and maintain Trending as a top level, prominent navigation. Although it drives relatively little viewership or DAVs, especially given its prominence, Trending is critical to ensure that the YouTube brand remains associated with viral videos.

But what if the viral videos are no longer uploaded to YouTube?

So far, there is no evidence to suggest that viral videos will not be uploaded to YouTube. YouTube has a large audience, has good search and discovery, and shares ad revenue, which makes uploaders likely to upload their viral video to YouTube even if they upload it also, or first, to Facebook.

But can't we change direction and get viral videos more views on YouTube than FB?

We can change direction, but we cannot get more views for viral videos over the first three days on YouTube than Facebook.

The fundamental problems are:

- Virality is driven by sharing endorsement and accidental discovery in a visit
- Viral videos do not drive frequency of visits (for many people), but are a product of frequent visits
- Facebook has at least 10x more visits than YouTube, and sharing endorsement from acquaintances

We can certainly try things that head toward the direction of getting viral videos to have more views on YouTube than Facebook: we can put a viral video at the top of every homepage and every watch page, we can send notifications for viral videos, etc. Would doing these things be worthwhile, given that they don't generally represent on-going brands that are being built on YouTube, and we have so many other things to do?

More importantly, over-promoting a viral video on YouTube's Homepage has been demonstrated to reduce overall DAVs. If Facebook doing the same kind of promotion of viral videos does not reduce their visits, then there is no way to generate more views than Facebook for viral videos.

But should the people who like viral videos see them?

Yes! We should absolutely recommend viral videos to the people who would want to see them. We should have recommended Children Interrupt BBC News Interview video to Sundar if we didn't, but we *should not have recommended* that video to any of my teenage children: they are unlikely to watch it, and there are many other videos that each of them would prefer to watch.

Currently, Trending videos are nominated to appear in personalized recommendations.^d The analysis of the Children Interrupt BBC News Interview video demonstrates that few of the people who saw this video on their YouTube Home screen chose to watch it: the video appeared on Home 38M times to 29M unique users in the first three days, but these impressions garnered a little over 1M views. This performance suggests

that our systems recommended it to too many people, the wrong people, or that people need the social endorsement to want to watch it (all three are probably true to some extent).

On Wed, Apr 5, 2017 at 3:06 PM, Cristos Goodrow <[REDACTED]@google.com> wrote:
Yes, I wrote something that I'll forward I'm an hour or so, sorry for the delay.

On Wed, Apr 5, 2017, 12:53 PM Susan Wojcicki <[REDACTED]@google.com> wrote:
I just took off for NY for the next week. Can you just send a short explanation in email? If I disagree then we can talk in person when I'm back. thanks!!

On Sat, Apr 1, 2017 at 9:17 AM, Susan Wojcicki <[REDACTED]@google.com> wrote:
Yes I would like to understand the rationale and what this means. Thanks!

On Sat, Apr 1, 2017 at 9:13 AM Cristos Goodrow <[REDACTED]@google.com> wrote:

I can explain more about this, but it was a decision we thoughtfully made after much debate in 2011 with the Hitchhiker project.

On Sat, Apr 1, 2017, 8:53 AM Susan Wojcicki <[REDACTED]@google.com> wrote:
Thank you for sending. The analysis about the UI being so different is very interesting.. its a good point that we don't provide much social, qualitative info around the video for people to decide if they want to watch.

We have made deliberate choices in the past to not focus on viral videos and therefore as such they have not been a priority.

Why is this true? This doesn't make a lot of sense to me? What does it mean not to focus on viral videos? and why not? While I understand we want to be more than this, it seems like its something that has been core to YouTube so don't want to lose one of our core attributes either.

thx!

On Fri, Mar 31, 2017 at 5:16 PM, Johanna Wright <[REDACTED]@google.com> wrote:
Hi Susan,

After Exec Circle I had Aman look into this video and he has a very complete analysis. My take:

Overall it did well 14-16M views in the first 3 days. It did especially well on Trending. It did not perform as well on Home. On Home we could have promoted it more, but probably more importantly the UI did not look as good as it did on the facebook feed where it had all the social context: likes, repeated in feed, friends, etc.

In many senses this seems like what we struggle with on freshness where Facebook gets a boost in the beginning and we have a longer shelf-life. We have 24M views now. There are a set of ideas to do better outlined below.

Johanna & Woojin

Executive summary

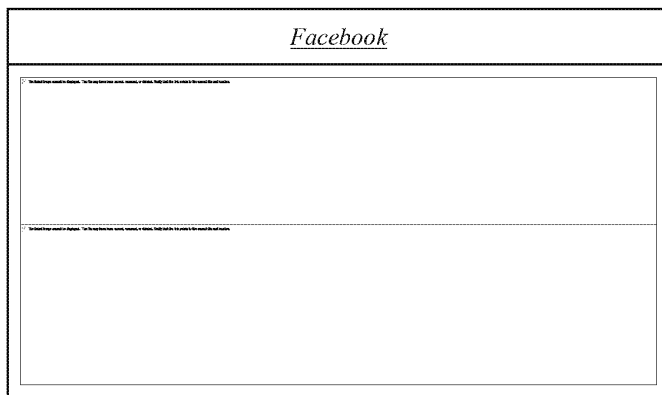
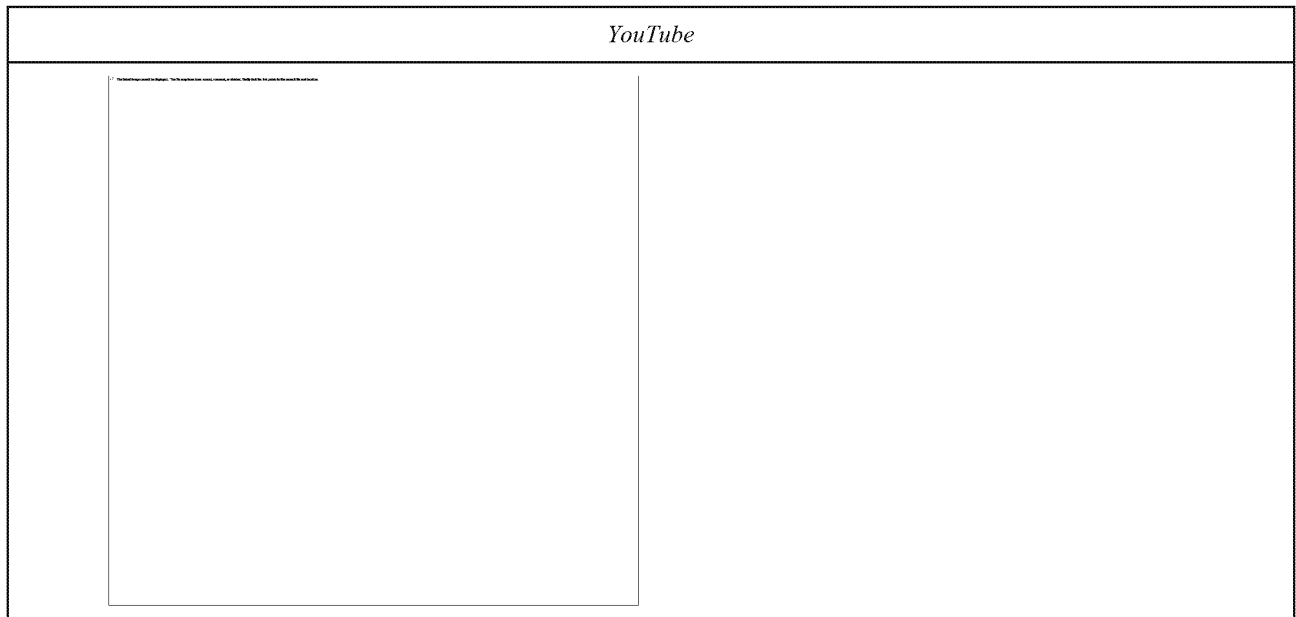
A video of children interrupting a live BBC interview went viral on the internet generating ~16M views on YouTube in 3 days (Facebook views ~20M). Our search and discovery systems responded as follows:

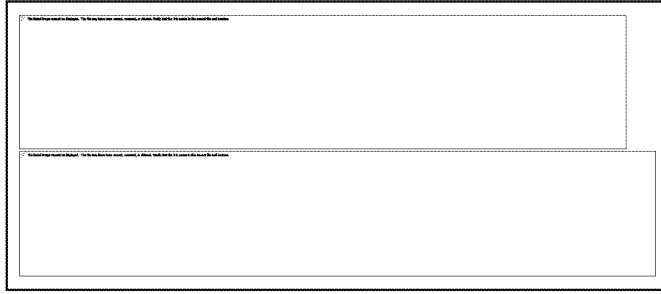
- **Trending tab:** the video appeared in Trending within 6 hours and rose to #1 position where it stayed for 30 hours
- **Search:** the video was among top search results for [bbc] and [bbc interview] within 5 minutes of upload.
- **Home:** Home page served 38M (25.9 M unique user) visible impressions of the video in the first 3 days; nominated as trending content.

While users who watched the video showed a high level of engagement (97% watch completion rate), the video fared relatively poorly as a recommendation on Home: lower CTR, lower WatchTime/impression ratio, and higher “Not interested” rate than the average video recommended on Home.

We believe the subpar performance on Home is due to the lack of compelling context (e.g. social context) that’s provided around the video. Specifically, on YouTube Home, the only context we furnish is the thumbnail/title/some metadata; there’s no clear hint to the user that this is a video worth watching. Compare that to the social context provided around the video on Facebook, where friends often endorse and vouch for the hilarity of the video, drawing the user to click thru and engage with the video.

WHAT USERS SEE





We have made deliberate choices in the past to not focus on viral videos and therefore as such they have not been a priority. However here is a list of improvements ideas that will help us better capitalize on and highlight trending videos -- some of these ideas are already active projects:

- **Home:** Nominator for videos getting high traffic from external sources
- **Home:** Endorsement for trending videos. Identify viral videos (*some subset of trending*) and highlight/send notifications to users.
- **Search:** Suggest trending queries in zero state of the search bar
- **Search:** Highlight the main canonical/authoritative copy of the video to reduce cognitive load when multiple copies of the video exists.
- **Build social context:** Much of the motivation to watch and share may be triggered by shared experiences that networks like Facebook offer and YouTube currently lacks. Build social context such as a) Who among my network watched this b) Who among my network liked this c) What is being said in my network about this etc.