

FORUMS OF THE VERGE

Hypecheck

a scientific approach to check the Hype

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1 What is a Hypecheck?

In today's world of consumer electronics, Hype is the main driver of sales. In an environment of ever increasing marketing and PR, paid endorsement and targeted ads, we face a reality where for some products a bigger part of the money we pay for it goes to the marketing budget than into research, development and manufacturing. That means we effectively pay more money, to make us buy things, than for the things itself. This isn't restricted to consumer electronics. Blockbuster movies, for example, usually spend as much on marketing as on production.

The mechanics of that marketing is psychology and big data. Companies like Google collect data on us to make sure to hit us with ads, that we are most likely to click on. Facebook conducts experiments with our feeds, to see how that affects us. Advertisers use psychology to increase the effectiveness of their ads. The whole industry spends lots of resources to figure out how to make us buy stuff. In this environment, how do we quantify whether a product is actually worth the hype? How do we find out if we are being manipulated to buy crap, or if the crap is actually worth it?

The answer to that question is the Hypecheck.

A Hypecheck should be composed of a multitude of considerations. There is not a single equation that can account for all factors of Hype and Reality. There is, however a constant pattern to every aspect of the Hypecheck - it compares the Hype to the Reality.

2 Comparing cumulative Hype before and after product release

2.1 Hype over time

Given that Hype is the popularity of a product on a given moment, we can easily see that Hype is something that changes over time. The Total Hype is composed of Brand Hype and Product Hype. For examples of Hype timelines based on Google Trends data see figures 2.1 and 2.2.

In order to quantify the cumulative Hype, we have to integrate the Hype over the time.

$$cH = \int_{t_0}^{t_1} H(t) dt \quad (2.1)$$

Integrating over different phases of the product Hype cycle, we can now establish different cumulative Hypes for those phases.

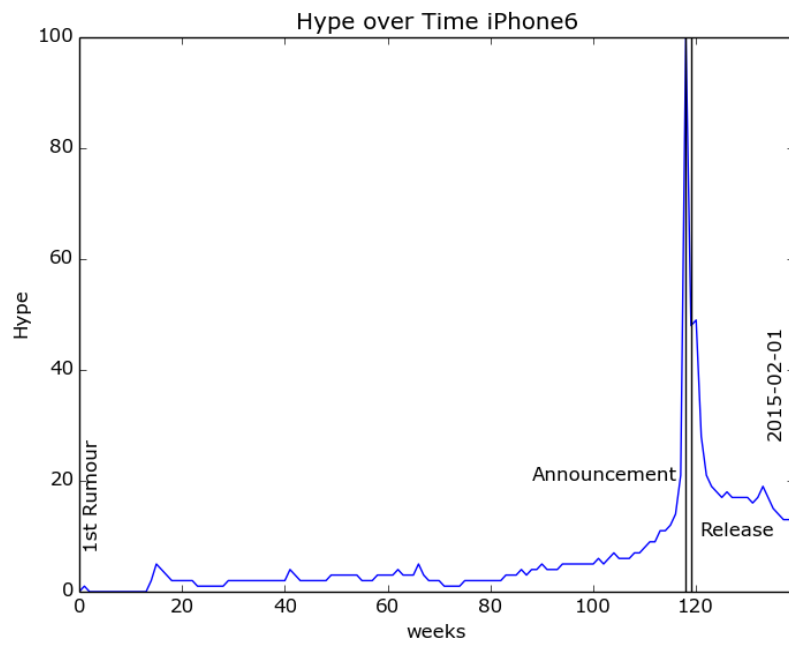


Figure 2.1: Hypetimeline iPhone 6

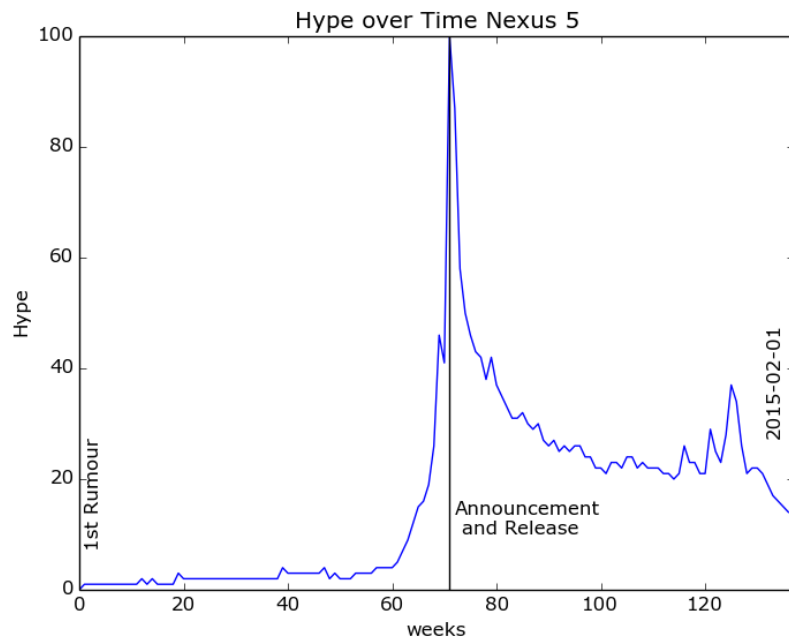


Figure 2.2: Hypetimeline Nexus 5

2.2 Cumulative Rumour Hype

The first Hype phase is the pre-Announcement, or Rumour phase. In this phase, the whole Hype is fuelled by expectations, leaks and stuff that people make up to feel important on Twitter. Most of the Total Hype comes from Brand Hype, the Product Hype is mostly a projection of Brand Hype as well. It spans from first rumour to announcement.

$$cH_{Rumour} = \int_{t_{1stRumour}}^{t_{Announcement}} H(t) dt \quad (2.2)$$

2.3 Cumulative Anticipation Hype

The next phase is the Anticipation Phase, spanning from announcement to release. Total Hype shifts from Brand Hype to Product Hype and is mainly marketing driven.

$$cH_{Anticipation} = \int_{t_{Announcement}}^{t_{Release}} H(t) dt \quad (2.3)$$

2.4 Cumulative Real-life Hype

The last phase in the product Hype cycle is the post-Release, or Real-life phase. It spans from the release to the present. In this phase, the Hype is driven by product quality. Good products can establish a long and steady Hype, as they live up to the expectations.

$$cH_{RealLife} = \int_{t_{Release}}^{t_{Present}} H(t) dt \quad (2.4)$$

2.5 Hypequotient

To check the Hype, we now can compare the different Hype phases. As we are interested in how the product holds up to the Hype, we compare the pre-release to the post-release Hype. We call this the Hypequotient.

$$Hq = \frac{cH_{RealLife}}{cH_{Rumour} + cH_{Anticipation}} \quad (2.5)$$

If the Hypequotient is lower than one, it means that the post-release Hype can't hold up to the pre-release Hype. The product doesn't meet its Hypestandard. This means the product was over-hyped. It either is a bad product or it was marketed too aggressively. If the Hypequotient is bigger than one, the product actually does better than anticipated. The product is either really good or it wasn't marketed aggressive enough.

A lower-than-one Hypequotient is equally bad as a bigger-than-one Hypequotient. Lower than one damages Brand Hype for future product Hype cycles. Bigger than one means that the product could have had more Hype.

Optimal Hype Efficiency is reached when the Hypequotient is exactly one. In order to reach Optimal Hype Efficiency, companies have to balance Hype.

2.6 Example

We now want to calculate the Hypequotient for the two example product Hype cycles. As our data comes with constant time steps and our endresult is a division of two integrals of the same function over different time periods, we can safely substitute the integration by a simple summation of the Hypevalues during the periods.

For the Nexus 5, we get following results:

$$cH_{Rumour} + cH_{Anticipation} = 325 \quad (2.6)$$

$$cH_{RealLife} = 1922 \quad (2.7)$$

$$Hq = 5.9 \quad (2.8)$$

For the iPhone 6, we get following results:

$$cH_{Rumour} + cH_{Anticipation} = 484 \quad (2.9)$$

$$cH_{RealLife} = 423 \quad (2.10)$$

$$Hq = 0.87 \quad (2.11)$$

Based on this results, it looks the Nexus 5 was seriously underhyped, while the iPhone 6 was a little overhyped. Looking closer on the timelines, we however see, that the comparison lacks to account for the different release dates. The Nexus post-release phase is much longer than the iPhones, because it is an older device. To account for that, we have to recalculate the Nexus Hypequotient with the post-release phase limited to the same length as the iPhones. The new results are:

$$cH_{Rumour} + cH_{Anticipation} = 325 \quad (2.12)$$

$$cH_{RealLife} = 899 \quad (2.13)$$

$$Hq = 2.76 \quad (2.14)$$

The Nexus 5 stays underhyped.

This data fits quite nicely to what we experience - the Nexus 5 is a very nice phone with not a lot of Hype outside the tech enthusiast community, the iPhone 6 is a great phone with a lot of Hype. The Hypequotient so close to one shows that it's Hypebalancing is very good and the marketers have almost reached Optimal Hype Efficiency.

It is important to remember that for this example our Hypedata came from Google Trends and is thereby not a perfect Hypeindicator.

3 Getting Hype data

In order to analyse Hype, we need a way to measure it. Different methods of measurement will lead to different Hype values. It is therefore important to acknowledge, that we can only ever calculate Hypequotients depending on their Hype data. If we want to compare two different products, we have to make sure that the Hypequotients were calculated from the same type of data.

3.1 Google Trends

One source of Hype data is Google Trends. The problem with this source, however, is that it doesn't necessarily translate into Hype perfectly. It doesn't distinguish between search queries like 'where to get product xyz' and 'product xyz sucks'.

3.2 Sales numbers and preorders

Sales numbers and preorders could make interesting Hypeindicators. Preorders would indicate pre-release Hype, sales, without the preorders, the post-release Hype. Not all vendors release these numbers and not all vendors have preorders, so it's a hard to use this data for comparisons.