Yammer Analysis: A Drop in Engagement

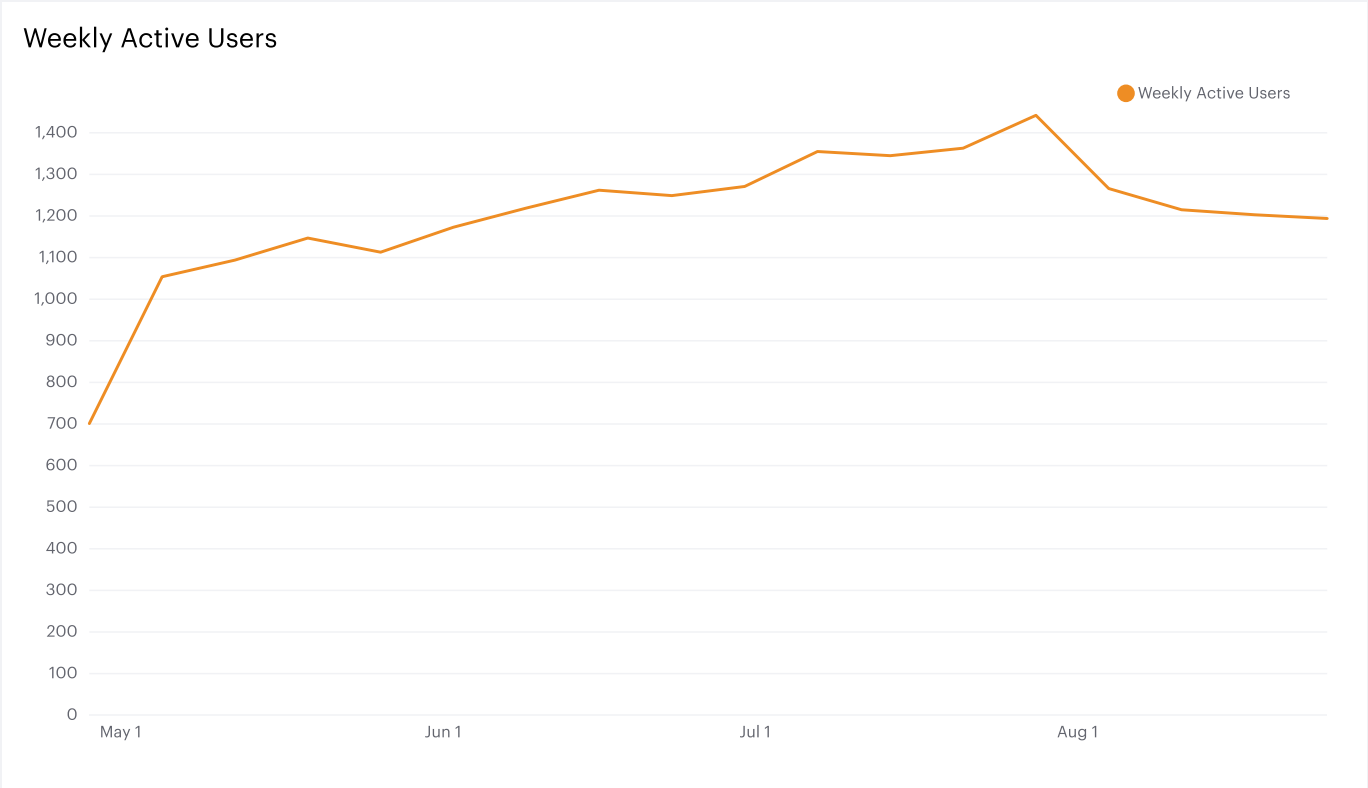
Case study using data from Yammer, a popular corporate social network tool.

Yammer's Analysts are responsible for triaging product and business problems as they come up. In many cases, these problems surface through key metric dashboards that execs and managers check daily.

The problem:

Tuesday morning, September 2, 2014, the head of the Product team walks over to my desk and asks what I think about the latest activity on the user engagement dashboards. I fire them up, and something immediately jumps out; **the dip**. I must determine what caused the dip in active users at the end of the chart below and, if appropriate, recommend solutions for the problem.

Note: this data is similar in structure to Yammer's actual data, but for privacy and security reasons it is not real.



About Yammer

Yammer is a social network for communicating with coworkers. Individuals share documents, updates, and ideas by posting them in groups. Yammer is free to use indefinitely, but companies must pay license fees if they want access to administrative controls, including integration with user management systems like ActiveDirectory.

Investigation

Before creating any queries, I explored some of the logical reasons that would affect engagement that I was familiar with. By exploring possible reasons for the drop I can find a starting point for analysis.

Possible Reasons for Low Engagement:

- Fad; A lot of social media platforms have come and gone
- Holiday or vacations; this data is from the summer
- Bugs in interface
- Tracking not properly working on site
- Content on site not engaging
- Complicated new update that drives away regular users or platform evangelist

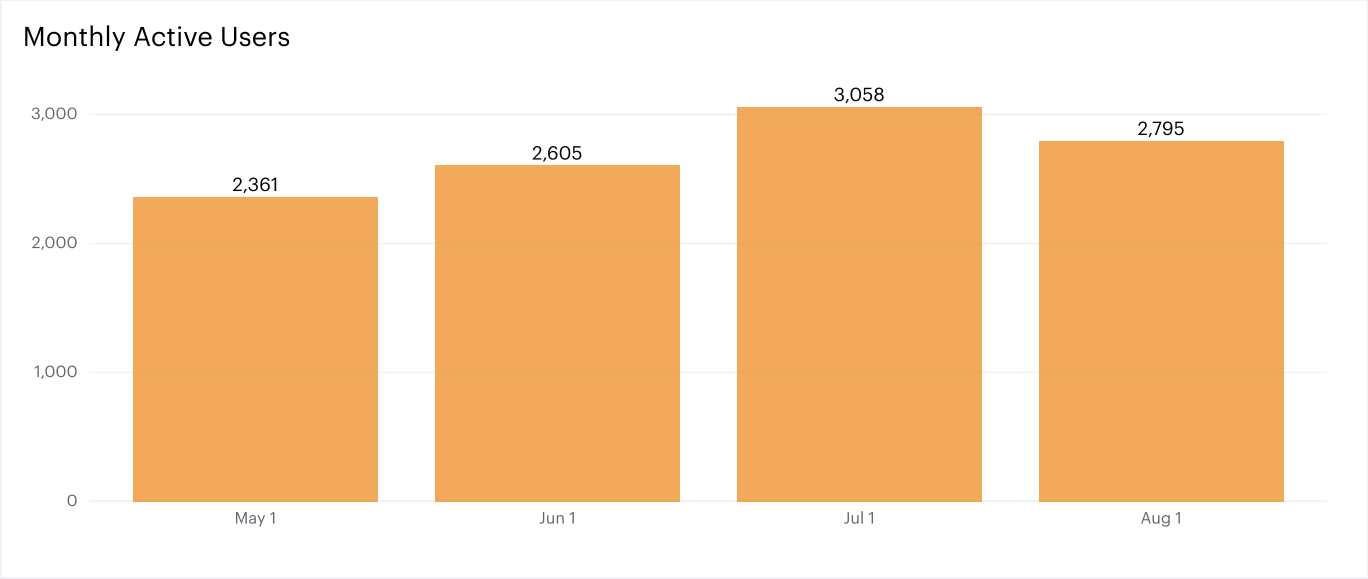
Data

- **Table 1: Users -** This table includes one row per user, with descriptive information about that user's account.
- **Table 2: Events -** This table includes one row per event, where an event is an action that a user has taken on Yammer. These events include login events, messaging events, search events, events logged as users progress through a signup funnel, events around received emails.
- **Table 3: Email Events -** This table contains events specific to the sending of emails and is similar to the events table.
- **Table 4: Rollup Periods -** This table is a lookup table that is used to create rolling time periods.

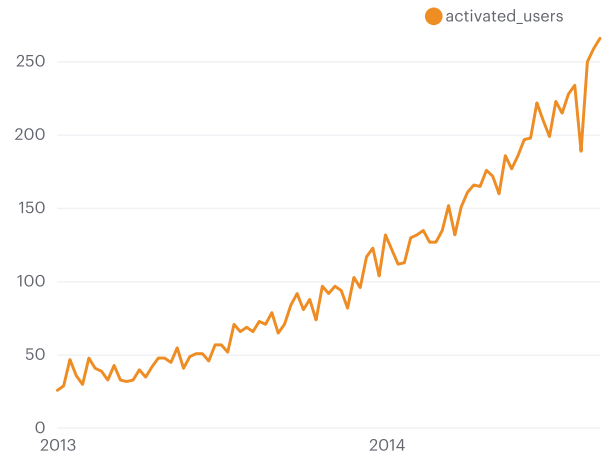
Analysis: Active Users and Growth

- Seeing that the drop took place around July, it was **possible that Summer** had an affect on active users. It is possible people were taking off from work for last minute vacations. It could also be a sign of kids going back to school and parents spending less time engaged with work activities at home. This could result in them not using Yammer at home and focusing on getting their children back to school.

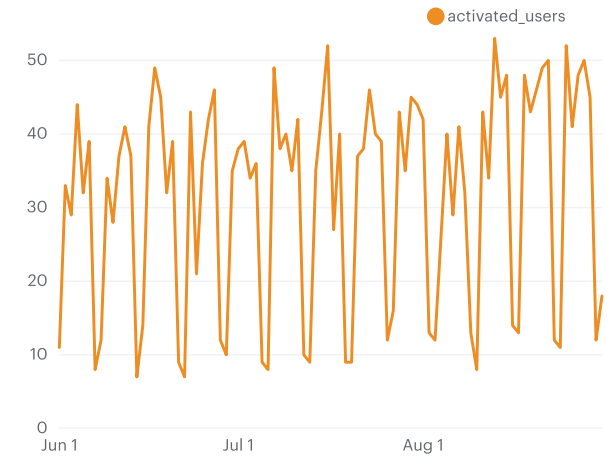
- Next, I looked for any indication of a fad by seeing if their growth had slowed down as well. Growth seemed steady with the normal patterns of slow activity on the weekend and newly activated users slowing increasing each week. There is one **bearish spike on the week of Jul. 28th - Aug. 4th**, however that wouldn't lead to an overall decrease in active users for the month.



Weekly Growth



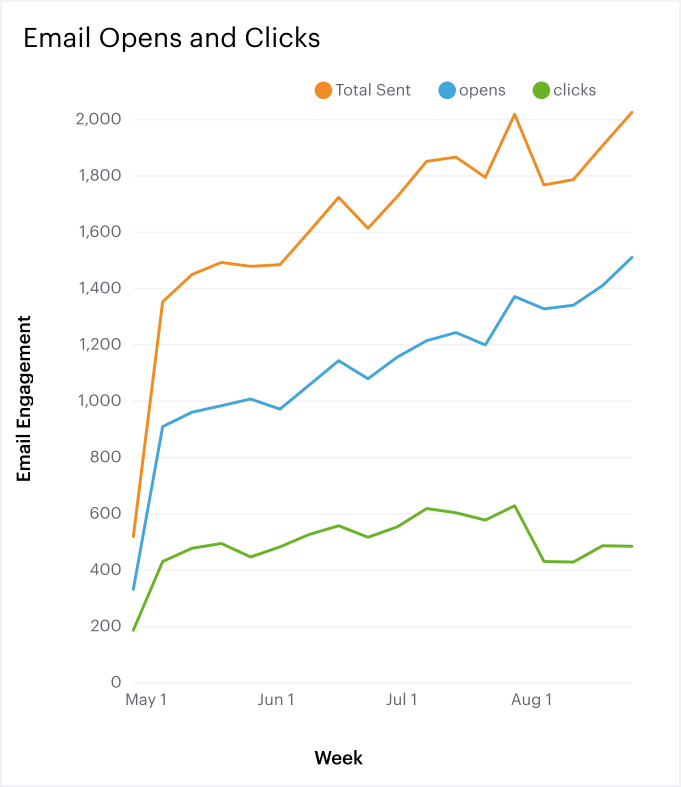
Daily Growth

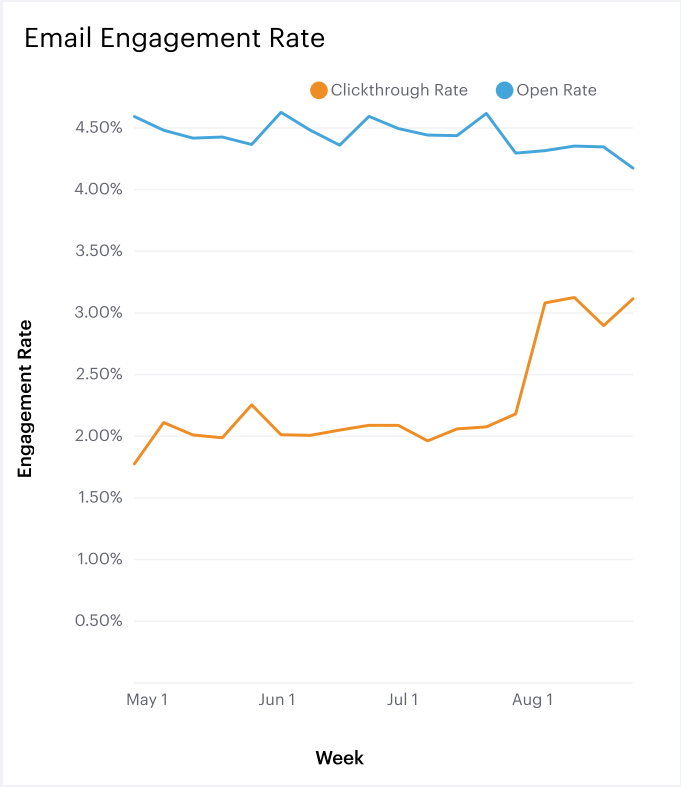


Analysis: Email Engagement

- The email clicks can appear conclusive to the low engagement at first glance, however the **total sent emails also drops by about 250 emails** on the week of Jul. 28th - Aug. 4th. I would conclude from this drop that they cleaned up their email database by deleting users who had unsubscribed or segmented out a group of users for a specific email that week.

- Further evidence can be found in the conflicting clickthrough rate on that same week, Jul. 28th - Aug. 4th. The clickthrough rate spikes up even though the **overall clicks significantly decreases by about 250 clicks**. This indicates that the users that received that email were either active users who didn't unsubscribe or the email sent that day was an announcement of a significant update to Yammer which generated engagement.





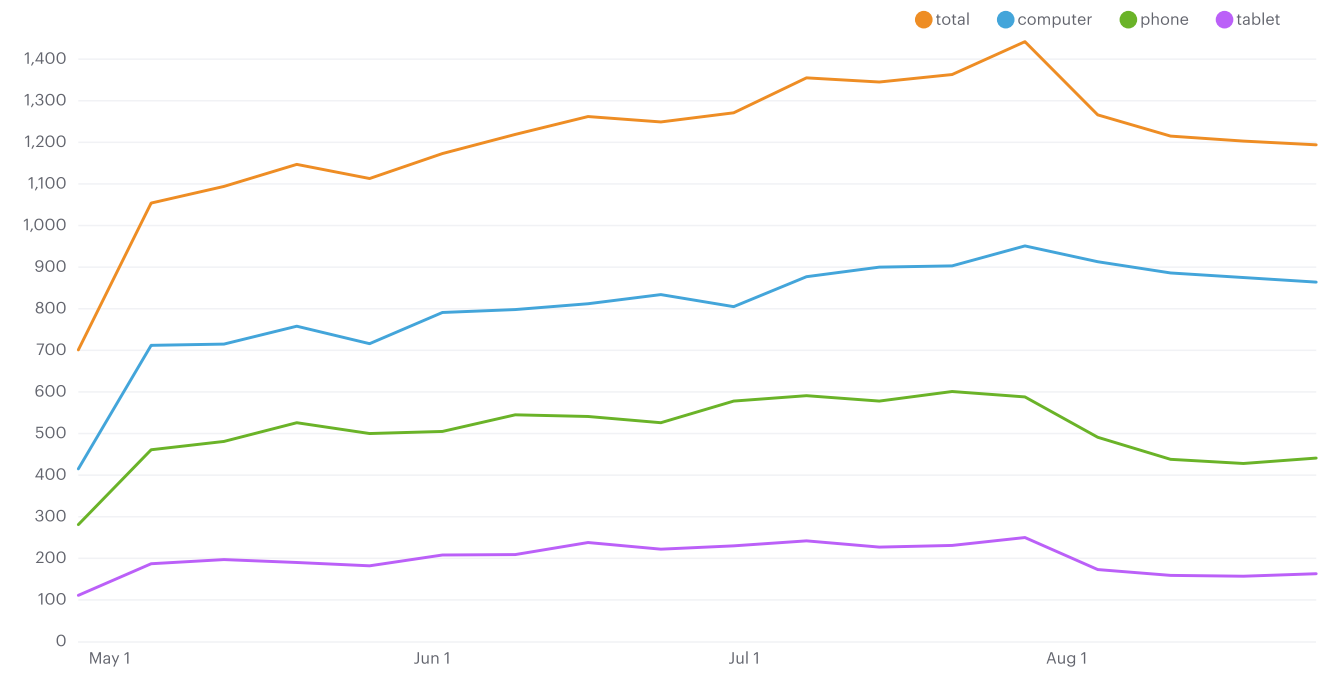
Analysis: User Engagement Source

- Finally, I viewed the activity by engagement source to search for bugs on desktop, phone, or tablet. Since I don't have access to any "fake" site or app update information I couldn't use that, but if I did I would identify if there was an update to the site or app.

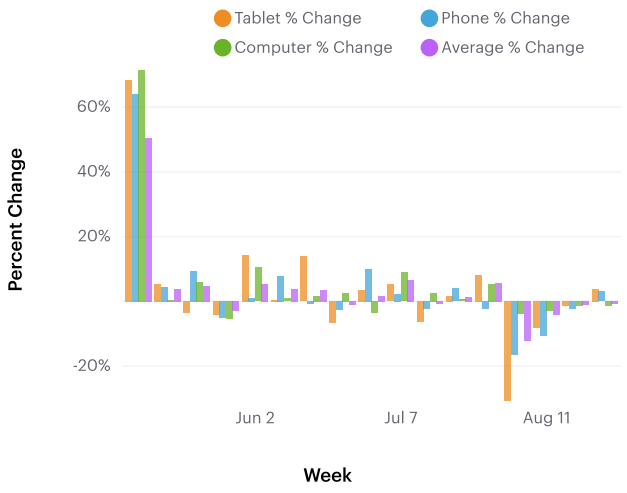
- When I initially looked at the different sources that the engagement was coming from it was easily apparent that mobile (tablet and phone) were dropping faster than desktop. It appeared that computer usage was slowly declining, followed by tablet usage, and then phone usage. To get a better understanding of the drop I compared the week-to-week percent change.

- After plotting them all next to the average percent change of all sources it stood out that tablets took the biggest hit on our favorite week, Jul. 28th - Aug. 4th with a 30.8% decrease in usage. Phone usage followed on that same week with a 16.5% decrease in usage.

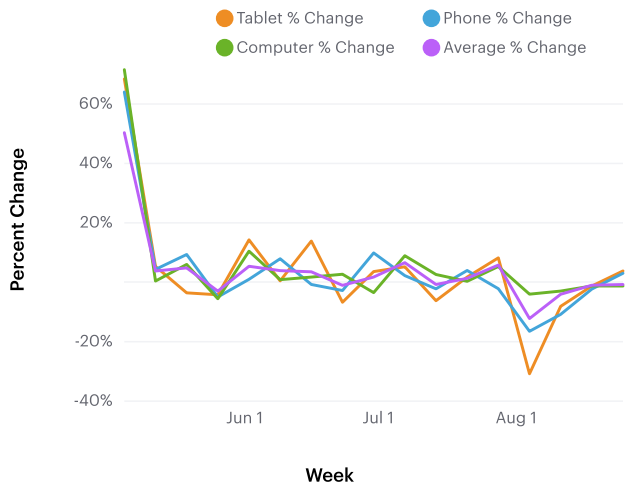
Weekly Active Users Sources



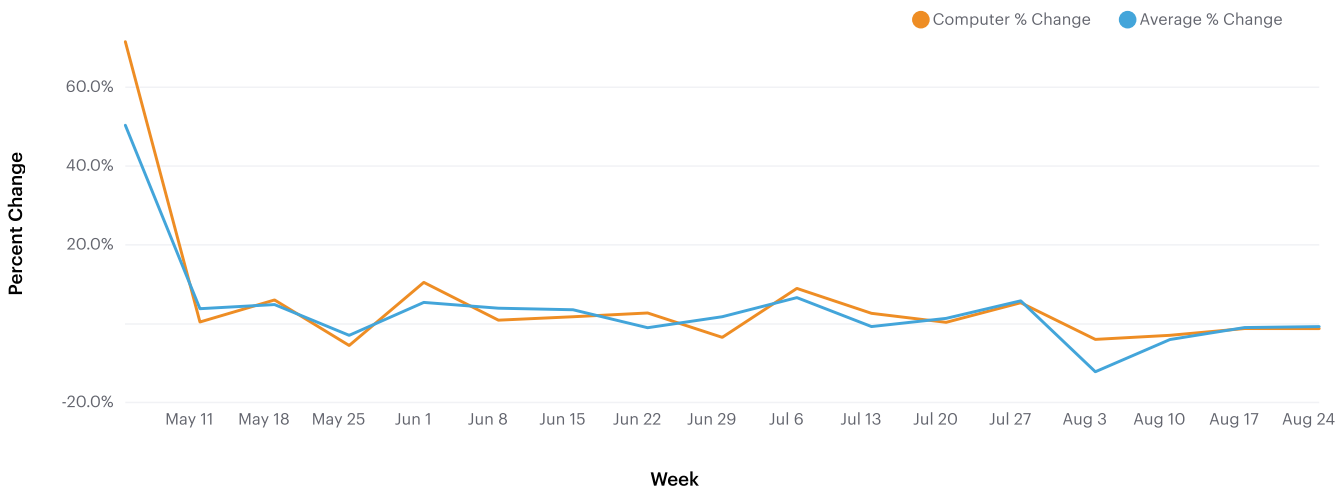
Weekly Percent Change (Bar Chart)



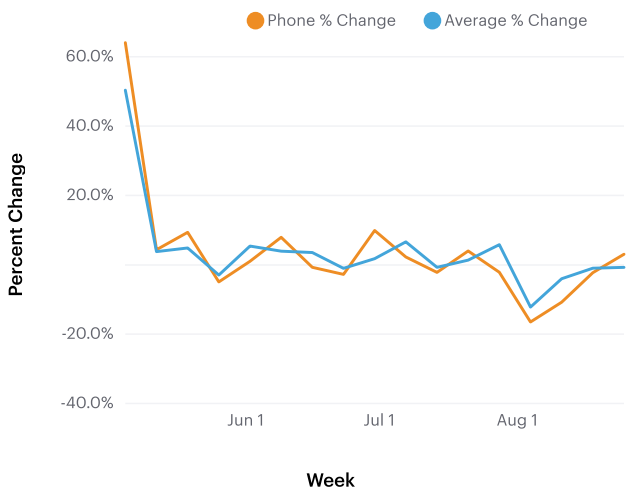
Weekly Percent Change



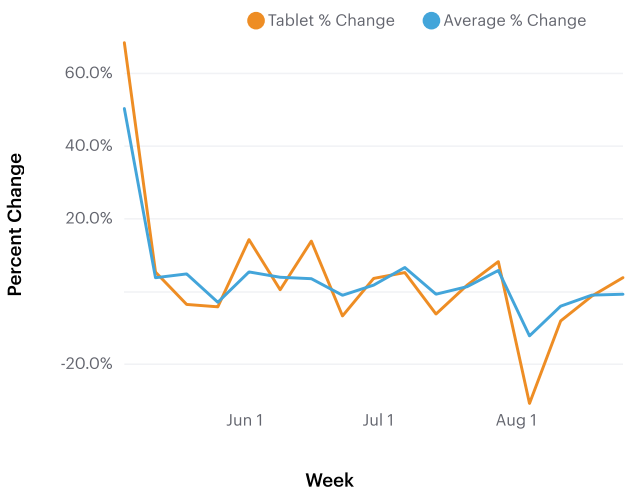
Computer Weekly Percent Change



Phone Weekly Percent Change



Tablet Weekly Percent Change



Conclusion

The events that occurred on the week of Jul. 28th - Aug. 4th significantly decreased Yammer's an already low mobile usage.

Website

If I was at Yammer I would look to see if any updates to the website are affecting our mobile site's overall traffic and engagement. Mobile sites are hypersensitive to changes compared to desktop sites. Any small change could render the site incompatible or difficult to use with a variety of phones and tablets.

Mobile App

I would then look at when we updated our app and find the app data to see if we should run more app re-marketing vs email re-engagements. There is this theory that people only heavily use only 3-5 of the apps on their phone (http://fortune.com/2015/09/24/apps-smartphone-facebook/), so I would work with the product team to develop a push notification campaign that get's users engaged again. The campaign could send a notification when a post is *trending*, or getting an increasing amount likes to play off of the users FOMO (Fear Of Missing Out) around the office.

Prevention

More importantly, I would help develop a prevention plan so this scare never happens again. I would consistently survey old users with low engagement. In order to provide different levels for understanding the user's experience there would be tiers of survey intensity (e.g. scaled ratings, reviews, one-on-one UX interviews, focus groups). Also before any major changes to the site and app, invest in UX research for the mobile interface and desktop.

Best Practices

I would also figure out what caused the initial spike on the week of April 28th - May 5th. Analyzing a successful campaign is equally important as analyzing a failure. After identifying what caused it I would focus on repurposing it for future campaigns.