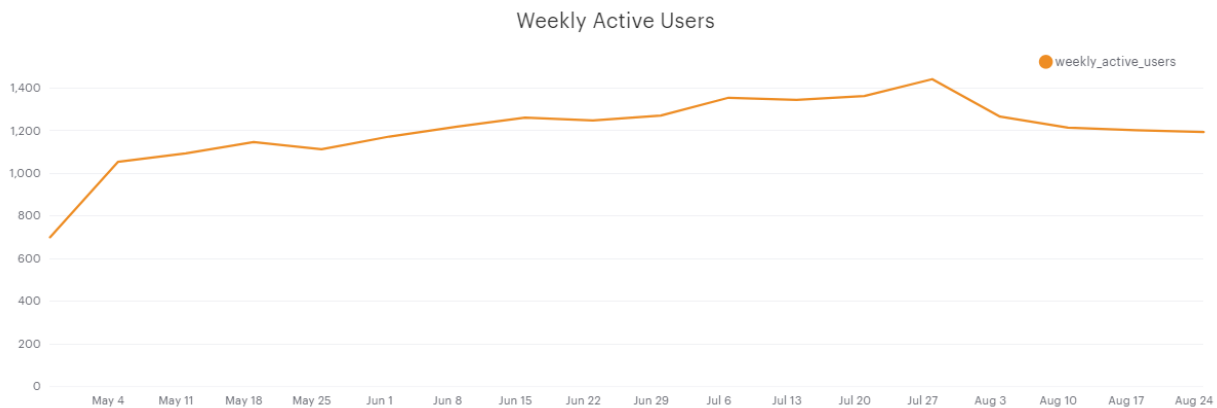


Yammer Project: Investigating Drop in User Engagement

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Yammer is a social network for communicating with coworkers (<https://www.yammer.com/>). In September 2, 2014, a Tuesday morning, the Product Team Head came to me to ask me what I think about the latest activity on user engagement dashboard. Using SQL, I looked at weekly active users and saw a dip from July 28, 2014 to August 25, 2015.



Here is my hypothesis of the possible reasons for the dip:

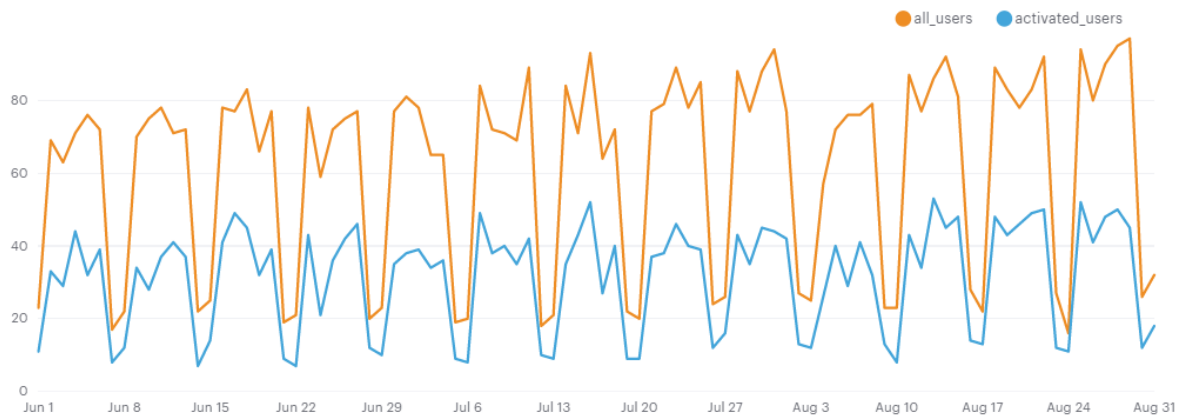
1. Clients moved to a competitor
2. Broken feature that wasn't fixed immediately
3. Email marketing not as effective as before

Here are how I plan to test the hypothesis above

1. Check user growth
 - a. Daily user growth
 - b. Weekly user growth of all users
 - c. Weekly engagement of users of different age (age=how long they are using yammer)
2. Check for Broken features
 - a. Weekly engagement by device category
 - b. Weekly engagement by device brand
3. Check for email marketing results
 - a. Weekly email action

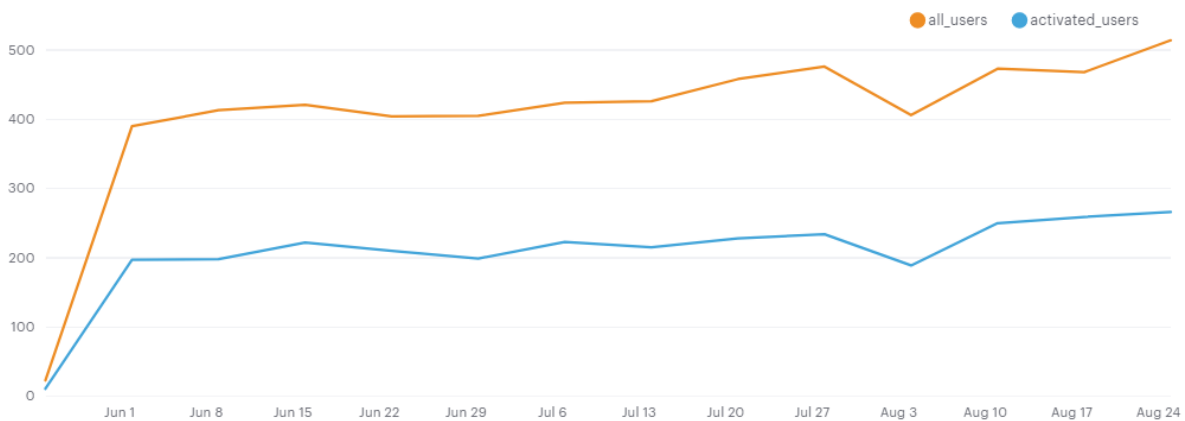
USER GROWTH

Daily Signups



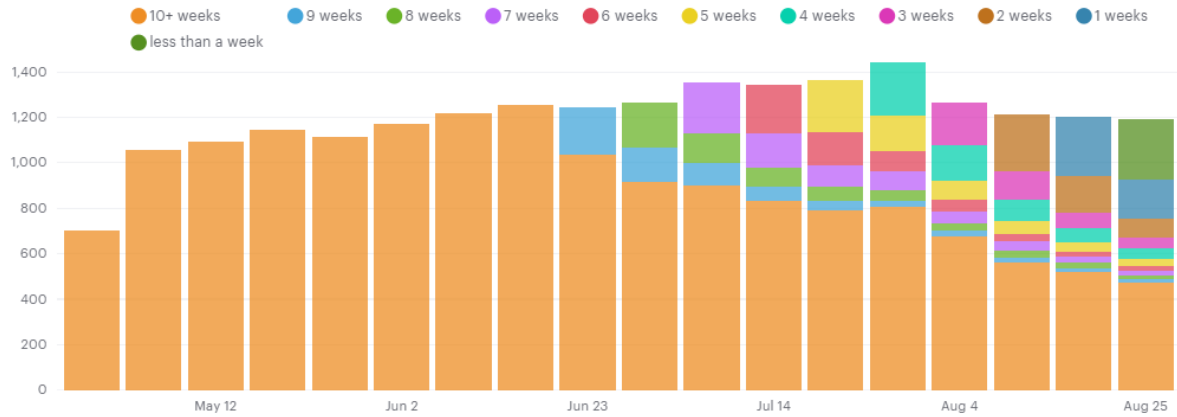
Daily growth of Yammer users seems to be normal from June 1 to August 31, 2014. This can imply that the dip may be coming from older users. Looking at the weekly sign ups the drop of users and active users is seen between the weeks of July 27 to Aug 10.

Weekly Signups



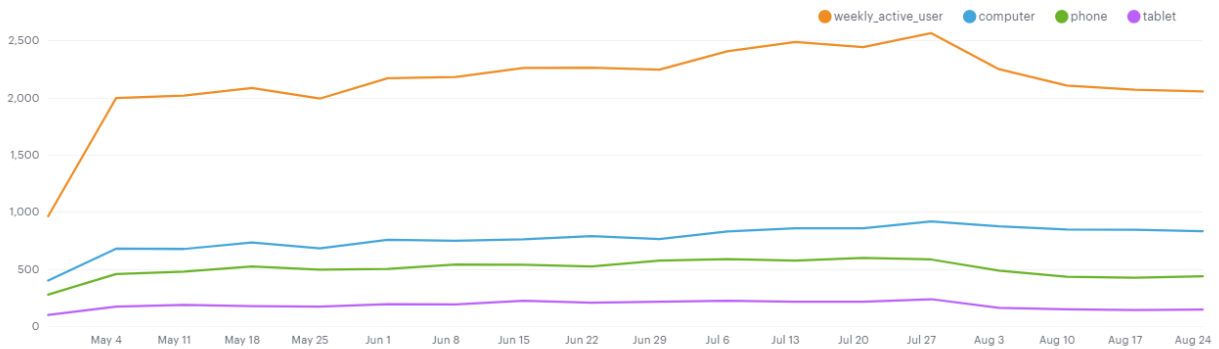
Engagement by User Cohorts graph shows that majority of active users are over 10 weeks old in which cohort also have a decrease in user engagement that started from last week of June to the end of August. This confirms that drop in user engagement is coming from older users specifically users that are over 10 weeks old.

Engagement by User Age Cohort

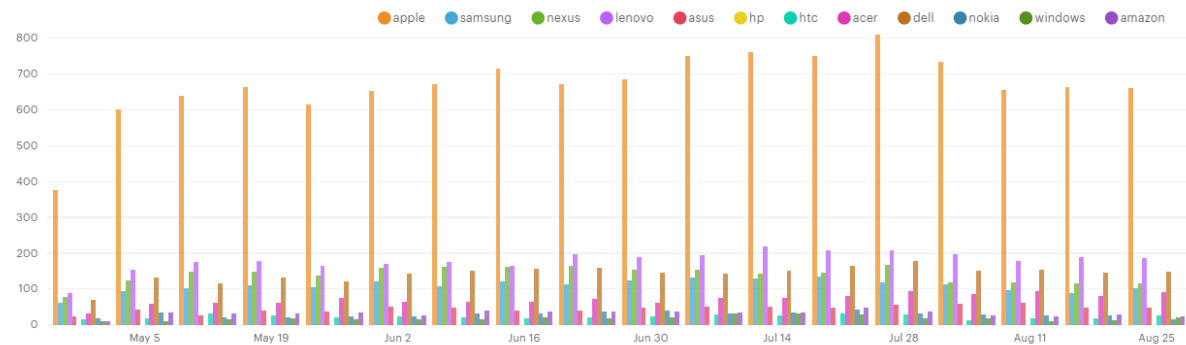


BROKEN FEATURES

Weekly Engagement by Device Category



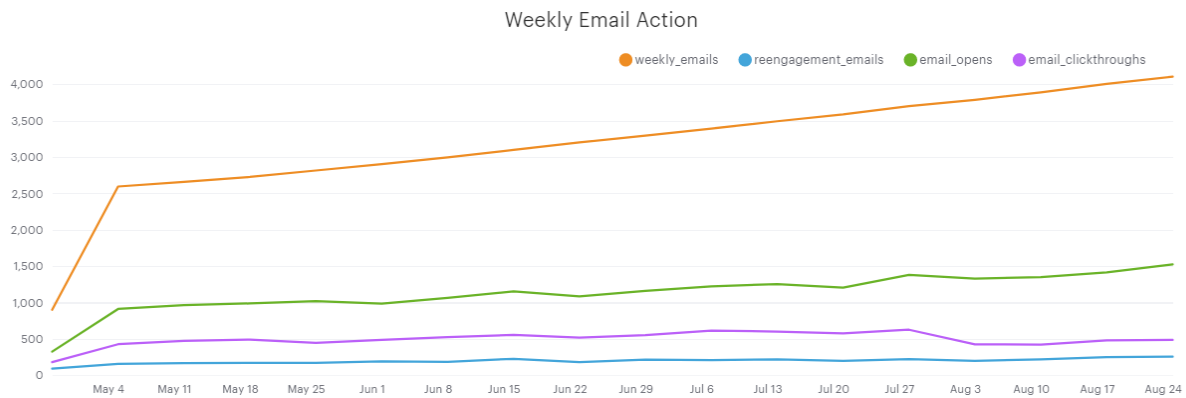
Weekly Engagement by Device Brand



Looking at the Weekly Engagement by Device Category graph, steepest drop in user engagement is observed on phone app users first and tablet app the second. To check if device brand affected user engagement I graphed Weekly Engagement by Device Brand and it reveals that most users has apple

brand devices and that there is a dip of engagement of apple users from the last week of July to the first week of August 2014.

EMAIL ACTION



To check if email action has something to do with the dip of user engagement a graph of Weekly Email Action was made. This graph shows that there is a steep dip of users that click through email links from the last week of June to the first week of August 2014.

CONCLUSIONS

To sum it up, daily growth of yammer users is normal, weekly growth of all users and active users drop between the last week of July to the second week of August. This drop in active users is attributed to yammer users that are over 10 weeks old. The dip in user engagement is also attributed to the possibility of broken features in the phone app first and the tablet app second. Most users have apple devices it will make sense checking broken features on apple devices app first. Lastly email click through dropped from last week of July to first week of August 2014 contributed to the dropped user engagement and can be connected to the dropped of engagement using the apple phone app and tablet app.

RECOMMENDATIONS

My recommendation to the Head of Product is to start with checking broken features on apple devices phone app first and then tablet app since most user have apple devices and a steep drop of user engagement is detected on phone apps first and tablet apps second.

Checking email click throughs must be investigated further if it is connected to the broken feature of phone app or tablet app or if the email click through links are just not working.

Lastly, I will recommend preventive measures on drop on user engagement such as checking and making sure that all features of application for all devices are working before launching and emailing anything to the existing users.

All SQL queries and graphs are done using mode analytics and can be found in this link below

<https://modeanalytics.com/wohunmeilli/reports/030dcd20bcfc>