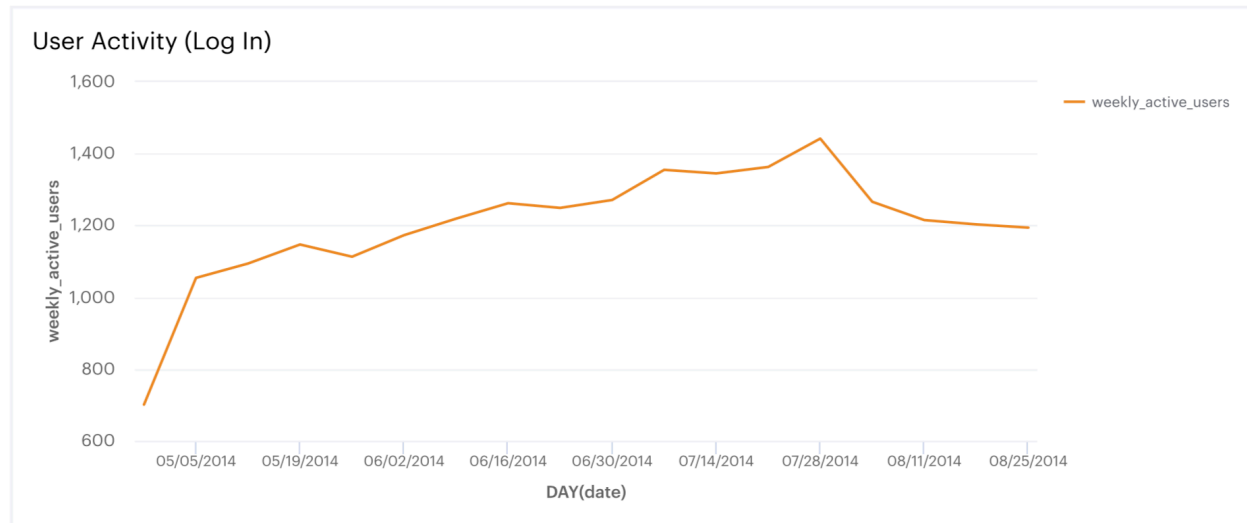


MODE SQL Analytics Case Study

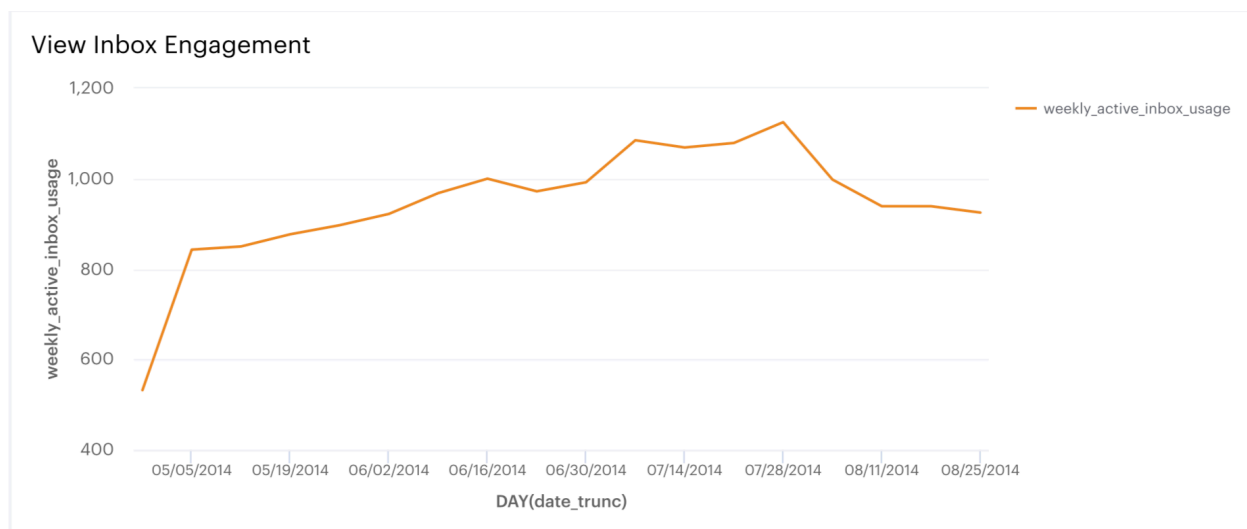
Yammer, a social network for communicating with coworkers, noticed a drop in user engagement on Tuesday morning, September 2, 2014 illustrated below .



“The above chart shows the number of engaged users each week. Yammer defines engagement as having made some type of server call by interacting with the product (shown in the data as events of type “engagement”). Any point in this chart can be interpreted as “the number of users who logged at least one engagement event during the week starting on that date.”-Mode Case study

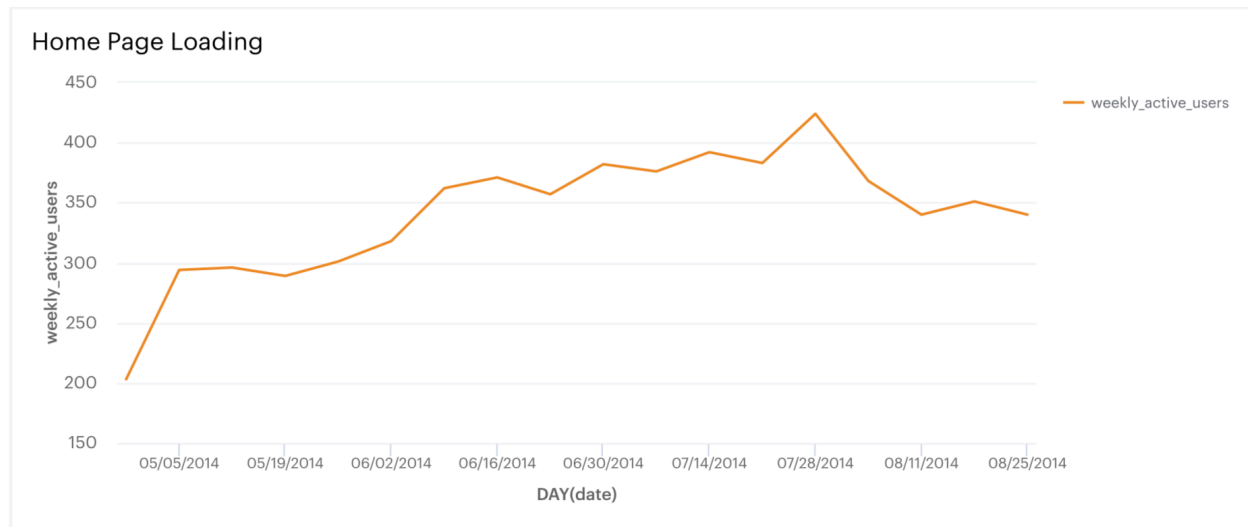
We will look at several sources to find the cause. First, we will look if there is a coding issue. Second, we will see if a local regional issue such as censorship by a country or localized code failure is to blame. Third, we will look to see if slowing growth is the fault. Fourth, if older user disengagement is increasing.

We will begin the investigation to see if there is a code issue with logging in, accessing the mailbox, or loading the home page. Notice above that some users did log in so we can rule out a “log in” code failure. Looking at the mailbox usage below, we see again that some users did use the application so it seems to be working properly.



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The same is true for home page access highlighted below. It seems that the major features are performing appropriately in across the broad platform.



If not a broad coding error maybe one related to the country the user is operating from; a firewall or censorship issue. Looking at a pivot table we see that through the numbers do change there is some activity in each country. Thus, we can rule out a country based issue.

	date_trunc		
	2014-07-28T00:00:00.000Z	2014-08-04T00:00:00.000Z	Totals
location			
Argentina	1	4	10
Australia	4	10	28
Austria		1	3
Belgium	1	2	6
Brazil	8	9	34
Canada	4	10	20
Chile	1	1	2
Colombia	5	6	17
Denmark	3	4	13
Egypt	3	1	6
France	7	12	39
Germany	16	23	68

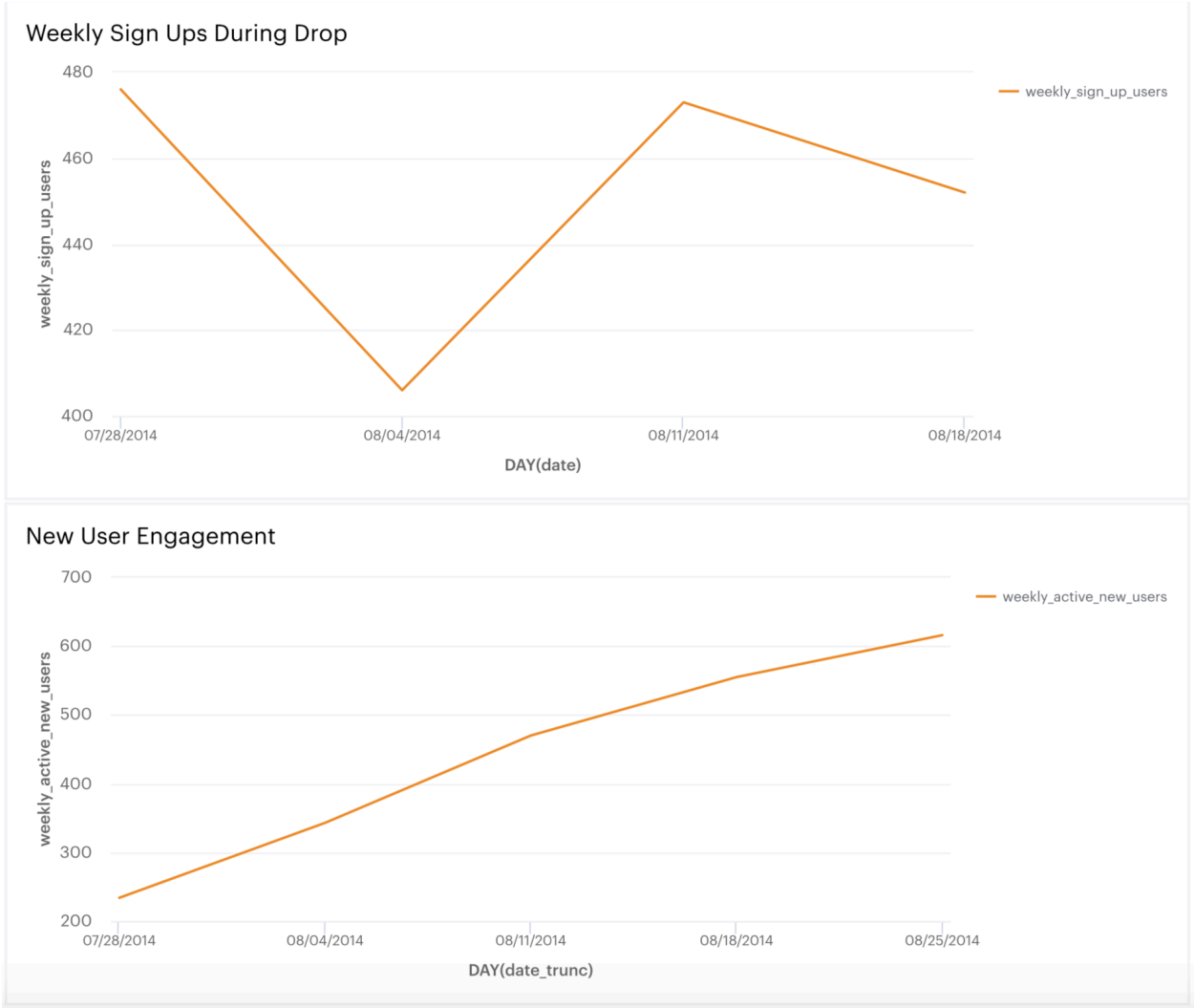
MODE SQL Analytics Case Study

Greece	1	3	7
Hong Kong		1	4
India	5	5	24
Indonesia	2	3	15
Iran	3	4	10
Iraq	4	2	9
Ireland		2	2
Israel	1	2	3
Italy	7	12	19
Japan	22	28	50
Korea	7	10	17
Malaysia	1	2	3
Mexico	2	6	8
Netherlands	5	7	12
Nigeria	2	1	3
Norway	1	3	4
Philippines		2	2
Poland	3	3	6
Portugal		1	1
Russia	10	11	21
Saudi Arabia	2	5	7
Singapore	1	2	3
South Africa	4	4	8
Spain	5	3	8
Sweden	1	6	7
Switzerland	3	4	7
Taiwan	1	3	4
Thailand	1	1	2
Turkey	3	7	10
United Arab Emirates		1	1
United Kingdom	16	20	36
United States	68	95	163

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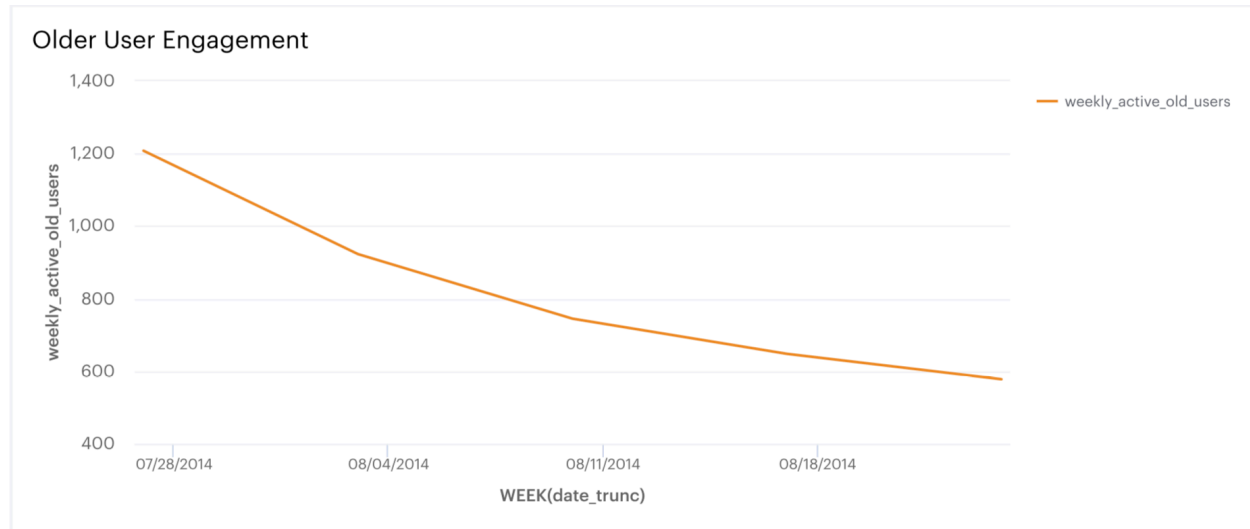
Venezuela		1	1
Totals	234	343	723

The third investigative point, a growth issue does not look promising either. New user sign up, through fluctuating, does not seem to be driving the down trend. In fact, new user engagement is up for those customers who joined beginning with and after the dip.

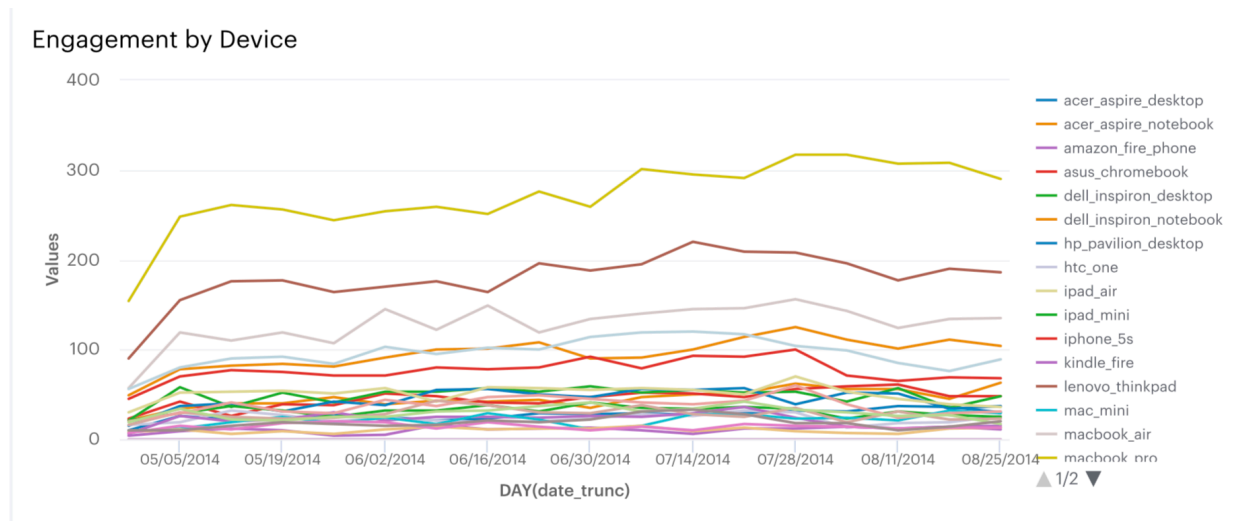


MODE SQL Analytics Case Study

The fourth point of investigation, older user engagement, is more enlightening, and seems to be driving the overall downtrend. This rises several new questions such



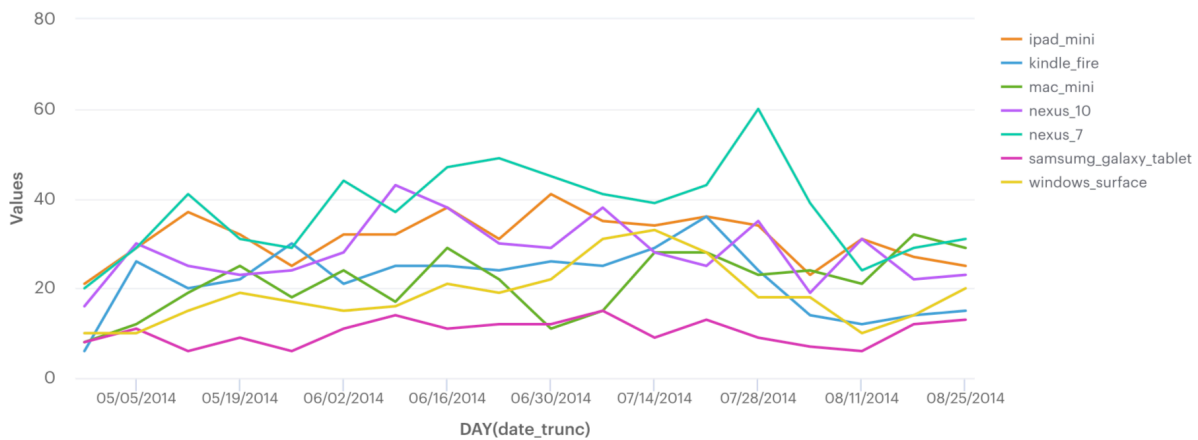
as which older users (computer vs. phone vs. tablet), and is there an issue with Yammer user reach out (weekly digest email or reengagement email)? The overall device usage mimics the overall trend of user disengagement, through the graph is a bit crowded.



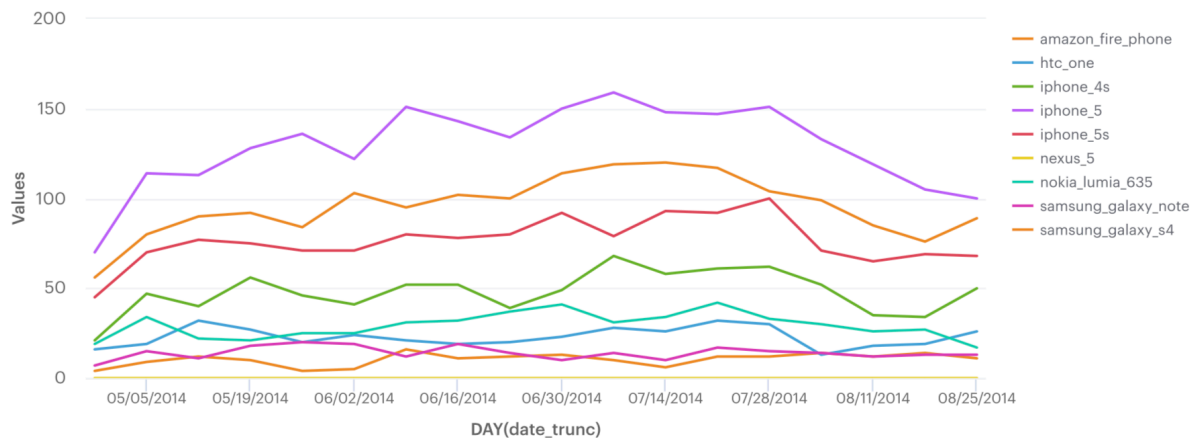
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Below is a better look at the individual categories. Tablets and phones users see the largest dip but all categories see a downward trend following July 28th.

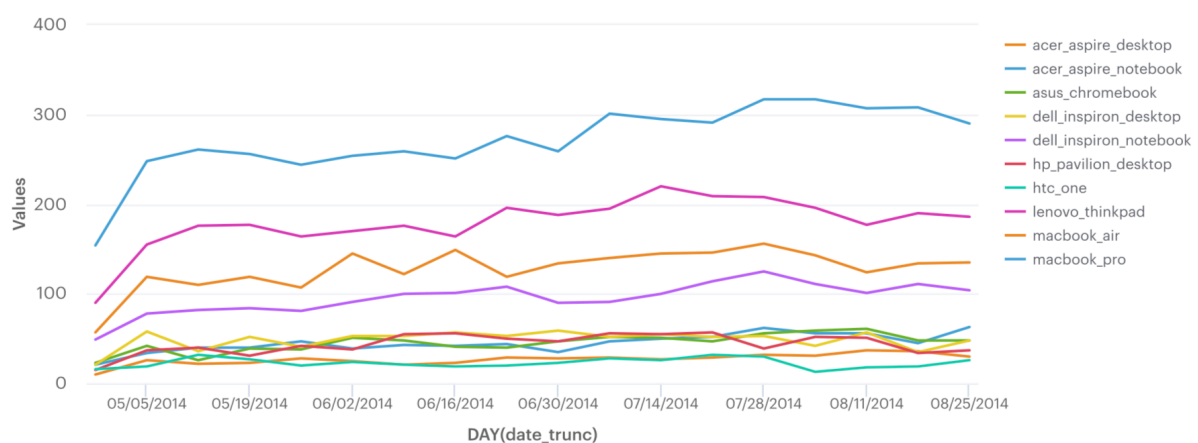
Tablets Engagement by Device



Phone Engagement by Device

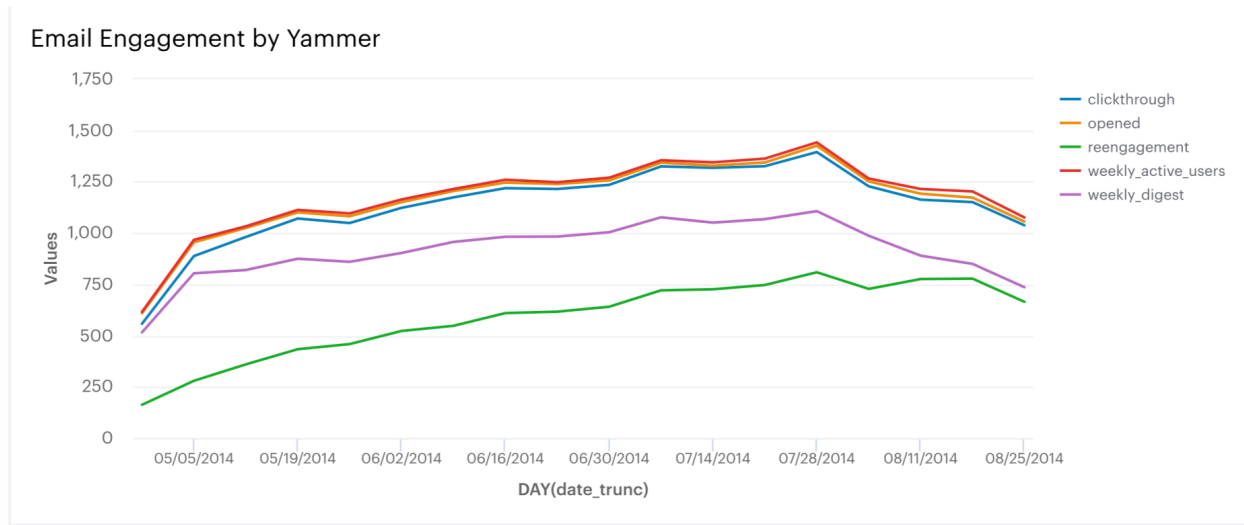


Computer Engagement by Device

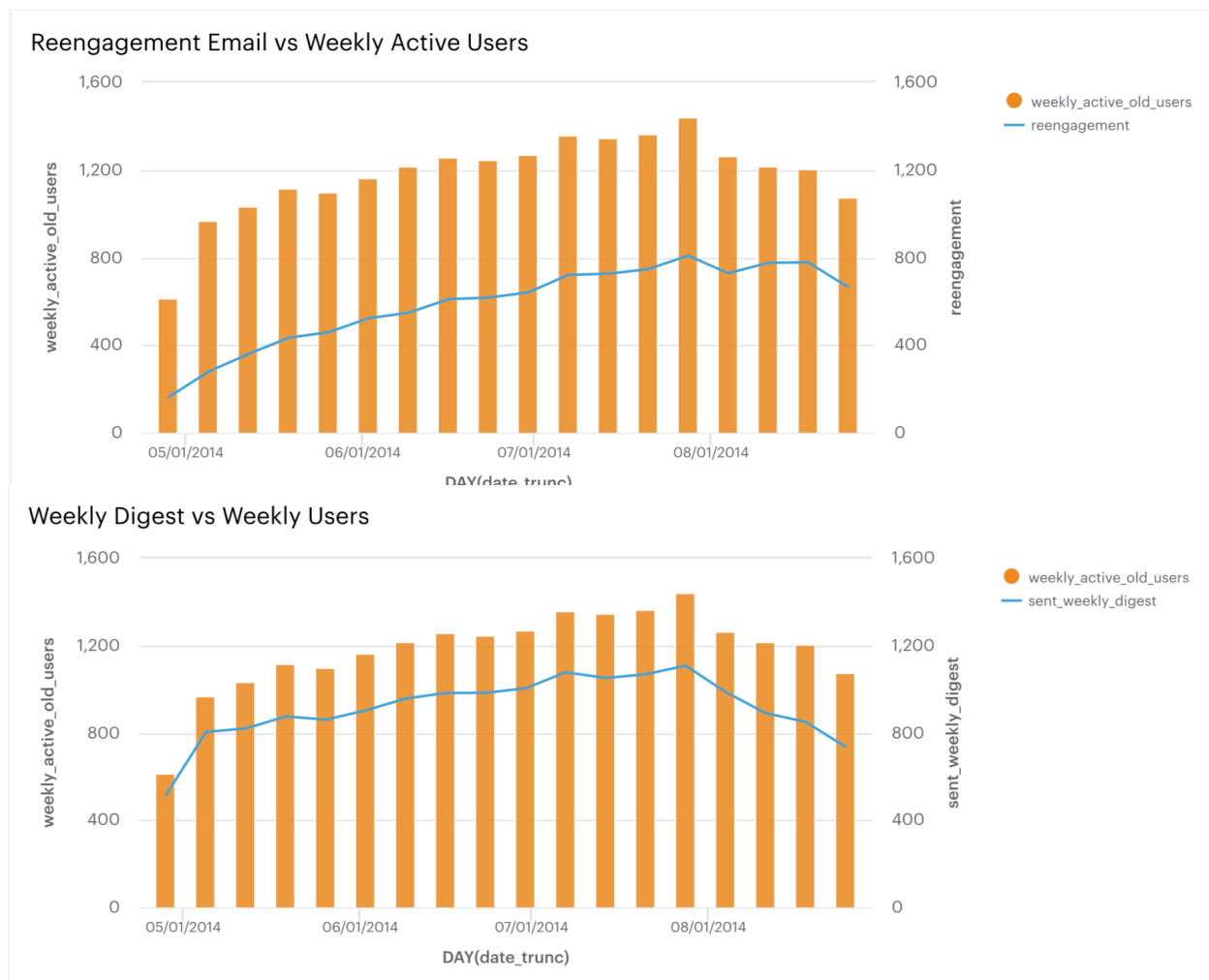


MODE SQL Analytics Case Study

The final point of inquiry, adds much more illumination to the problem. Yammer's activity to reengage users through a weekly digest email or reengagement email seems to have dropped. This graph highlights the effectiveness of these two emails to drive



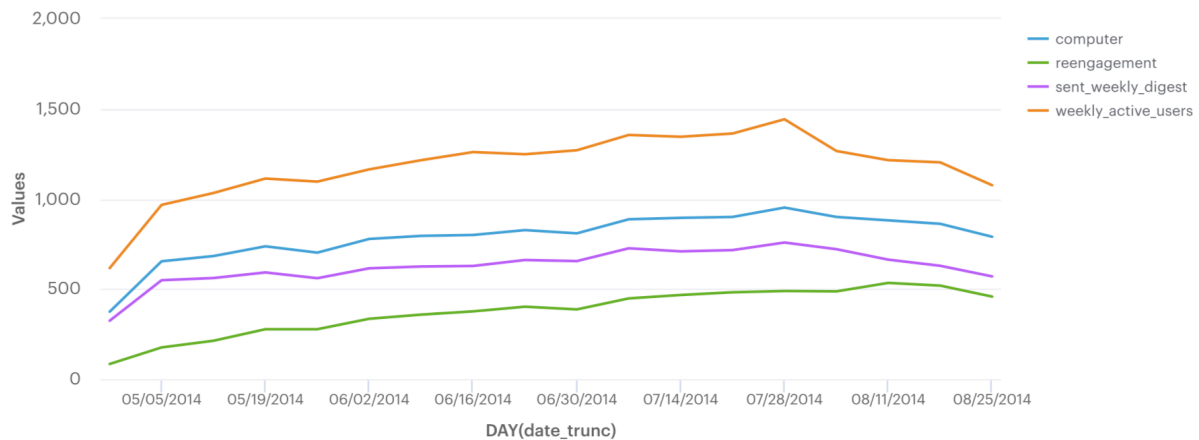
customer engagement. Notice that the weekly digest (purple line) mimics the downward trend closely. Plotted separately, the weekly digest email is in steep decline. The reengagement email recovered but is falling once again. The marketing or email team lead should be notified.



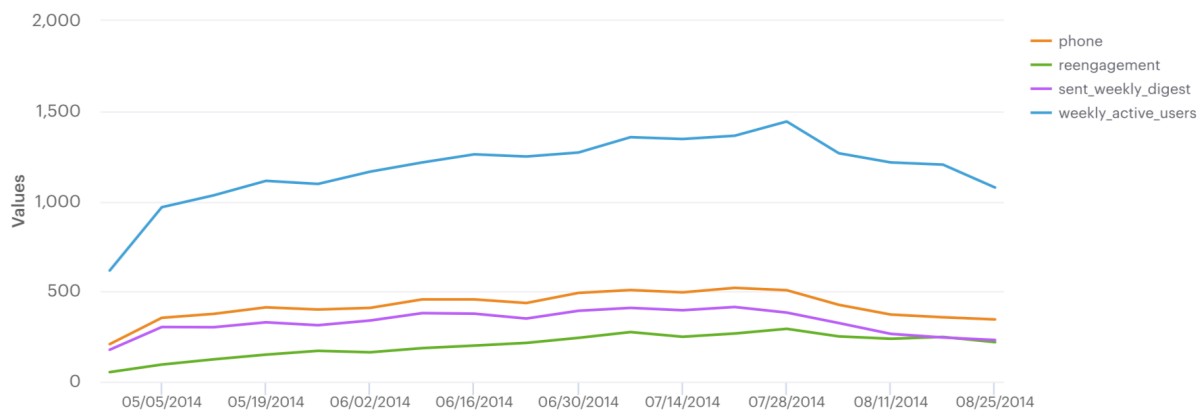
MODE SQL Analytics Case Study

A quick look at how these emails affect each device implies that these emails have a greater affect on computers and phones than tablets. Recall that tablets saw a large disengagement drop, however, they do have the smallest user base. Therefore, the computer and phone older users disengagement driven by the drop in emails from Yammer is driving the overall drop in user activity. Further investigation into the drop in tablet older user disengagement would be warranted.

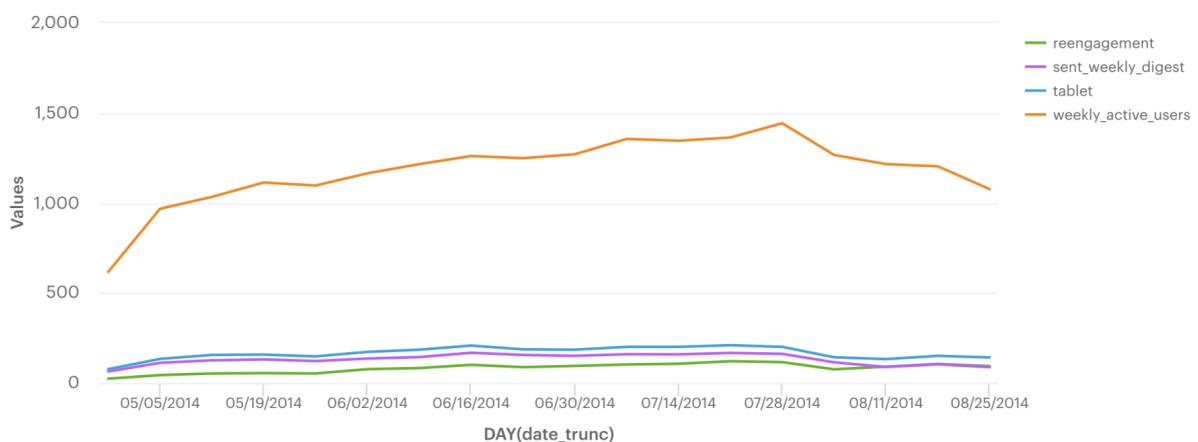
Computer Regagement



Phone Reengagement



Tablet Reengagement



MODE SQL Analytics Case Study

I would recommend Yammer look into why both the reengagement email and the weekly digest email are decreasing. Is there an issue with these products? Has the marketing team/engagement team changed these products. Many questions still persist, however, there is a strong indication that Yammer email marketing is driving the downtrend.