

EXHIBIT 152

UNREDACTED VERSION OF DOCUMENT SOUGHT TO BE LODGED UNDER SEAL

CONTENT PRODUCTION

NARRATIVE AND NEXT STEPS

**People are sharing less than they did in 2012 –
but more importantly they are sharing
drastically different types of content**

A NOTE ABOUT 2013

- In late 2012 we did some extreme stuff to push re-shares – significantly changing the composition of content and feed
- We undid a bunch (but not all) of our work in the first half of 2013 but YoY re-shares numbers are still very funky
- To avoid being misled by this funk, we're going to use 2012 as our reference point

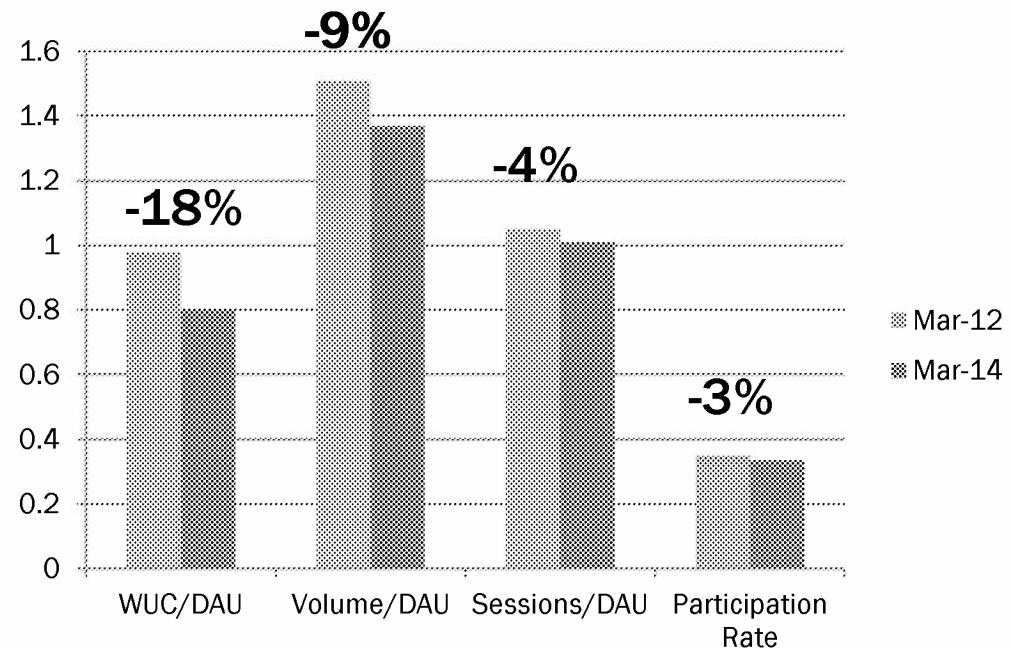
SPEAKER NOTES FOR SLIDE 3

Admin visitation, diversity of producers,
Sometimes your metrics don't capture the intent of what you want to do

OVERALL WE'RE FALLING – BUT WE THINK WE KNOW HOW TO RECOVER

Compared to 2012...

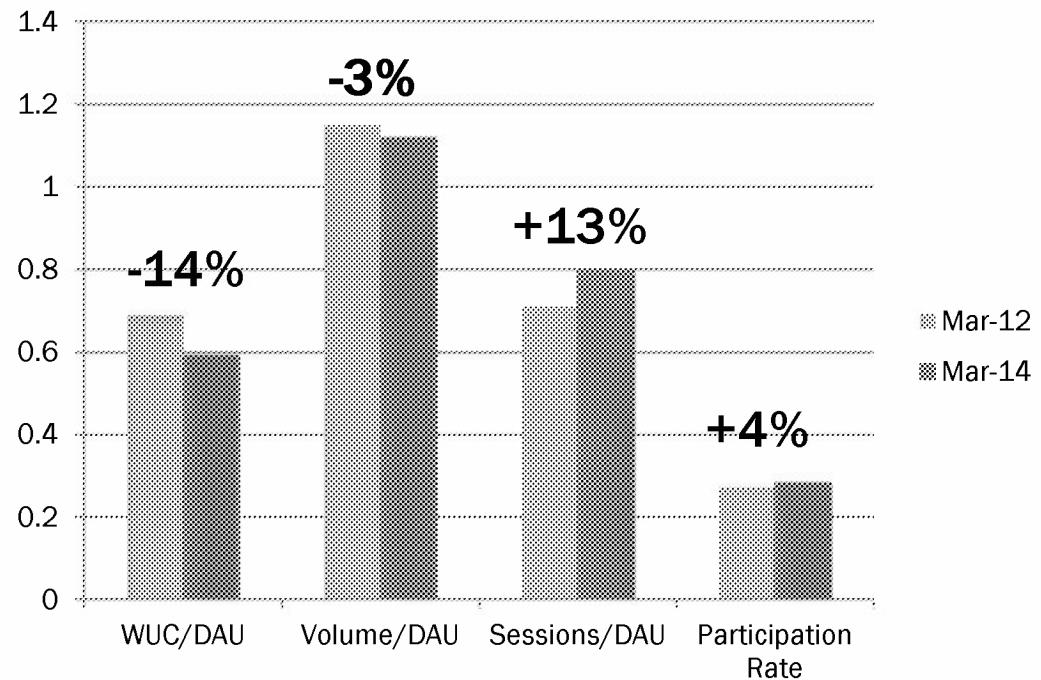
- WUC is **-18%**
- Volume is **-9%**
- Sharing sessions are **-4%**
- Participation rate is **-3%**
- People are sharing dramatically different types of content



IF WE JUST LOOK AT UNDIRECTED SHARING THINGS LOOK BETTER

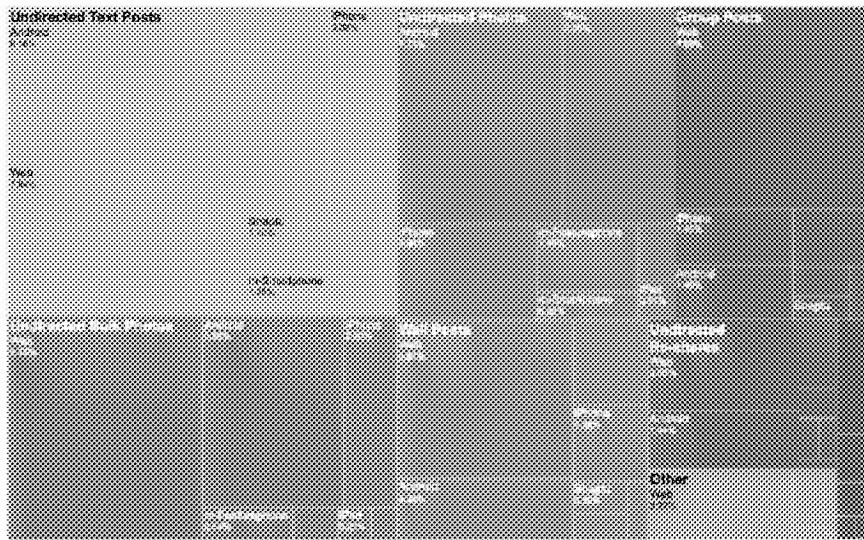
Compared to 2012...

- WUC is **-14%**
- Volume is **-3%**
- Sharing sessions are **+13%**
- Participation rate is **+4%**
- People are sharing dramatically different types of content

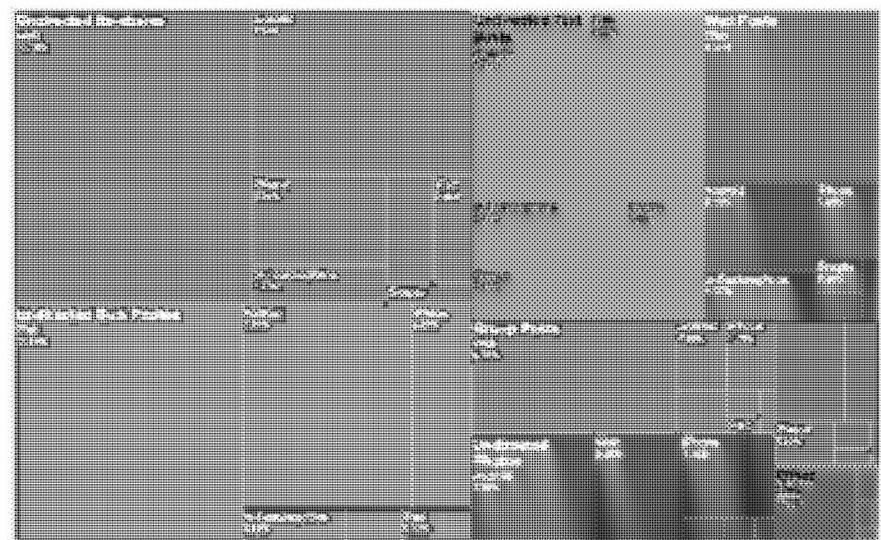


CONTENT TYPE OVERVIEW: WUC VS. VOLUME

2014 WUC



2014 Volume

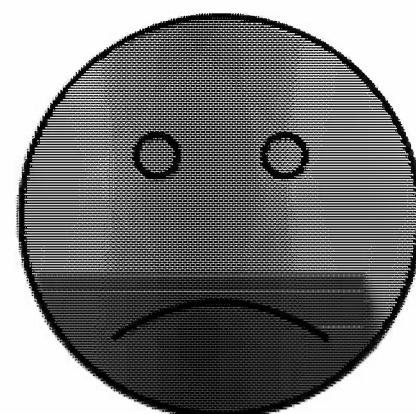
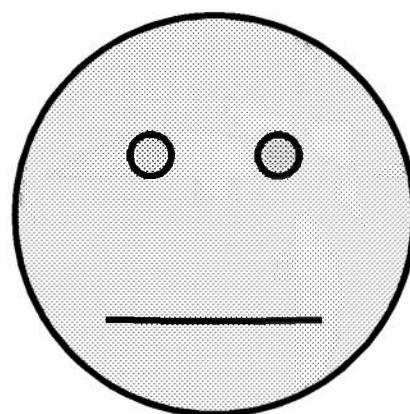
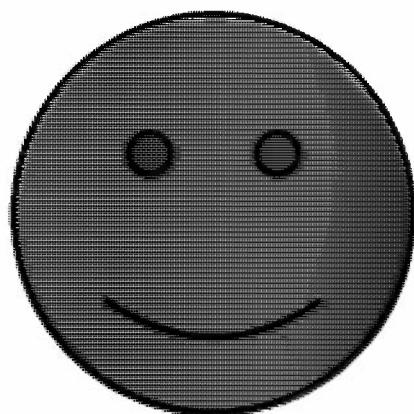


- Re-shares and bulk photos are smaller levers for WUC
- Text posts and single photos are much bigger lever for WUC

SPEAKER NOTES FOR SLIDE 6

Photo Container is counted as a text post and will be considered later.

THE GOOD, THE OKAY, AND THE BAD



**LET'S WALK THROUGH EACH MAJOR
CONTENT TYPE FROM 😞 TO 😊 ...**

CONTENT TYPE WILL BE HERE

Status

- What are the hard numbers relative to the content type itself?

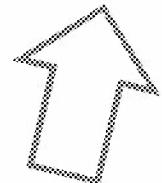
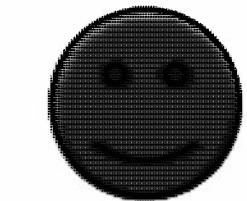
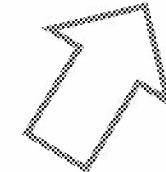
Reason(s)

- Why are the numbers what they are?

Next step(s)

- What are we going to be doing about it?

WUC: +XX%
Volume: +YY%

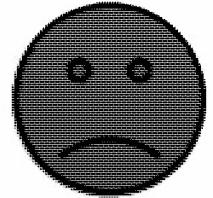


What is the impact of this content type to topline change from 2012 to 2014

Good, okay or bad?

WALL POSTS

WUC: -10%
Volume: -9%



Status

- Non-birthday in terminal decline: **-63% since 2012**
- Birthday falling: **-10% since 2012**

Reasons

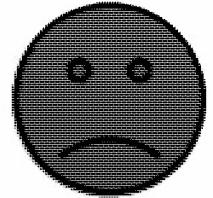
- Fewer profile visits and wall posts per visit due to mobile migration and Timeline
- Mobile birthday wall post prompts less effective or missing
- New users use wall posts less than old users (no longer a core part of first experience)

Next steps

- Profile team working on performance wins to drive Profile visits
- People tab will drive visits to Profile and increase to Wall posts
- Improve birthday feed units in feed and add context rows on Profile
- (?) Increase prominence of Composer on Profile (Profile team very against)

UNDIRECTED TEXT POSTS

WUC: -7%
Volume: -5%



Status

- **Tanking: -26% since 2012**

Reason(s)

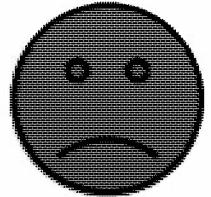
- No product team focused on increasing (or defending) text posts
- Cannibalized by re-shares – both are influenced by what you see in feed
- Hurt by migration to phones with cameras / ecosystem may be shrinking
- Zero rating turned off by Telkomsel led to 25% drop in mFeature text posts (~1% topline)

Next step(s)

- Use feed to get some more text posts (sell re-shares if we have to)
- Muse in-feed prompt (or inline posting) based on neighboring content (text posts highly influenced by what you read in feed)
- Anything we can do to push Internet.org along?

UNDIRECTED BULK PHOTOS

WUC: -3%
Volume: -9%



Status

- **Falling fast: -29% since 2012**

Reason(s)

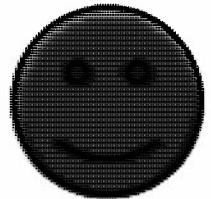
- **Mobile migration means fewer photo albums**
- **Team focused on basic mobile use cases rather than bulk tools**

Next step(s)

- **Make it easier and more reliable to select multiple photos (e.g. Simplepicker)**
- **Storytelling for albums and multi-photo posts (e.g. Snowflake and Underwood)**
- **Mobile “select all” photos based on time range and location**

UNDIRECTED SINGLE PHOTOS

WUC: +3%
Volume: +1%



Status

- Doing well: +11% since 2012

Reason

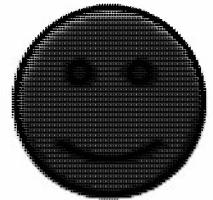
- Mobile migration leading to shifts in photo sharing behavior
- Ecosystem naturally growing (e.g. new use cases like selfies)
- Tons of product work

Next steps

- Stay on current path (e.g. Simplepicker)

UNDIRECTED RE-SHARES

WUC: +2%
Volume: +12%



Status

- Doing well: +66% since 2012

Reasons

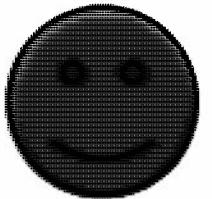
- Feed tweaks to promote for re-shares in 2013 (only partially rolled back)
- Introduced Share on mobile
- Possible that by optimizing feed for likes and comments we're also optimizing it for re-shares

Next steps

- Build good version of Share Now (similar to Paper's implementation)
- Sell some re-shares to buy text posts

GROUP

WUC: +1%
Volume: +1%



Status

- Doing well: +25% since 2012

Reasons

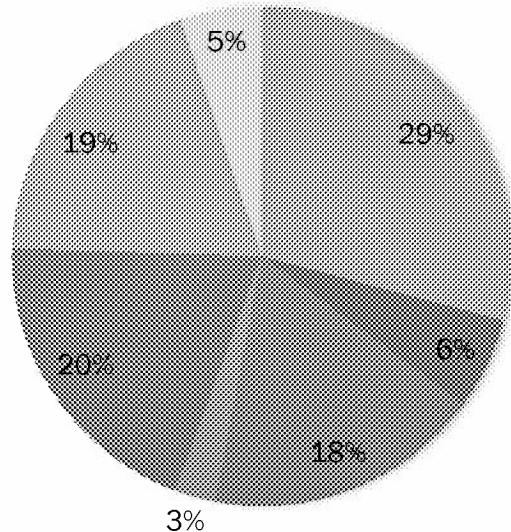
- Increase driven by introduction of single and multi-photo functionality

Next steps

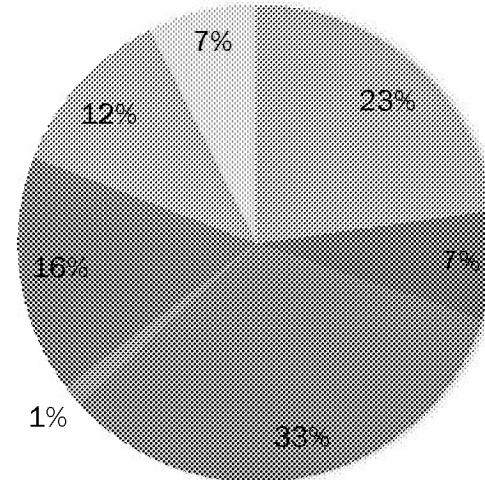
- Stay on current path (e.g. separate app, native Android, increase good groups)
- Make it easier to post to Groups via universal Composer

NET EFFECT – VOLUME COMPOSITION IS DRAMATICALLY DIFFERENT

2012



2014



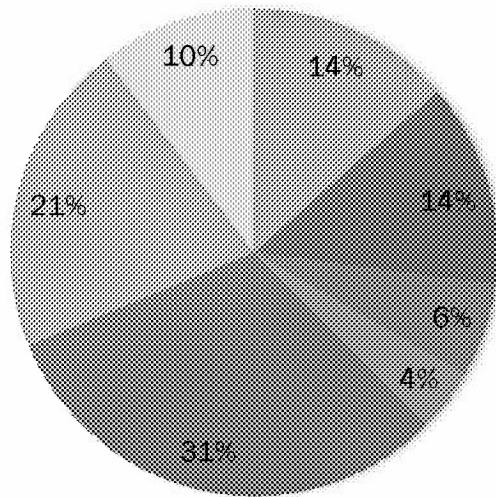
- Re-shares increase (18% to 33%)
- Bulk photos decrease (29% to 23%) as do Wall posts (19% to 12%) and text posts (20% to 16%)

SPEAKER NOTES FOR SLIDE 16

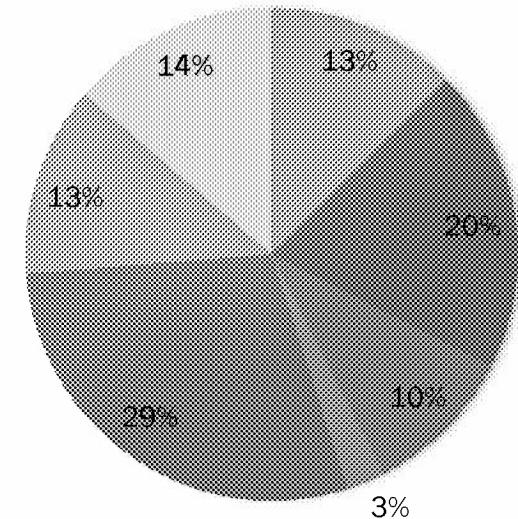
1. Big increase in re-shares (+0.18) cannibalizes text posts (-0.08)
2. Drop in batch photos (-0.13) not offset by marginally more single photos (+0.01)
3. Wall posts in terminal decline

WUC HAS SOME SHIFTS BUT NOT NEARLY AS DRAMATIC

2012



2014



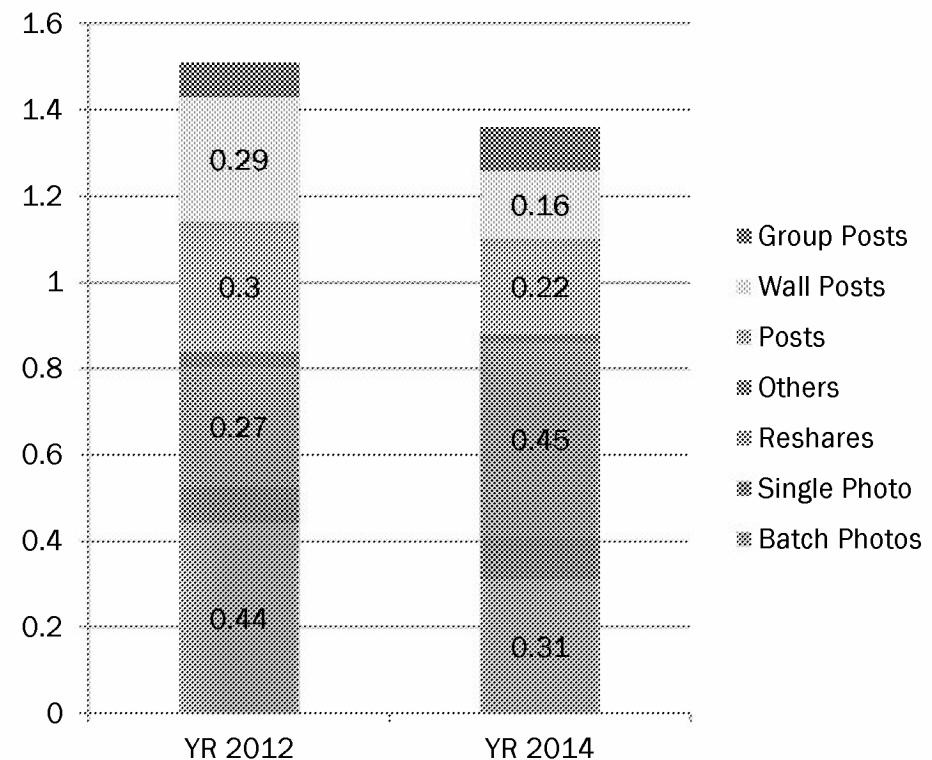
- **Wall posts decrease (21% to 13%) as do undirected text posts (31% to 29%)**
- **Single photos increase (14% to 20% as do re-shares (6% to 10%) and group posts (10% to 14%)**

SPEAKER NOTES FOR SLIDE 17

1. Big increase in re-shares (+0.18) cannibalizes text posts (-0.08)
2. Drop in batch photos (-0.13) not offset by marginally more single photos (+0.01)
3. Wall posts in terminal decline

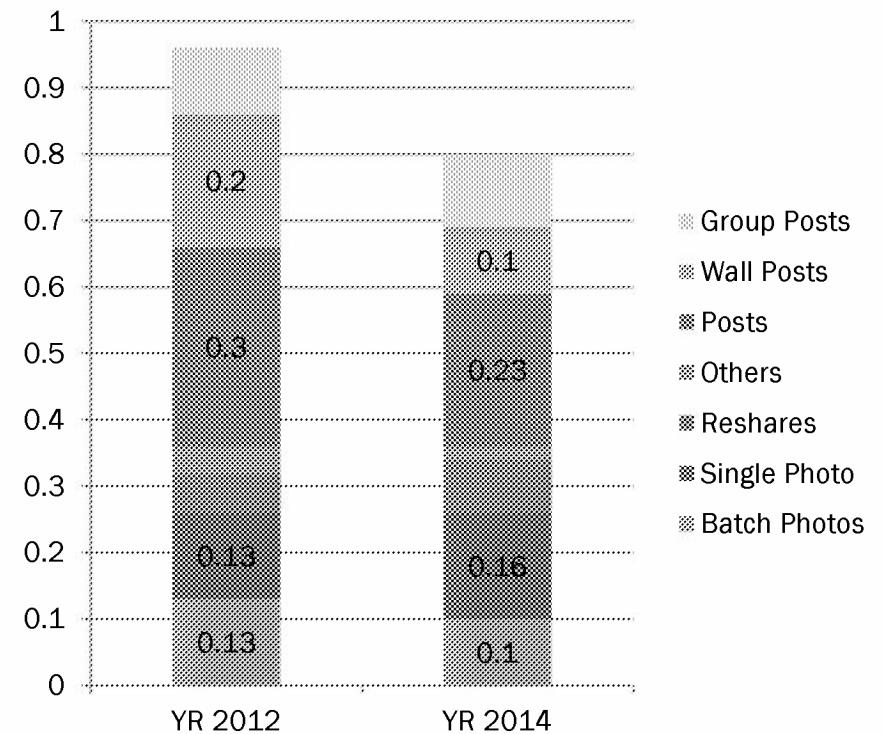
VOLUME SUMMARY – WE'RE FALLING BECAUSE...

- 1. Wall posts are falling due to mobile migration because of falling Profile visits, less prominent wall composer and no (or poor) in feed birthday unit**
- 2. Bulk photos are falling due to mobile migration (and we don't get enough single photos to compensate)**
- 3. Text posts are falling because they haven't been supported (or defended) by any team and have been cannibalized by re-shares and photos**



WUC SUMMARY – WE'RE FALLING BECAUSE...

- 1. Wall posts are falling due to mobile migration because of falling Profile visits, less prominent wall composer and no (or poor) in feed birthday unit**
- 2. Text posts are falling because they haven't been supported (or defended) by any team and have been cannibalized by re-shares and photos**



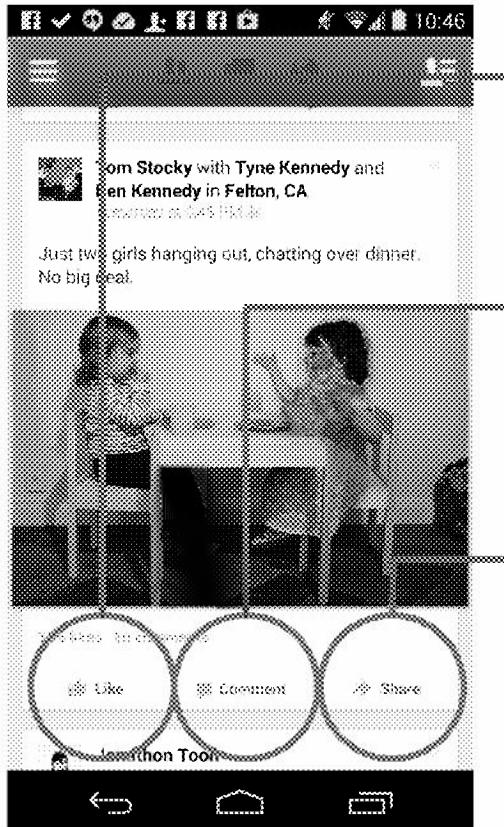
NEXT STEPS

Content Type	Topline WUC to 2012	What we're doing about it
Wall posts	-10%	<ul style="list-style-type: none"> Profile team working on performance wins to drive Profile visits People tab will drive visits to Profile and increase to Wall posts Improve birthday feed units in feed and add context rows on Profile (?) Increase prominence of Composer on Profile (Profile team very against)
Text posts	-7%	<ul style="list-style-type: none"> Use feed to get more text posts (sell re-shares if we must) Muse in-feed prompt (or inline posting) based on neighboring content Anything we can do to push Internet.org along?
Bulk photos	-3%	<ul style="list-style-type: none"> Make it easier and more reliable to select multiple photos (e.g. Simplepicker) Storytelling for albums and multi-photo posts (e.g. Snowflake and Underwood) Mobile “select all” photos based on time range and location
Single photos	+3%	<ul style="list-style-type: none"> Stay on current path (e.g. Simplepicker)
Re-shares	+2%	<ul style="list-style-type: none"> Build good version of Share Now and sell re-shares to buy text posts
Group	+1%	<ul style="list-style-type: none"> Stay on current path (e.g. separate app, native Android, increase good groups) Make it easier to post to Groups via universal Composer

APPENDIX

WHY ARE RE-SHARES UP?

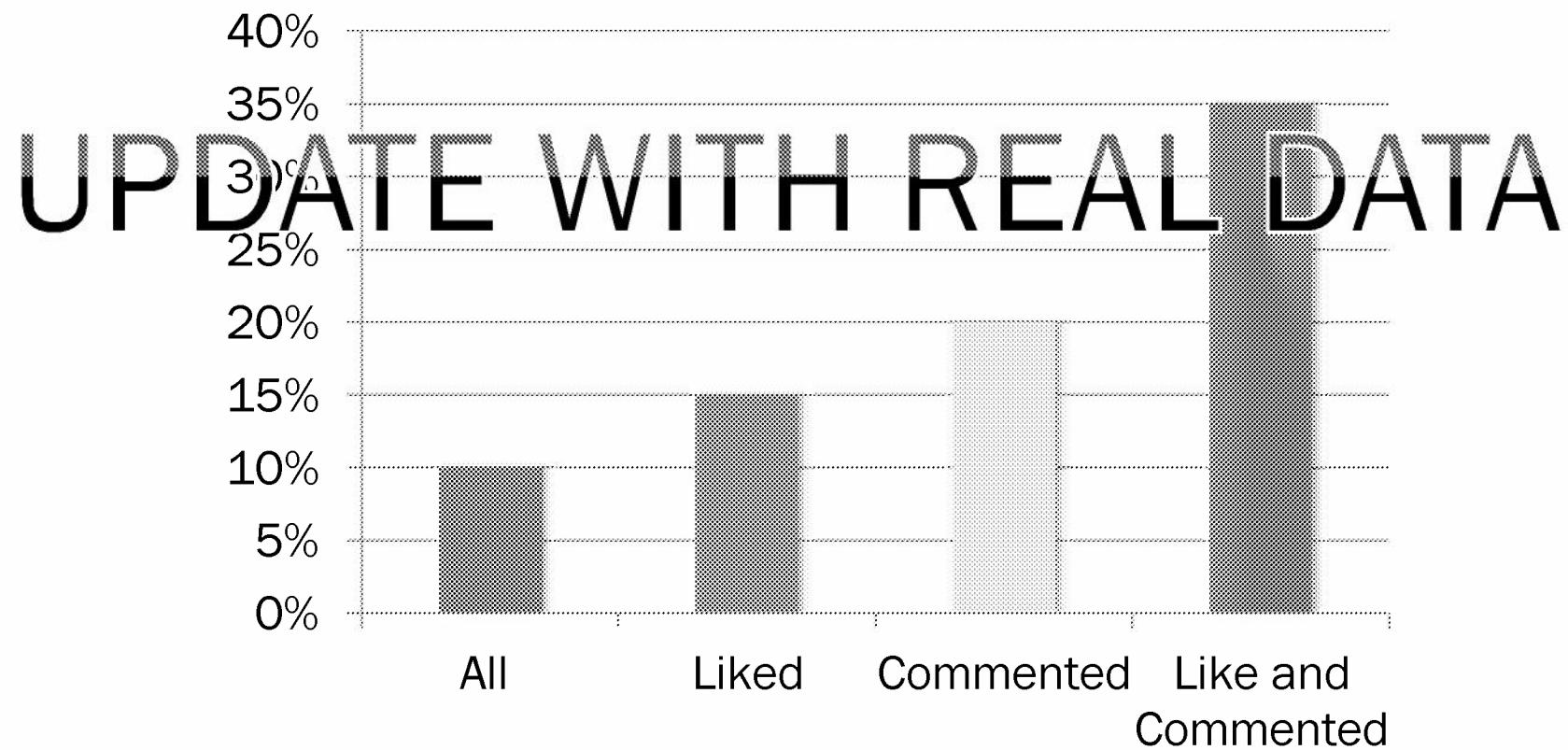
RE-SHARES ARE ANOTHER FORM OF ENGAGEMENT



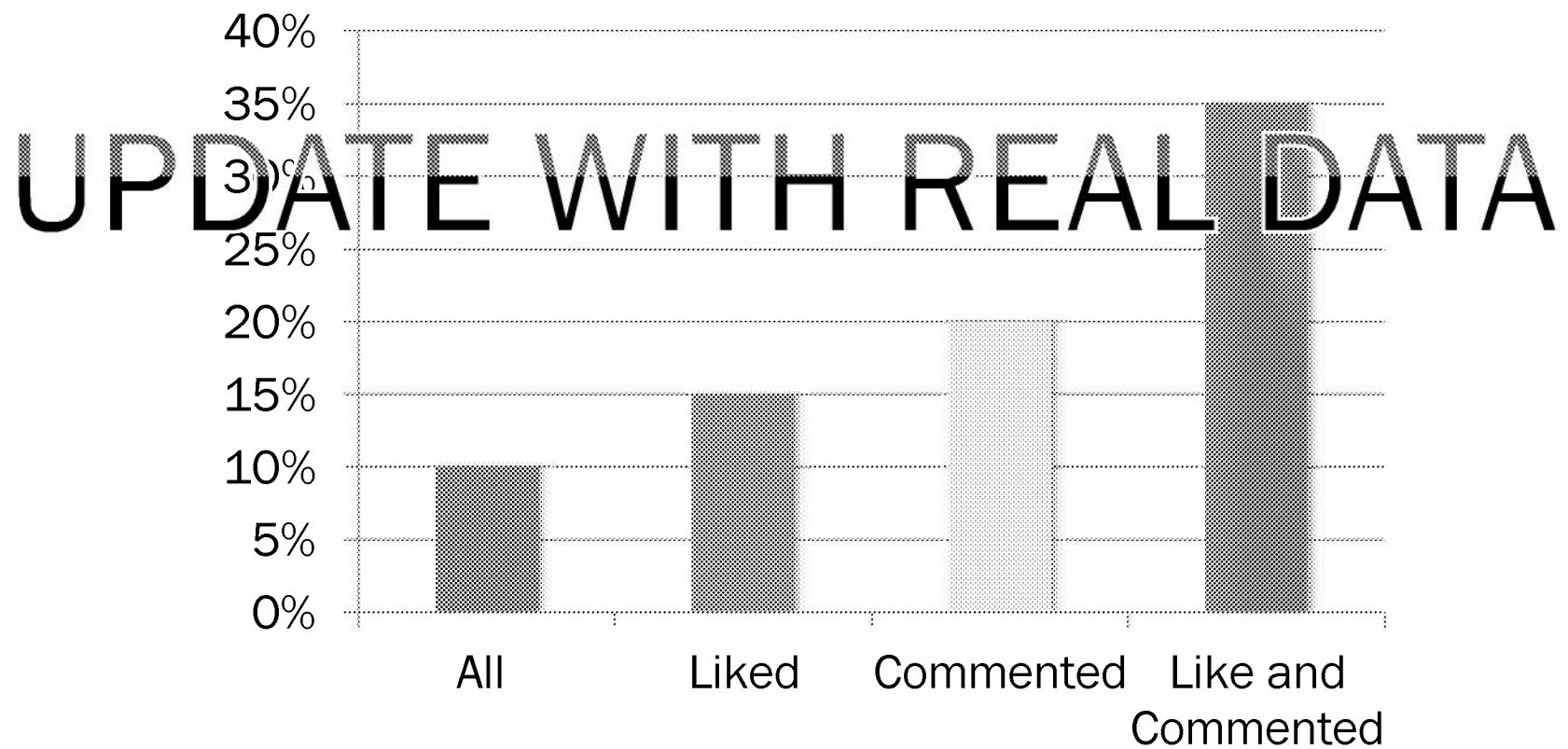
**Show
appreciation/support**

**Show
appreciation/support
, engage in
discussion
Show
appreciation/support,
engage in
conversation, voice
your opinion, increase
distribution**

THE MORE LIKELY YOU ARE TO LIKE OR COMMENT, THE MORE LIKELY YOU ARE TO SHARE



NEW USERS ARE MORE LIKELY TO RE-SHARE THAN OLDER USERS

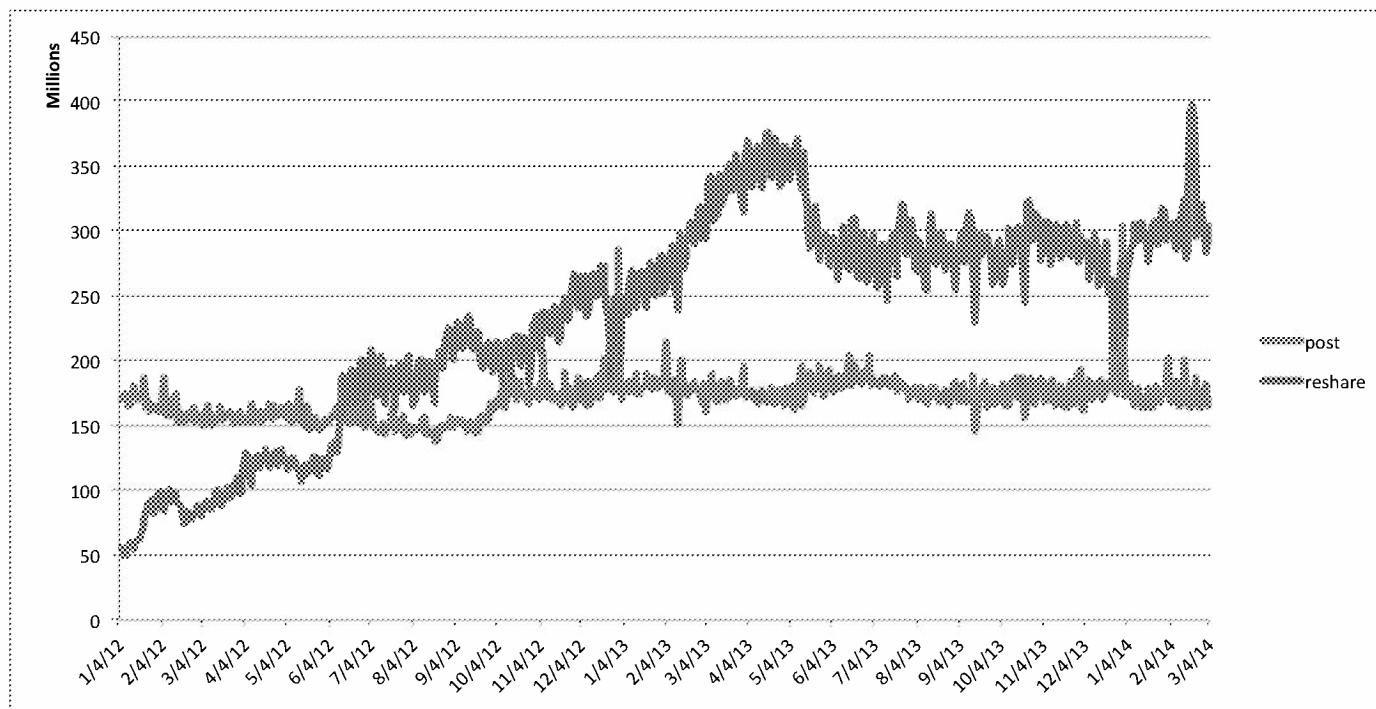


WHY ARE TEXT POSTS FALLING?

TEXT POSTS ARE CANNIBALIZED BY RE-SHARES

- 1. Re-shares directly cannibalize text posts – if a user re-shares something in a FB session, she is less likely to post a text post**
- 2. Text posts are ‘triggered’ by what a user sees in feed:**
 - 2/3rds of iOS ‘Status’ entries happen 1 minute after the app is opened
 - 2/3rds of iOS ‘Photo’ entries happen within 1 minute of app opening
- 3. Unlike photos, text posts are malleable and can be “triggered” by what users see in feed – fewer status updates in feed means fewer status updates created**

RE-SHARES HAVE BEEN INCREASING



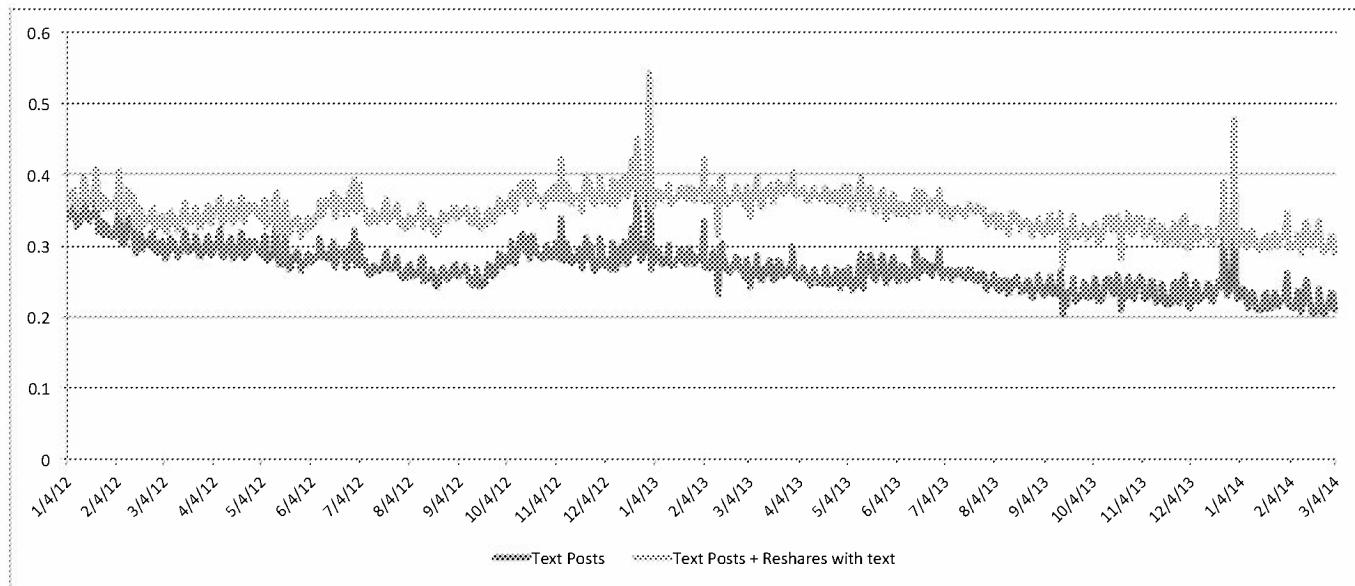
In 2012:

Text Posts = 180 M
Reshares = 50 M

In 2014:

Text Posts = 190
M
Reshares = 300 M

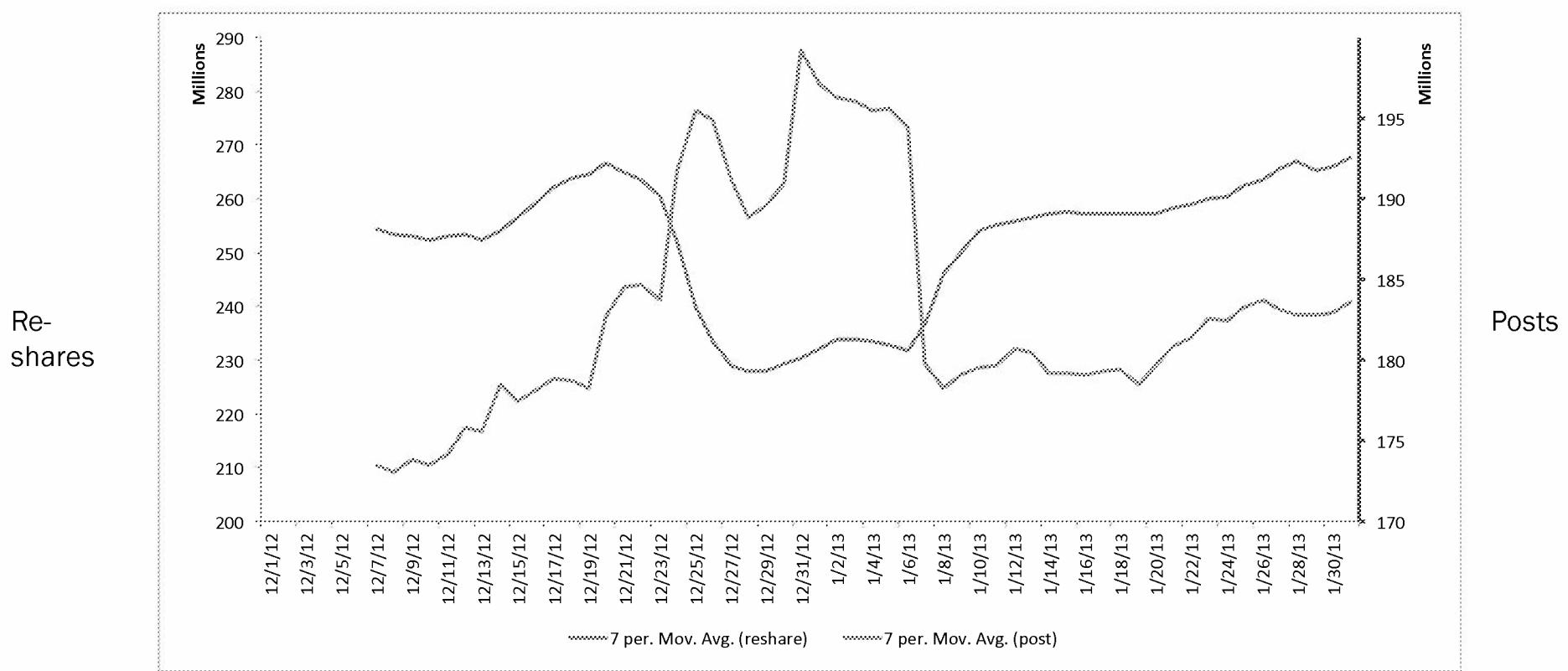
IF WE LOOK AT RE-SHARES WITH TEXT AND TEXT POSTS TOGETHER...



	January 2012	March 2014	Change
Text Post	0.30	0.22	-27%
Text Post with reshares	0.34	0.30	-12%

**NOW LETS LOOK AT MANY INSTANCES
OF CANNIBALIZATION...**

EXAMPLE 1



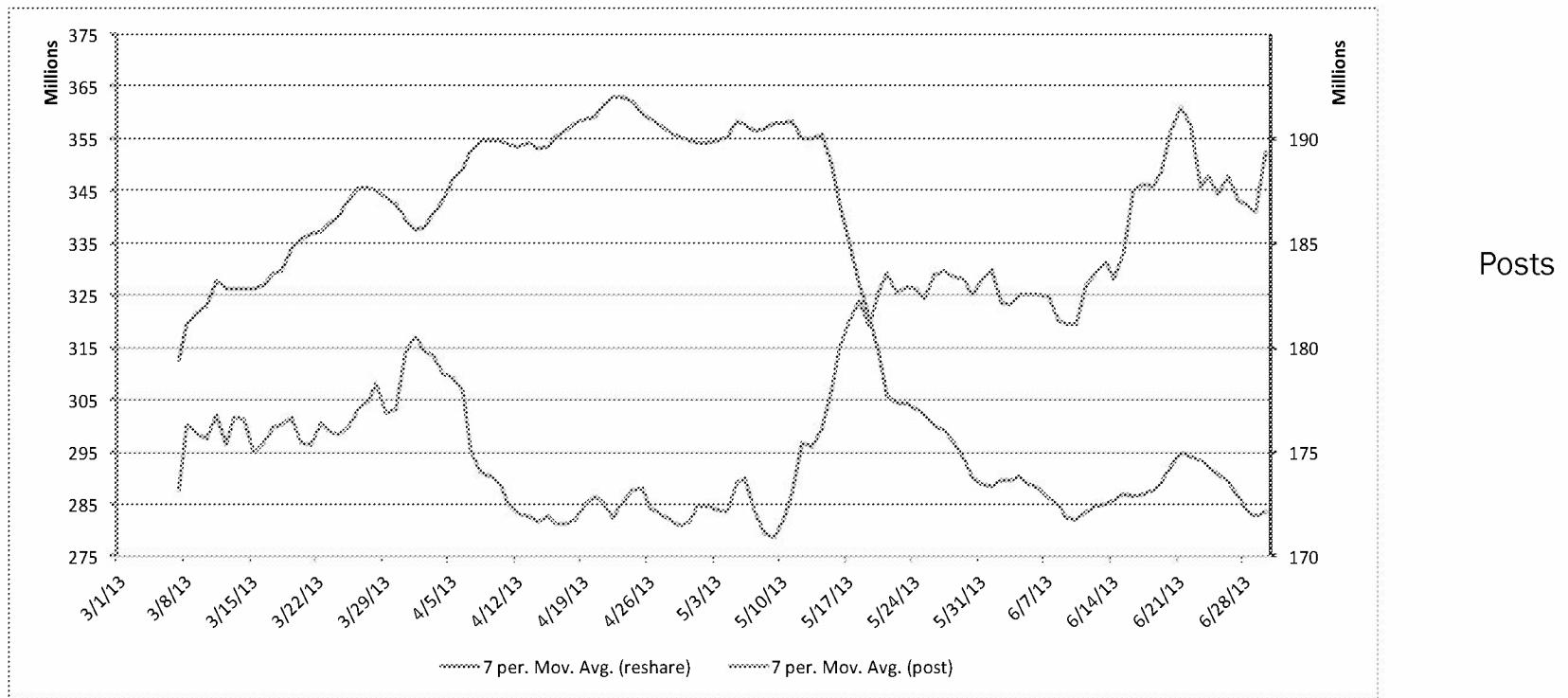
EXAMPLE 2



When we turned up re-shares in the system, text posts fell

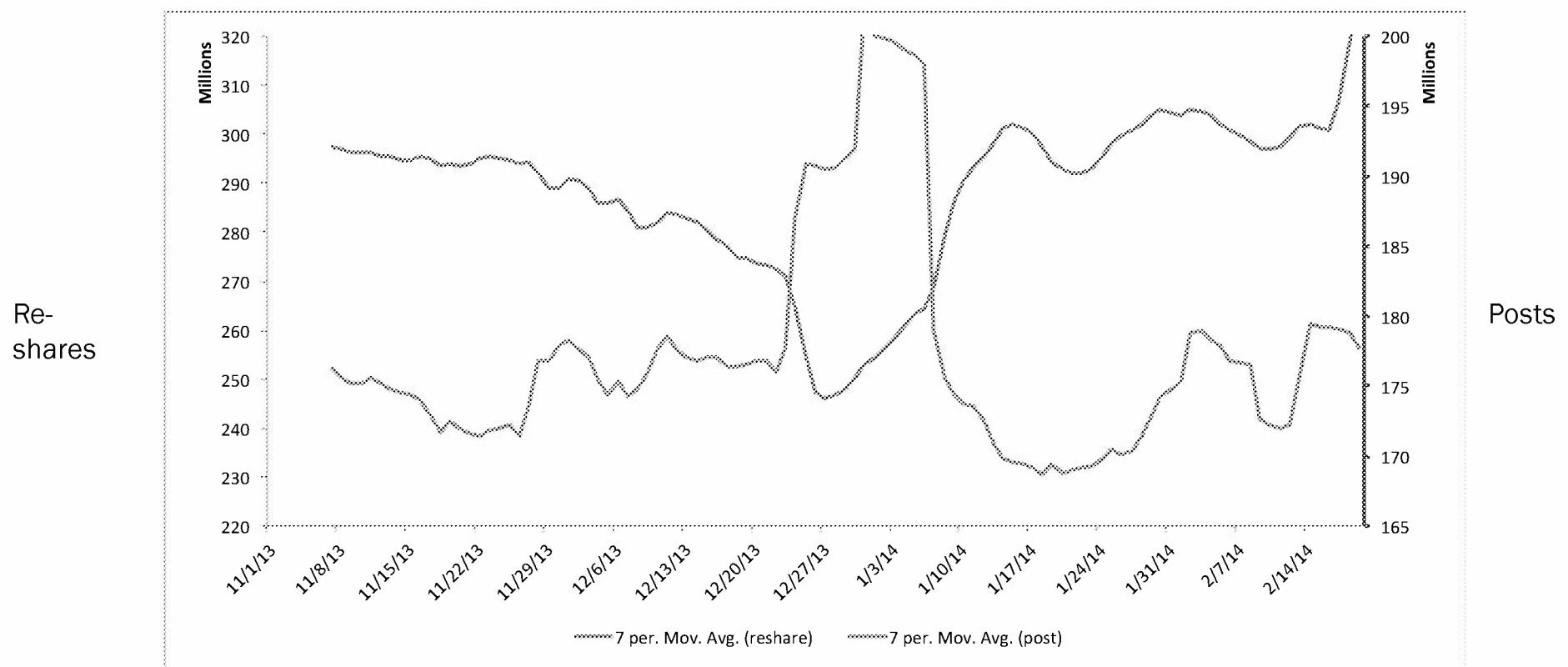
EXAMPLE 3

Re-shares



When we turned down reshares in the system, text posts jumped

EXAMPLE 4

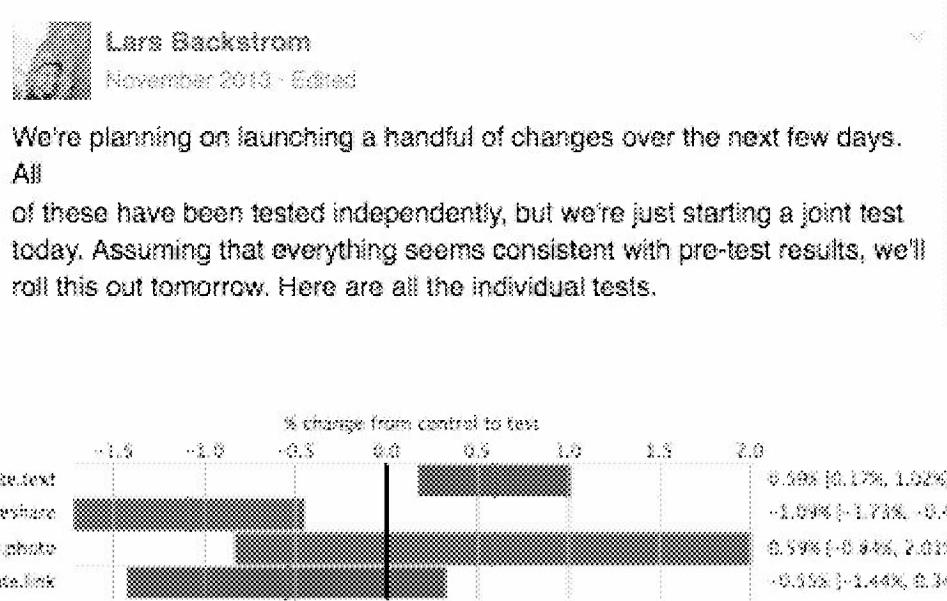


**CORRELATION DOES NOT ALWAYS IMPLY
CAUSATION – BUT IT DOES IN THIS CASE 😊**

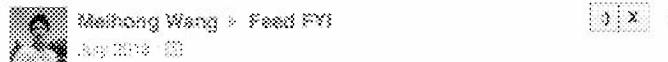
EXAMPLE 5

Re-shares ranking boost level	Increase in re-shares	Decrease in text posts
Medium boost	+4%	-1%
High boost	+5%	-2%

EXAMPLE 6



EXAMPLE 7



Ranking model change for www launched on Saturday 07/20/2013.

There are mainly two changes:

1) enable out of time range stories to bump:

Previously when a story is not selected in a snapshot, it's not eligible to show up in next snapshot(except some special cases). Now we enable out of time range stories to show up, but with more strict requirement(we reduce their weight by 0.1 and the final weight should be higher than threshold + 0.1). As a result, those high quality stories that did not get in at the first place would have another chance[possibly like page stories get lots of feedback after a while. Some of them are probably better than post from you low coefficient friends].

2) less boost for status. We did boosting for status. But with lots of other changes(bumping etc), we are now boosting too much for status(bake-off experiment also shows this). We reduce boosting for status.

With those two changes, we got the following improvement(backtest result, www only)

like +3.1%

comment +4.2%

outbound_click +10.2%

share +8.5%

<http://fburl.com/14688180>

you can break it down by subject type <http://fburl.com/14688185>. It's some positive for friends feed and particularly good for pages. But metric for groups dropped as expected(out of time range was enabled before).

A screenshot of a Facebook feed. The post is from user 'John Maier Deltoid' with the link 'Deltoid results: http://fburl.com/14688180'. It includes a timestamp 'Aug 26, 2013 at 12:34pm' and a small profile picture.

Deltoid results: http://fburl.com/14688180

Total events on web:

Likes +2%

Comments +0.8%

Reshares +5.8%

Status updates -4.8%

[Since we are excluding re-shares without text from the content production definition now, this is slightly net negative on content production]

Likes + Comments in Groups: -3%

Mobile feed ad impressions seem to be up (???) [<http://fburl.com/14688185>]

Weighted user feedback, which is the infod goal, actually appears to be 1.1% "down" in the backtest (<http://fburl.com/14688182>). From scuba it does look like the vast majority of the likes+comments gain is on page content, with feedback to friends roughly flat: <http://fburl.com/14688182>. Will try to dig in to why the feedback goal is down if likes+comments to friends is flat...could be due to the dip in groups feedback (which are often non-friend users).

Is the backtest still running?

Aug 26, 2013 at 12:34pm · Edited · Like · 0 · 1

EXAMPLE 8



Lera Backstrom

October 2012

I'm about to turn status updates up a little bit more in feed (doing this right now). This was pretty successful before, and so we're going to go a bit further. From qrt 1111, test results are:

WWW

likes -0.53 feed / -0.16 sitewide
comments -0.16 feed / +0.46 sitewide
ads in feed -1.6% states / -0.5% revenue
status updates +2.05%
shares in feed -2%

MOBILE

likes -0.32%
comments +0.6%
ads in feed -1% states / +2% revenue
status updates +1.7%

Overall revenue is within margin of error

Like · Comment · Share

**IT IS NOT JUST BOOSTING RE-SHARES THAT
HAS AN EFFECT ON STATUS UPDATES – OTHER
FEED CHANGES IMPACT TEXT POSTS AS WELL**

EXAMPLE 1

We're going to launch two relatively small feed ranking changes tomorrow. First, we're adding a few more features that capture country-level differences. Second, we're going to turn down the diversity penalties we've been applying that prevent too many stories from the same actor.

Metrics impacts from the first (qrt_feed 1140)

- 1% ads in feed revenue (no change overall)
- +0.5% feed likes
- +0.2% feed comments
- +1% shares
- +3% hide
- +5% home appids

and the second (qrt_feed 1204)

- 1.5% home appids
- +1% feed likes
- +0.5% feed comments
- +0.8% feed shares
- +3% feed fanning
- +1% status updates created

EXAMPLE 2

 Varun Kacholia > Feed FYI
January 21, 2013

We are launching the following 2 changes today. Public facing blog post:
<http://newsroom.fb.com/News/787/New-Feed-FYI-What-happens-When-You-See-More-Updates-from-Friends>

1. Unboosting page status updates: About a year back we shipped a boost for all status updates since it led to an increase in content production. However recent experiments indicate that the content production was primarily driven by seeing more friend status and not page status. Removing this boost for page status updates helps in a more consistent reach for page post across the different story types and also removes the incentive for pages to post links as status.
2. Outbound click value: We are further continuing to optimize the value of outbound clicks - dropping it for low quality pages (eg memes) and increasing a bit on mobile & reducing on www to be more consistent.

Results:

LOCAS: +2%
WUF: +0.2%
Content production: flat
Overall page imps: -4% (this is more skewed towards low quality pages -- eg memes)
Top adv imps: -1%

Detold: <https://fburl.com/16038169>

% change from control to test

production.status_update.test	-1.2	-1.1	-1.0	-0.9	-0.8	-0.7	-0.6	-0.5	-0.4	-0.3	-0.2
production.status_update.test	-0.7	(-1.35%)	-0.1	(+0.0%)							

EXAMPLE 3

Minwen Ji • Feed FYI
July 29, 2013

An FYI that's better late than never: Readstate bumping has been enabled on m_touch since Monday. Metrics of top news feed on m_touch in qrt test 1521_4281:

Click: 2.8%
Comment: 5.6%
Like: 6.2%
Outbound click: 33.3%
Share: -7.7%
Status update: 2.83%
Ads clicks: 8.8%

Most of the gains on comments and likes came from friends' stories. The drop on shares was a result of reduced imps on page stories. (Note that shares are rare on m_touch in general, roughly 1:10 to comments and 1:100 to likes.)

Overall metrics are slightly positive given the small fraction of m_touch traffic. Around +0.3% to our top line weighted feedback goal:
[http://fburl.com/14693827 "source_weighted_user_feedback"](http://fburl.com/14693827).

m_touch feed metrics in detloid: <http://fburl.com/14693784>
Overall feed metrics in detloid: <http://fburl.com/14693772>
m_touch top news metrics in scuba: <http://fburl.com/14693828>
Overall metrics in scuba: <http://fburl.com/14693833>
m_touch ads metrics in scuba: <http://fburl.com/14693953>

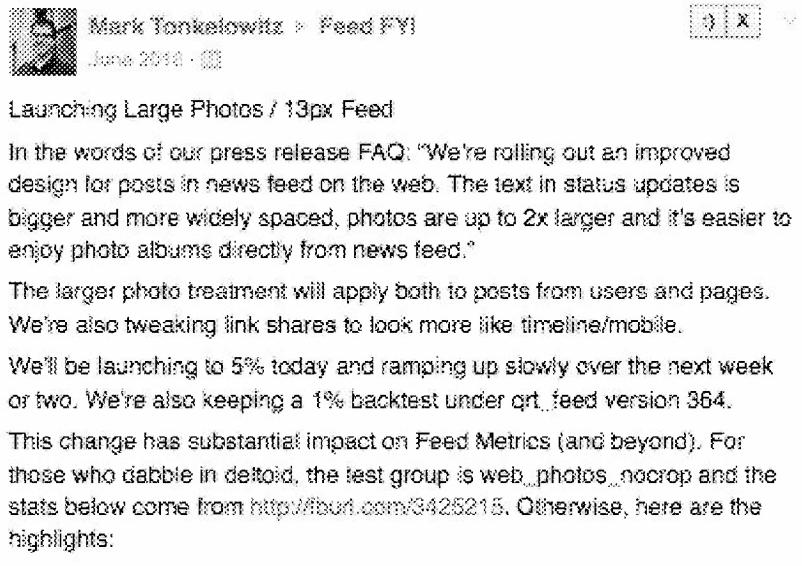
Thanks to Mike Rumble for the vpv logging on m_touch. Looking forward to bumping on the iOS and Android apps! ☺

CC'ing John Maher

<http://fburl.com/14693827>
PERFORMANCE

Like · Comment · Share · 28 137 · 2641

EXAMPLE 4



Mark Tonkelowitz > Feed FYI
June 2010 · 13px Feed

Launching Large Photos / 13px Feed

In the words of our press release FAQ: "We're rolling out an improved design for posts in news feed on the web. The text in status updates is bigger and more widely spaced, photos are up to 2x larger and it's easier to enjoy photo albums directly from news feed."

The larger photo treatment will apply both to posts from users and pages. We're also tweaking link shares to look more like timeline/mobile.

We'll be launching to 5% today and ramping up slowly over the next week or two. We're also keeping a 1% backtest under qrt_feed version 364.

This change has substantial impact on Feed Metrics (and beyond). For those who dabble in deltoid, the test group is web_photos_nocrop and the stats below come from <http://fburl.com/3426215>. Otherwise, here are the highlights:

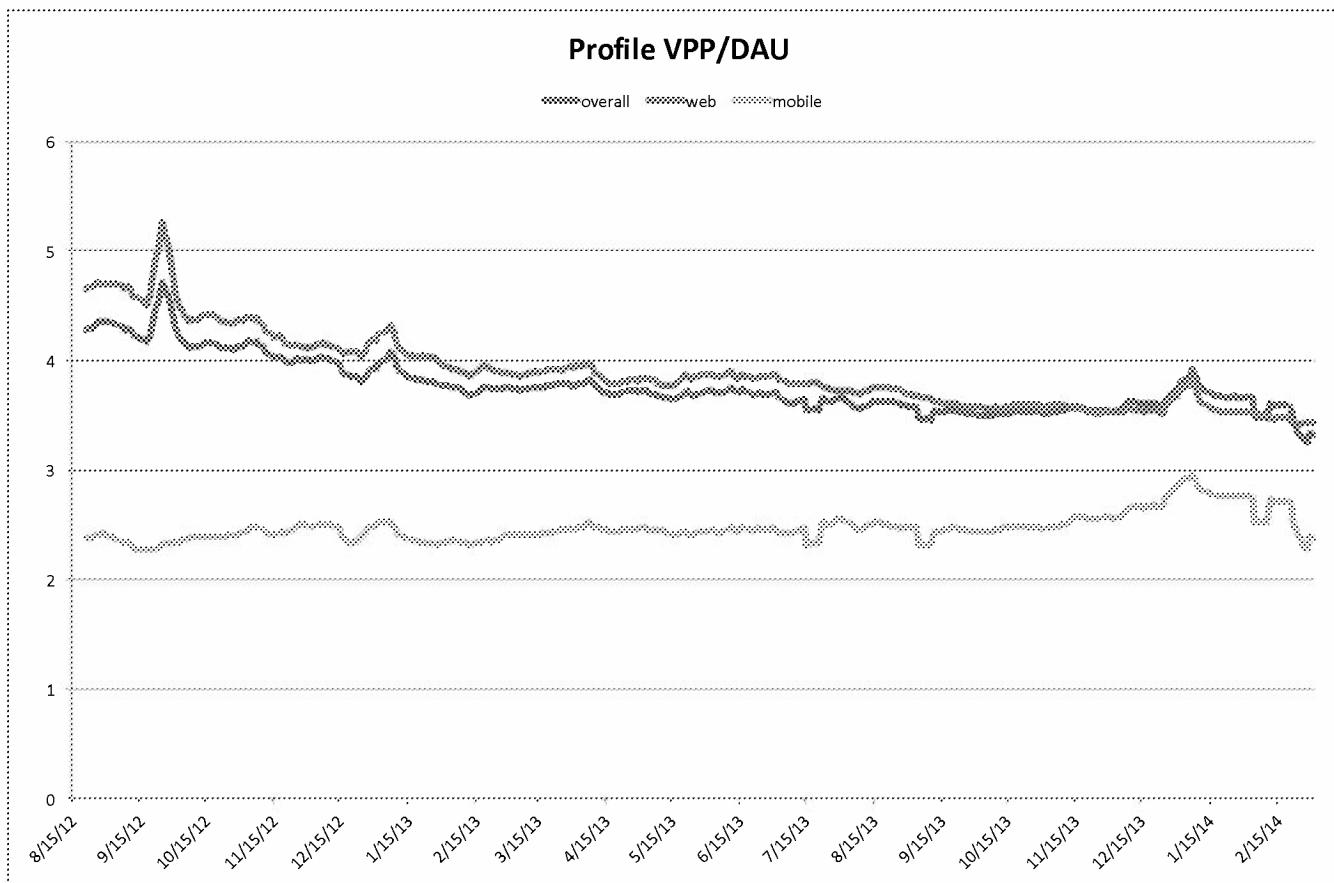
-0.5% drop in text posts

ECOSYSTEM ALSO MAY BE SHRINKING

- We now have Instagram / Snapchat / Pinterest that are communication tools purely based on photos
- More people have phone and phones have cameras
- It will be hard to isolate the impact of this

WHY ARE WALL POSTS DOWN?

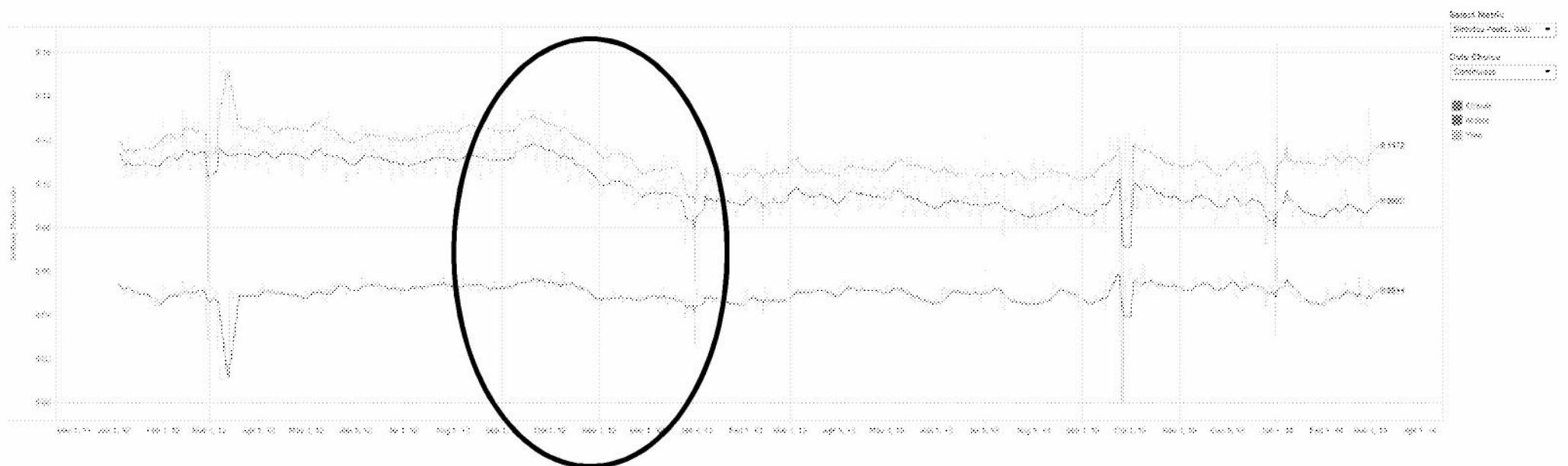
TIMELINE VISITS HAVE BEEN DROPPING



- These are all provide viewer profile pairs, including self profile views.

**WE WILL FIRST FOCUS ON BIRTHDAY WALL
POSTS...**

TIMELINE HURT BIRTHDAY POSTS



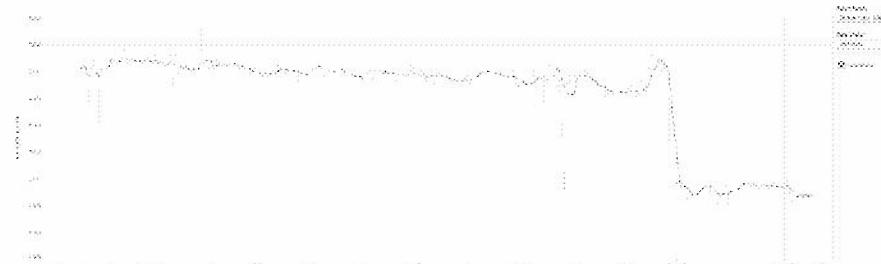
Effect of timeline rollout

MOBILE MIGRATION HURTS BIRTHDAY POSTS

Wall Posts	Overall	Web	Android	iPhone	mFeature	mSmart
WUC/DAP	0.04	0.05	0.015	0.025	0.035	0.005
YOY	-6%	+ 5%	49%	13%	15%	-62%

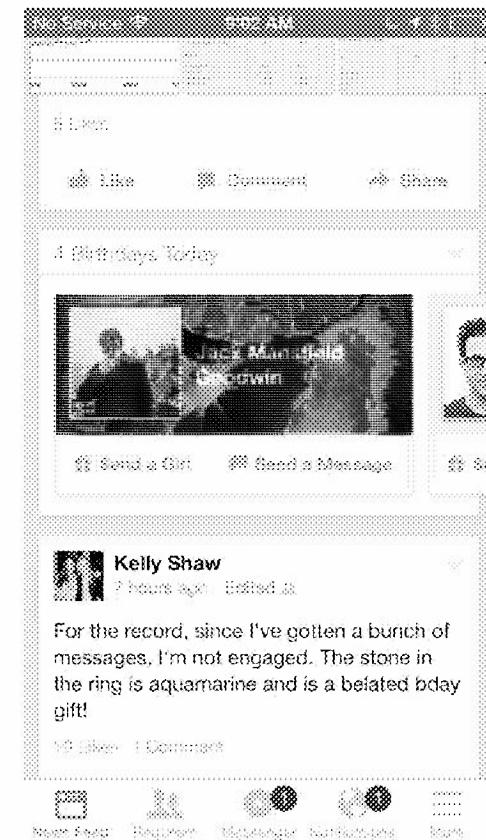
Drivers of the drop

1. The drop in birthday posts in purely Mobile CP/DAP = $\frac{1}{2} \times$ Web CP/DAP
2. M-Smart on Nov 26: We removed the reminder box on Mtouch.



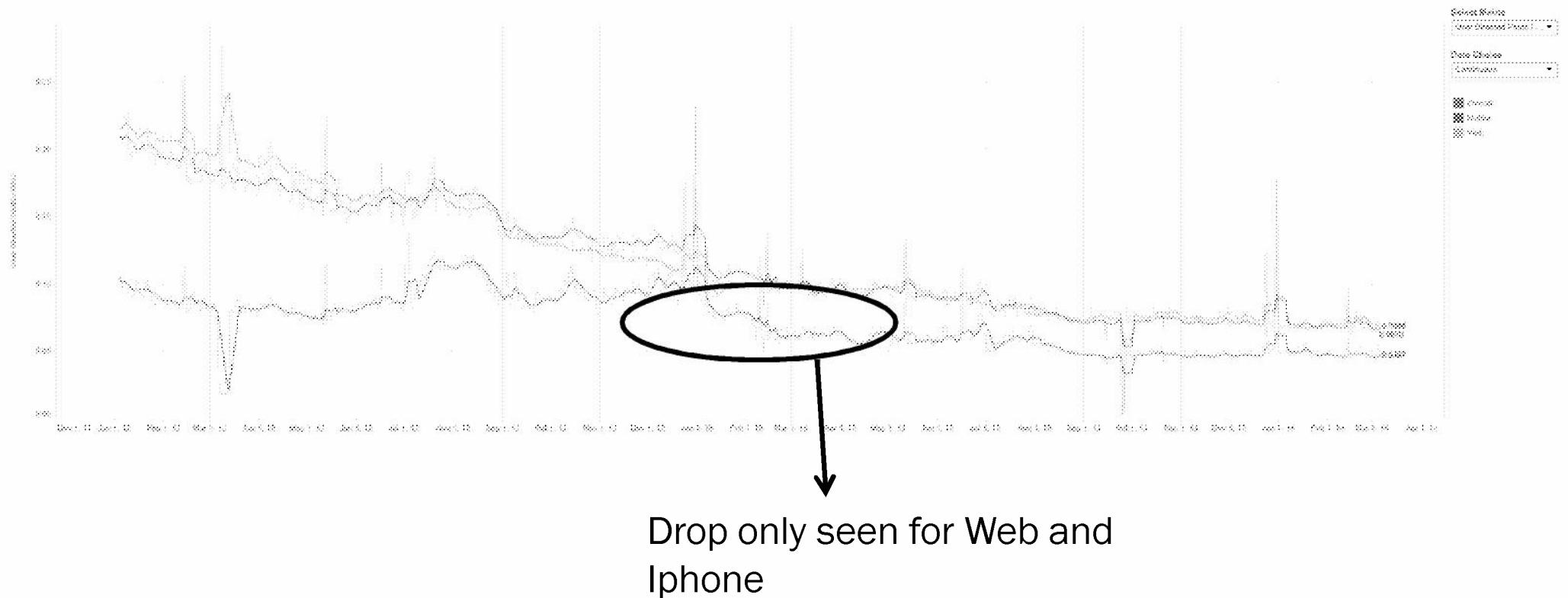
MOBILE BIRTHDAY FEED PROMPTS NOT EFFECTIVE

- “Dummy stories” so they aren’t ranked well
- Say “Send as Message” instead of “Write Post”
- Don’t exist on mFeature
- Logging messed up (e.g. can’t attribute wall posts to these widgets)

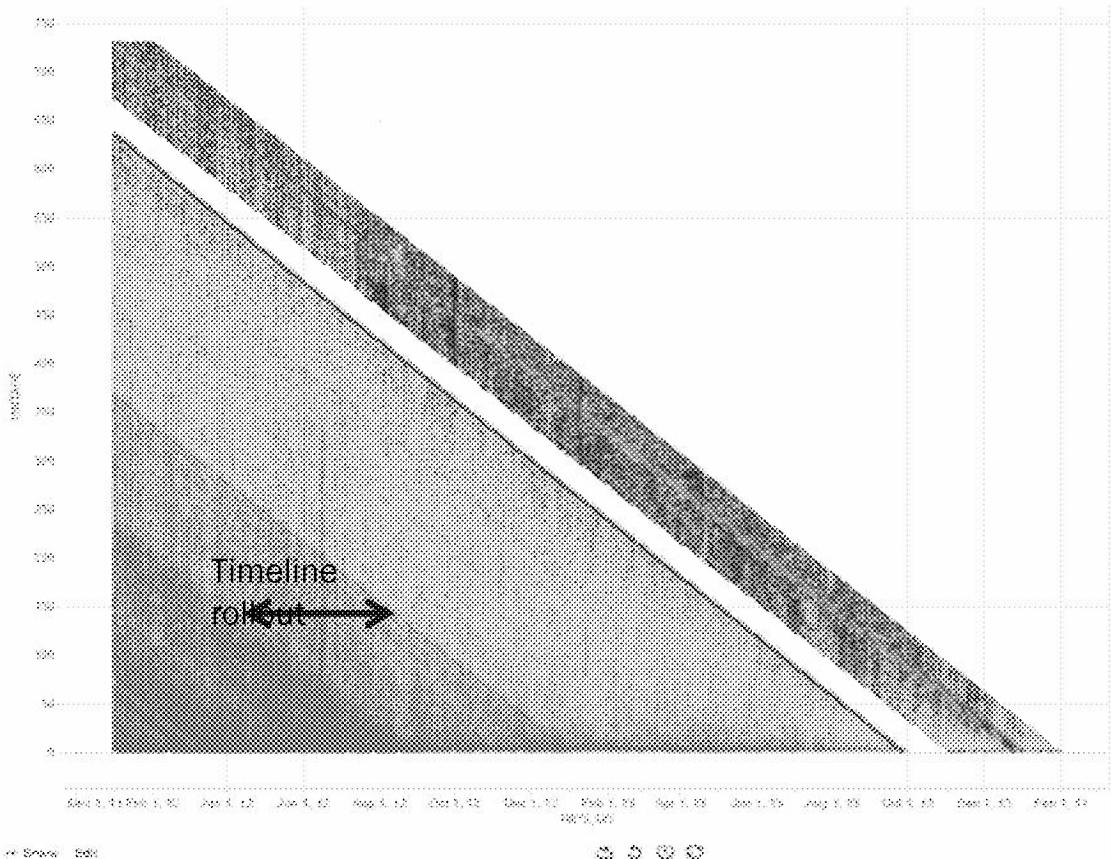


NEXT WE DISCUSS NON-BIRTHDAY POSTS...

WALL POSTS



TIMELINE HURTS WALL POSTS; NEW USERS USE WALL POSTS LESS



- We can clearly see the effect of timeline rollout. The impact was estimated at O(10%).
- On both Mobile and Web, with time users seem to be using the product less
- New users use wall posts less

WALL POSTS, AS A PRODUCT, SEEM TO BE DYING

Wall Posts	Overall	Web	Mobile	Android	Iphone	MBasic	Mtouch
CP/DAU	0.04	0.03	0.03	0.03	0.02	0.06	0.02
YOY	-40%	-40%	-40%	-3%	-50%	-40%	-40%

There is a steady decline and this is compounded by some step changes:

- Web: Step changes on timeline rollout
- People use the product less over time
- New people use the product less than old people

SPEAKER NOTES FOR SLIDE 55

Photo Container is counted as a text post and will be considered later.

EFFECT OF MOBILE MIGRATION

WHAT WE DID

- We looked at a cohort of users who registered before June 2012
- We look at two cohorts
 - ‘Test cohort’: Users who first used FB on a mobile in Jan 2013
 - ‘Control cohort’: Users who are only on Web till July 2013
- We look at YOY from June 2012 to June 2013 (7day and 28 day avg)

SUMMARY

	Desktop	Mobile	Total
WUC/DAU	2%	2%	0%
Overall content/DAU	20%	10%	-10%
DAU	10%	30%	20%

Mobile migration does change what and how people share. However it is not a major negative driver for WUC/DAU. It does drop Volume/DAU and increase DAU.

SUMMARY - II

	Desktop	Mobile	Desktop	Mobile
WUC/DAU	2%	2%	0%	
Reshares/DAU	60%	45%	-15%	-2%
Single Photos/DAU	3%	25%	+22%	+3%
Batch Photos/DAU	1%	-5%	-6%	-2%
Text Posts/DAU	-2%	-4%	2%	+1%

**Mobile migration does change what and how people share.
However it is not a major negative driver for WUC/DAU.
It does drop Volume/DAU and increase DAU.**

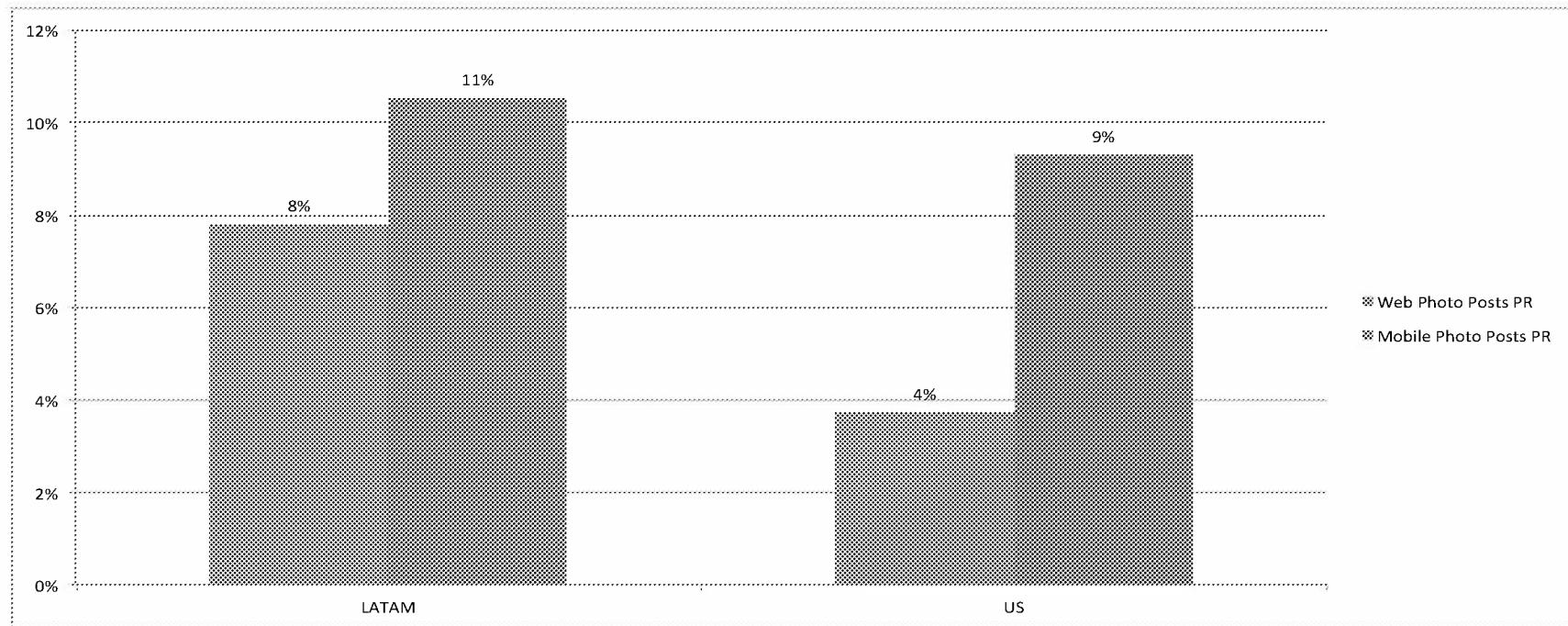
WHY ARE BULK PHOTOS DOWN AND SINGLE PHOTOS UP?

SUMMARY

- People do share photos more frequently on mobile compared to web
- Batch photos are declining due to mobile migration
- Single photos, as an ecosystem, is growing both on mobile and web

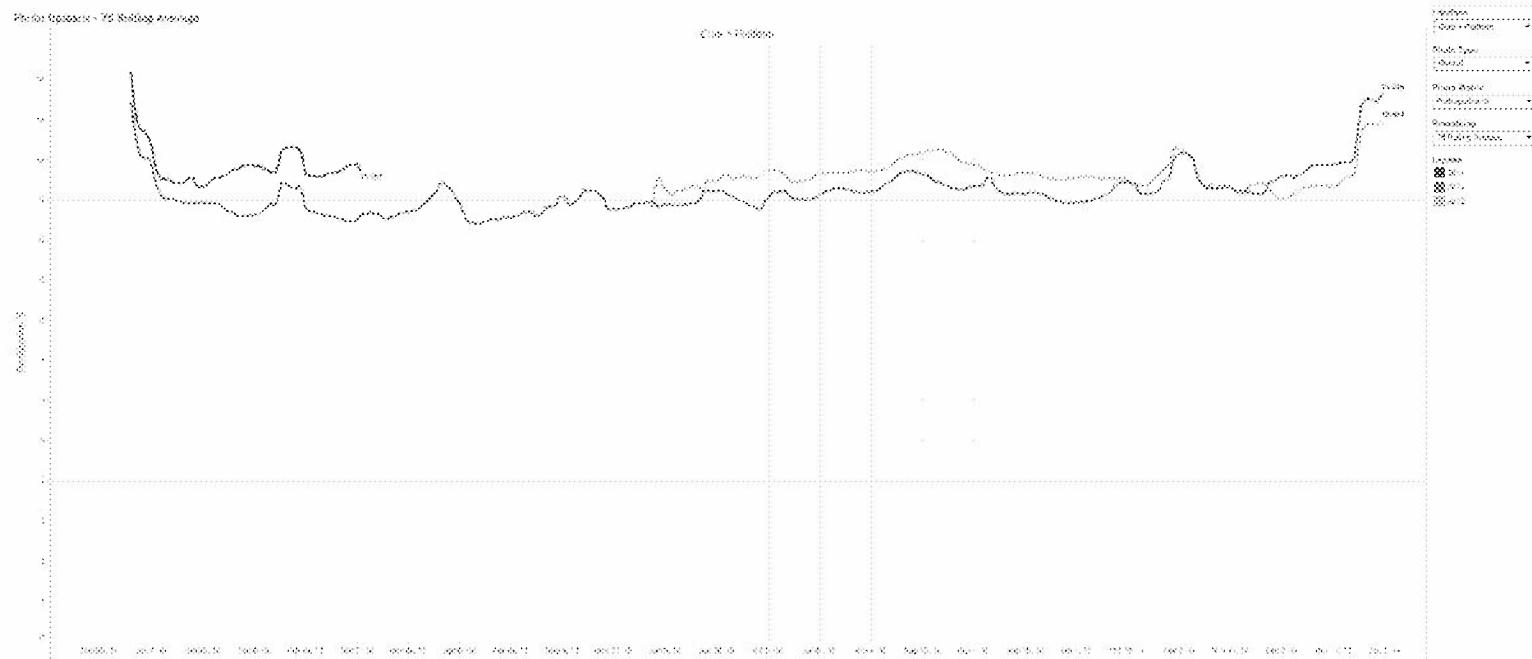
These insights are also confirmed by the analysis (next section) that we did for a single cohort of users who get a phone.

MOBILE PARTICIPATION RATE IS HIGHER THAN WEB



Depending on the specific region Mobile Posts PR can be 2 X Web Posts PR

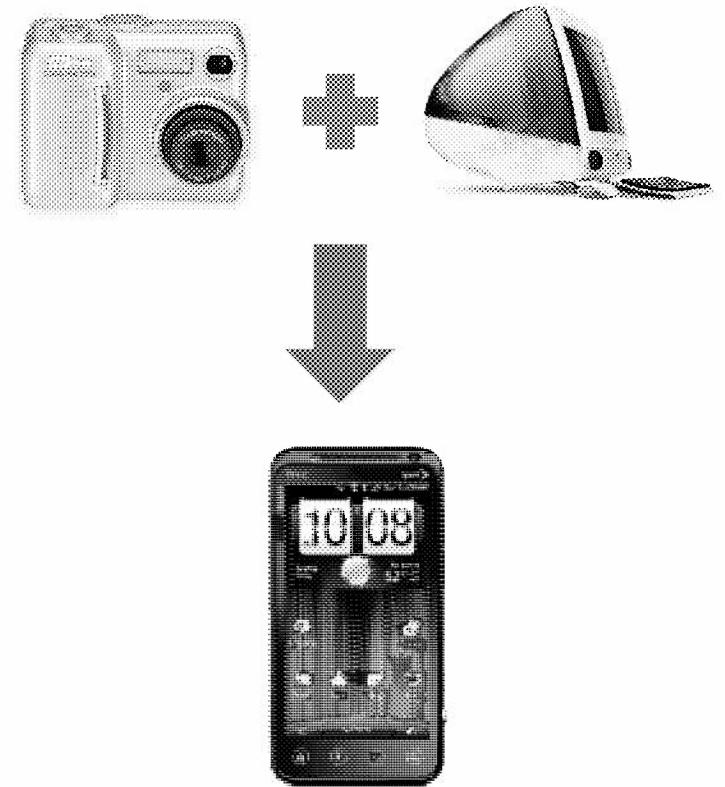
AND THIS IS HOW OVERALL PHOTOS PR TRENDS...



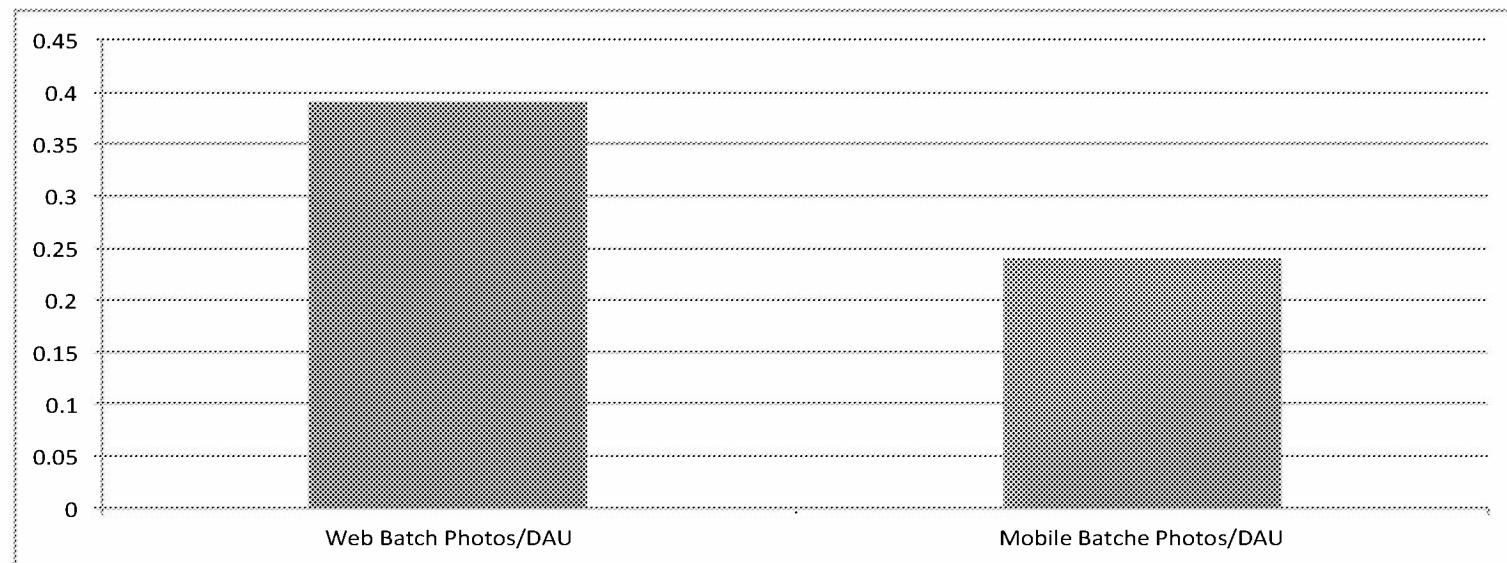
We had some big setbacks with Wilde and Mustang towards the end of 2012 but since then we have caught up and we are doing better than 2013 and comparable to 2012

PHOTO SHARING BECOMING MORE REAL TIME

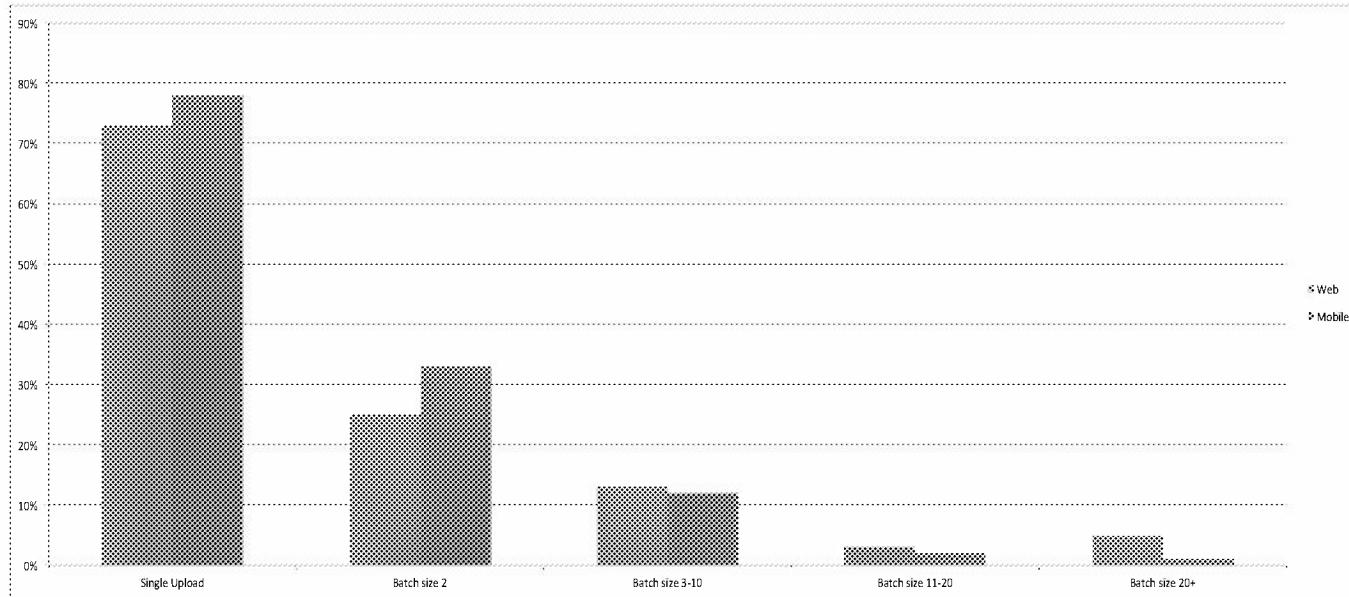
- Before phones, people would take their digital cameras out for special events, vacations etc.
- Then, they would post a bunch of photos at once – after uploading them to their computer
- With phones, people take and share more photos more often
- They share them more frequently and individually (rather than waiting to upload a bunch at once)



MOBILE BATCH PHOTOS UPLOAD RATE IS LOWER THAN WEB

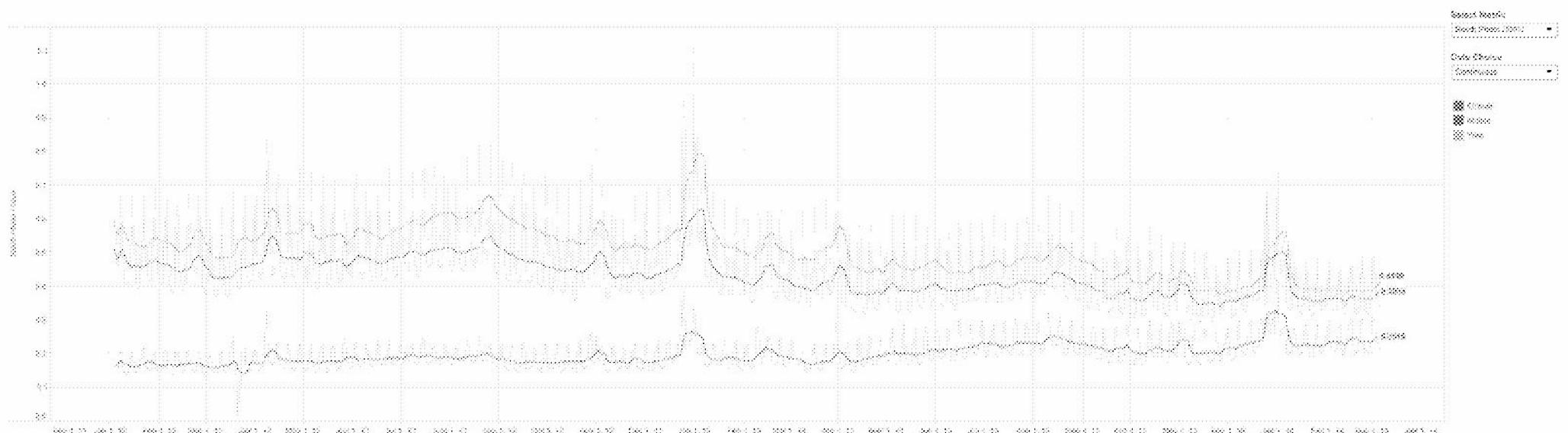


MOBILE VERSUS WEB BATCH SIZE



As we can see batch sizes on mobile are much smaller.

OVERALL TRENDS

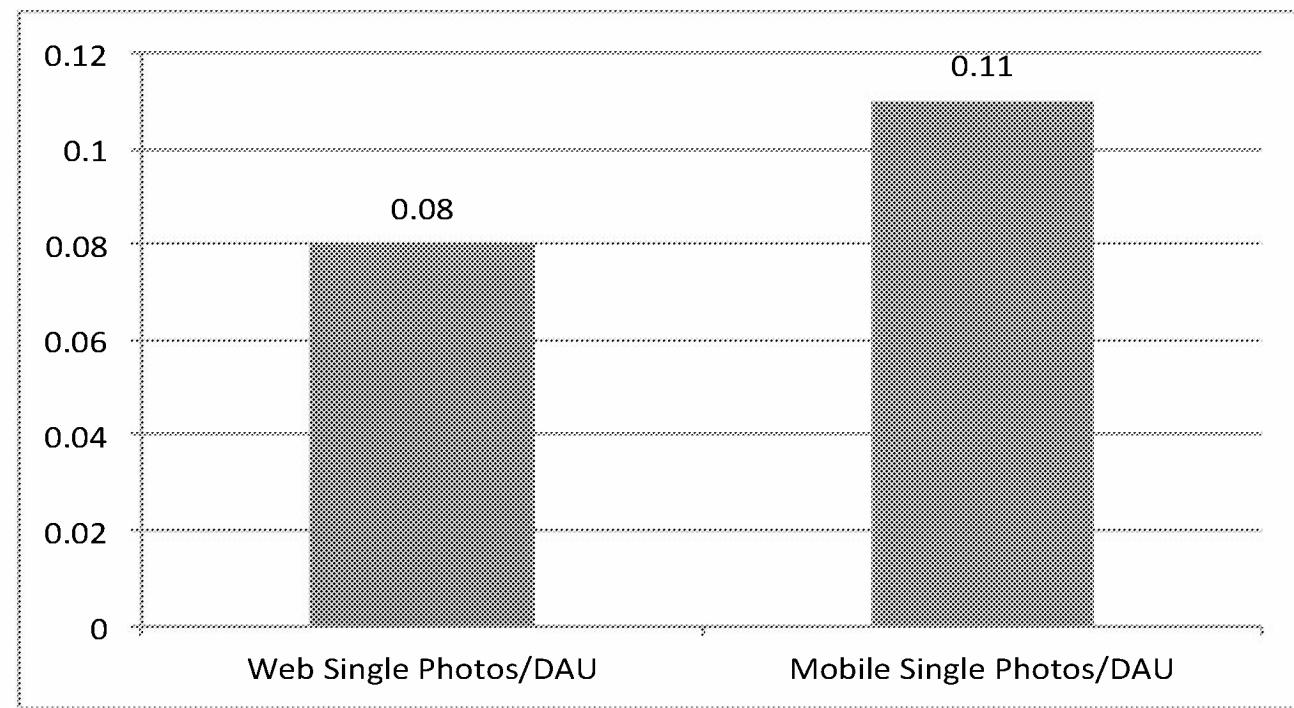


PHOTOS ECOSYSTEM EXPANDING

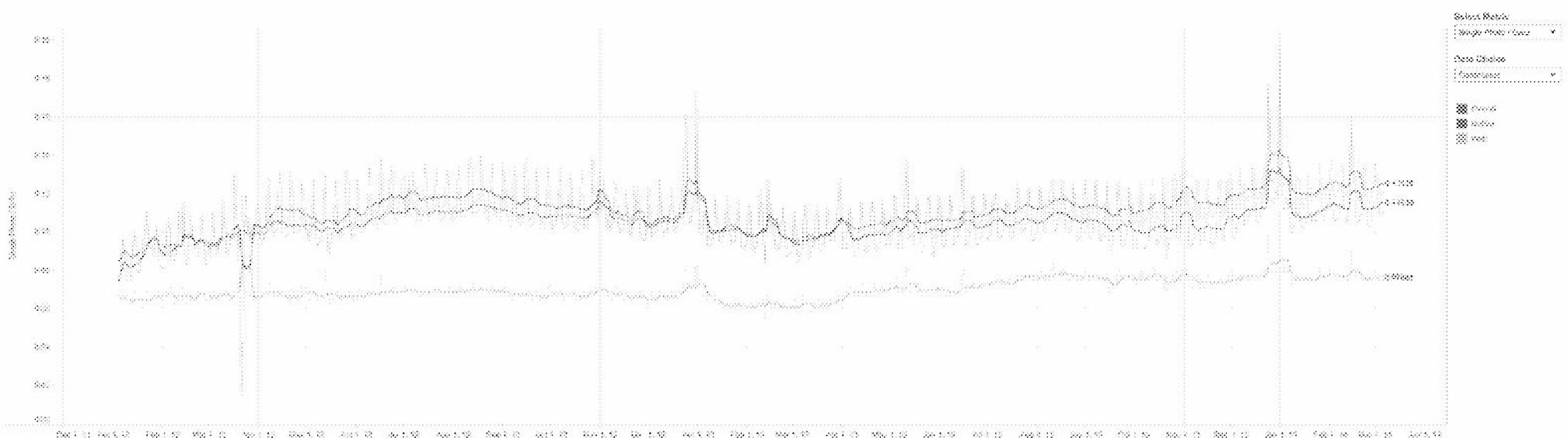
- Selfies are a thing
- #tbt
- Instagram
- Etc...



MOBILE SINGLE PHOTOS UPLOAD RATE IS HIGHER THAN WEB



AND BOTH OF THEM ARE GROWING...



THE NET IMPACT ON OVERALL PHOTOS IS..

OVERALL PHOTOS WUC

	WUC/DAU YR 2012	WUC/DAU YR 2014	Change
Overall	0.34	0.35	3%
Web	0.32	0.31	-3%
Android	0.13	0.28	115%
Iphone	0.19	0.24	26%
Msite	0.08	0.14	75%

OVERALL PHOTOS WUC

