



*Mobile Advertising  
Marketplace Report*

*Q1 2013*

## **Executive Summary**

**At the end of Q1 2013 there was greater momentum and demand than at the end of Q4 2012.**

**Improved insights into users' mobile behavior and adoption of higher impact ad units sets up continued momentum in Q2 2013**

- Our three core metrics used to track demand, eCPM, Clear Rate and Bid Depth were higher. Despite an extended down cycle, significant ad spend growth at the end of the quarter led to Q/Q growth.
- The CPM premium on impressions for iOS over Android, iPad over iPhone and iPhone over Android Smartphone increased from January to March to 39.4%, 32.0% and 76.0% respectively
- Monthly ad spend share on iPhone grew 12.4% over the quarter and now accounts for over 50% of ad spend on the exchange or more than two times the share of Android Smartphones
- Android tablets have failed to gain traction, accounting for less than 1.0% of ad spend
- Ad spend shifted to more engaging and interactive ad units as the CPM premium for impressions that support MRAID rich media increased 9.2% and their share of ad spend grew 15.7% to 79.1%
- Adoption of larger ad sizes grew exponentially as the CPM increased 161.8% and ad spend share increased 214.7% for 480X320 impressions; conversely small ad sizes like 320X50 experienced CPM and ad spend share declines
- Mobile media buyers opportunistically shifted ad spend in real time based on insights about user behavior during severe weather storms, holidays and live mass media events

## About The Report

The Mobile Advertising Marketplace Report provides market data from real-time bidding auctions for mobile ad impressions, aggregated from smartphone applications, advertisers and demand side platforms on MoPub Marketplace.

MoPub Marketplace is the mobile ad exchange product of MoPub, where advertisers and their representatives can bid on ad inventory from thousands of smartphone application publishers. Over 230 Tier 1 brand advertisers, including 58 of the top 100 largest advertisers in the United States bid on inventory through MoPub's efficient real-time market. Access is provided by 60 bidder platforms that are integrated into the exchange.

The data reflected here is solely representative of exchange-traded media on MoPub Marketplace and does not include any ad network or ad network mediation data.

MoPub Marketplace suppliers are smartphone application publishers from the U.S., Europe, Asia, and Latin America. The data is representative of 45 billion monthly ad impressions across two dozen verticals.

MoPub is a neutral and private entity. MoPub does not sell advertising nor do we buy inventory.

To receive future reports like these from MoPub, visit [www.mopub.com/reports](http://www.mopub.com/reports).  
For specific data inquiries, email [marketing@mopub.com](mailto:marketing@mopub.com).

## About MoPub

MoPub is the world's leading ad server for smartphone application publishers, designed to drive more ad revenue through a single solution. We offer the first comprehensive monetization platform for mobile app publishers that combines real-time bidding, ad serving, cross-promotional capabilities and ad network mediation into one, easy-to-use platform. As a pioneer in real-time bidding for mobile, we built the first transparent market that enables advertisers and other demand side buyers to access billions of ad impressions with hyper-targeted data from app publishers. Through MoPub's open-source, flexible SDK, users get complete control and transparency into how much revenue they are receiving from every ad or campaign.

MoPub was founded in 2010 by an experienced mobile advertising technology team and has raised nearly \$20 million in venture capital from Accel Partners, Jafco Ventures, and Harrison Metal Capital. MoPub has offices in New York City and San Francisco, where it is headquartered. For more information, please visit [www.mopub.com](http://www.mopub.com) and follow MoPub on Twitter at [www.twitter.com/mopub](http://www.twitter.com/mopub).

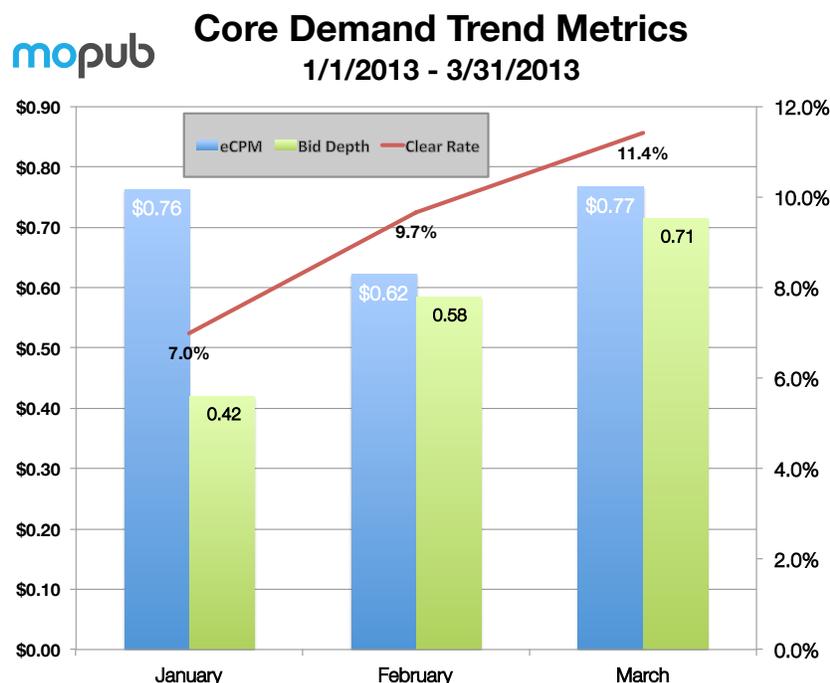
For more information about MoPub, visit [www.mopub.com/](http://www.mopub.com/) or email [marketing@mopub.com](mailto:marketing@mopub.com).

## Q1 2013 Ends On Momentum Upswing

Historically, advertising has strictly adhered to a seasonal uptick during the holidays at the end of the year and witnessed a subsequent down cycle at the beginning of Q1. Typically, ad spend rebounds during Q1. However, this year that uptick occurred later than anticipated for mobile ad spend in particular. Many advertisers paused marketing efforts in response to economic uncertainty from unresolved Government budget and policy decisions. Widespread unexpected delays in Tier 1 advertiser ad spend from agencies pushed media plan timelines back even further.

Agencies were still ramping up after a significant number of the largest global advertisers held account reviews in 2012. During the first half of last year these brands simultaneously decided to adopt a more unified global approach to their media buying and planning. They informed all of their regional agency partners that they would commence a lengthy procurement processes to find the partner best suited to provide services globally.

Account reviews of this magnitude are bandwidth intensive and there is a significant time requirement for ramping up after a decision has been made. Even agencies that retained a client would have been preoccupied with the selection process and expanding their role in new markets. Bandwidth constraints interrupted decisions about upfront television commitments, and thus 2013 ad budgets and Q1 media plans.



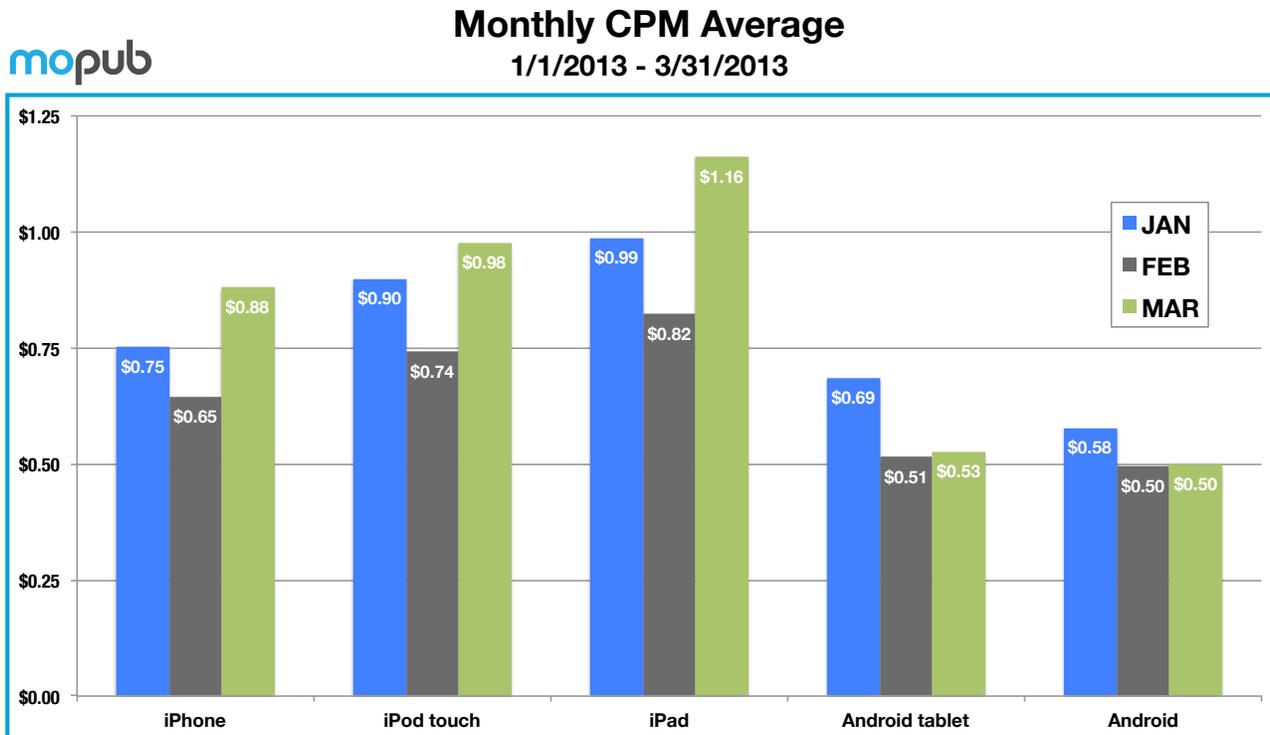
- Many budgets went live or increased significantly during the weekends in late February and early March
- Two weeks into March ad spend exploded
- Multiple days at the end of the Q1, including the first two days of March Madness, surpassed the daily ad spend peak in Q4

## Android Impressions Did Not Sustain Traction

The value of ads on devices running Android OS declined significantly from last quarter.

During Q4 2012, CPMs on Android device impressions increased. Many buyers credited an expansion in the Android user base to widespread adoption of high end devices like Samsung’s Galaxy S and Note. Previously Android’s user base was less likely to have a credit card or significant disposable income compared to device owners running iOS. Additionally, with an installed base of hundreds of millions of iTunes accounts, iOS users were more likely to make purchases using a mobile phone. There was a lower barrier for purchasing virtual goods for game apps on iOS devices because the users already had a credit card registered with their iTunes account. Also, having purchased content from iTunes, iOS users predominantly had a higher comfort level with transactional behavior. Initially advertisers for game apps that encouraged purchasing virtual goods and e-commerce apps that enabled physical product purchases from the device were willing to pay above market CPMs for ad impression on iOS devices. The potential value of each user acquisition was higher than it was for other applications, as average revenue per use was significant. Once Android’s user base included a larger number of users with credit cards and disposable income, the CPM for ads reaching that audience increased.

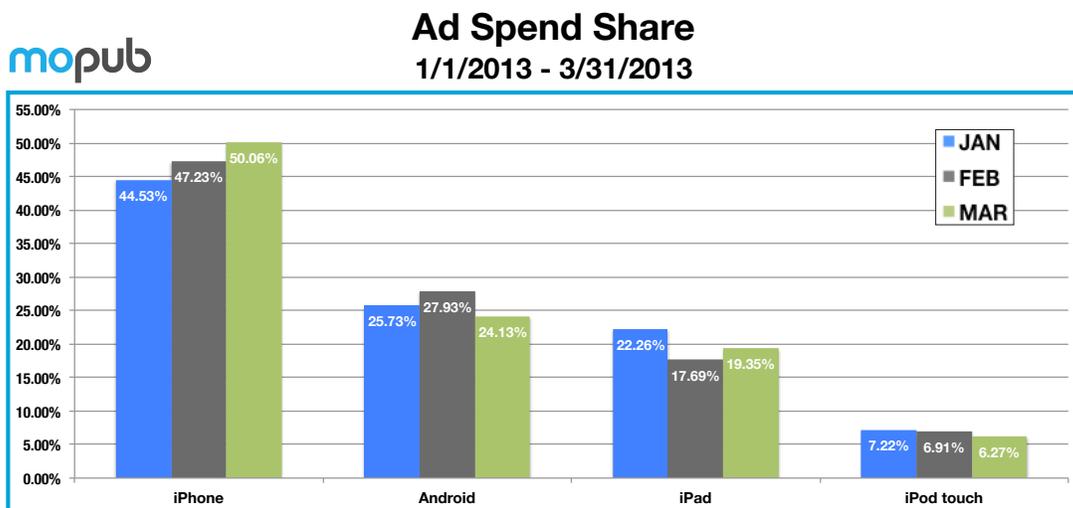
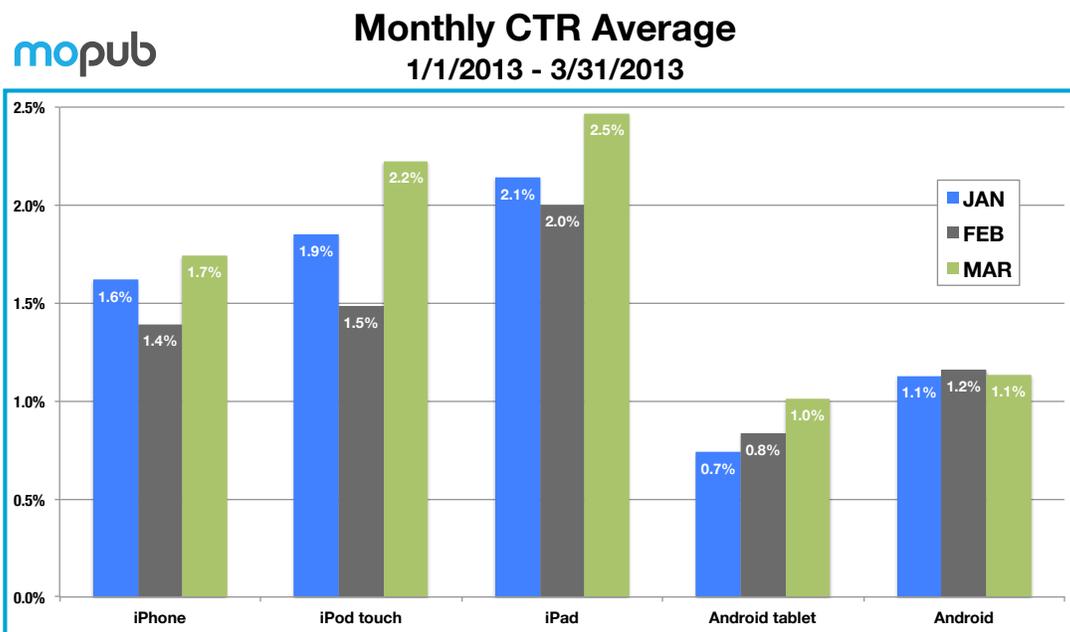
In Q1 2013, many ad buyers discovered the increase in user value on Android devices was offset by a poor conversion rate of users from these ads.



- In February, Android captured monthly ad spend share from iOS; a month later ad spend for Android declined below the share it had in January
- Traction was notably low for Android tablets, which had less than 1% of ad spend share
- CTR remained flat and CPM declined for Android impressions

## iOS Demand Advantage Over Android Sustained

Decreased ad spend was not the only signal that the down cycle had begun in January. Demand, for Android impressions, measured by the average number of auction bids, exceeded demand for iOS impressions. As the down cycle extended into February, buyers sought out less expensive access to high value users. iOS ad spend was limited to cheaper lower quality inventory. Inevitably performance of iOS inventory declined. Yet, after increased bidding and ad spend on less expensive Android inventory, iOS ads still retained a healthy performance advantage.



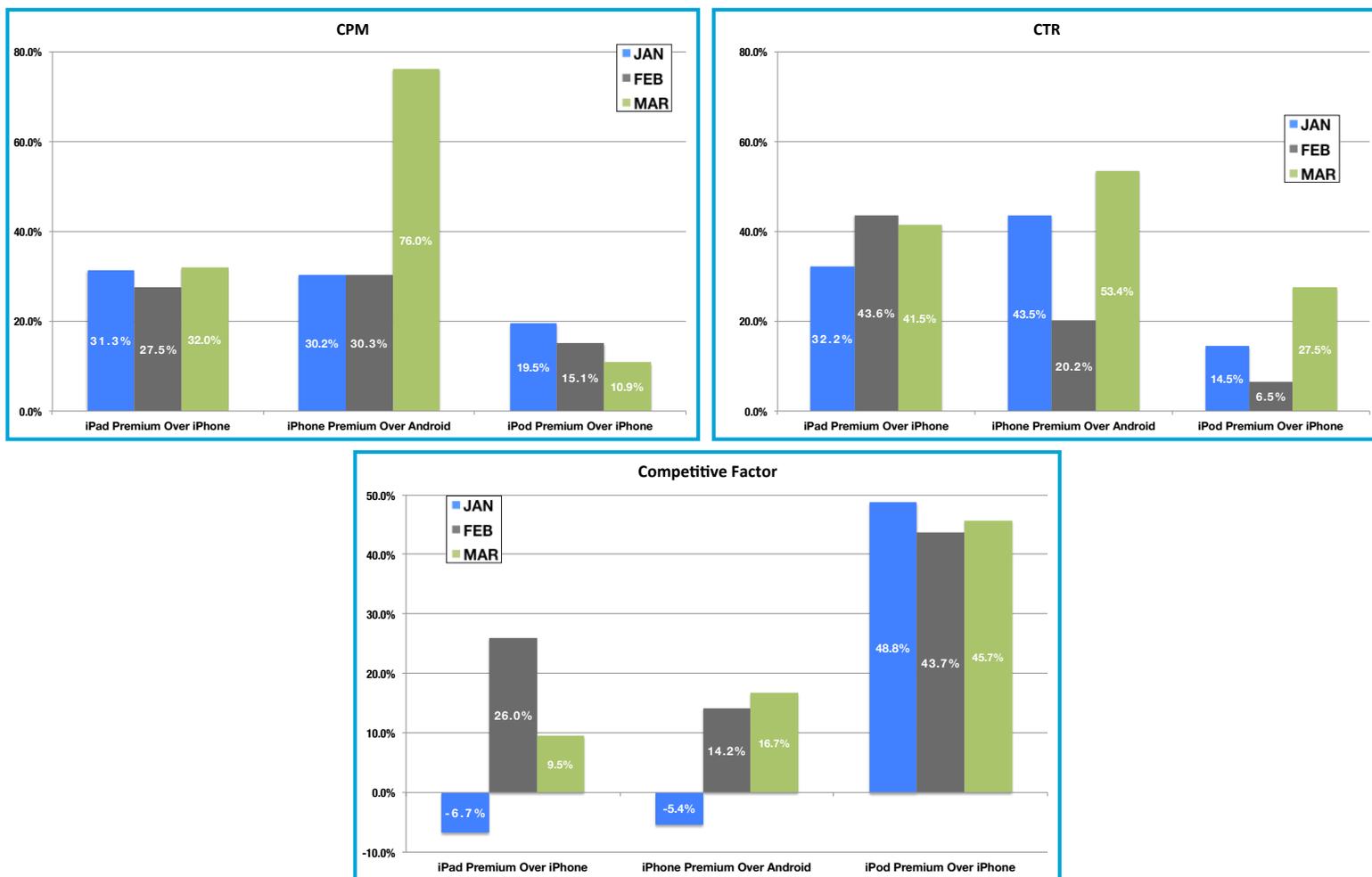
After a brief CPM and CTR declines in February, all three iOS devices recouped their losses and exceeded January metrics in March. The unprecedented March ad spend growth, which carried Q1 after just a couple of weeks, was powered by both the addition of brand budgets, and the flight of ad spend back to higher priced and higher quality iOS inventory.

## Demand Premiums Also Sustained at Device Level

It is important to note that, Android tablets are not a part of this section because they account for less than 1% of ad spend. This means tablets trends are essentially limited to iPads. Impressions that support brand advertiser engagement needs and have proven effectiveness, retained higher demand at premium prices in Q1 2013. Below are three charts showing iPad, iPhone and iPod maintained a device monetization premium as budgets inevitably sought out inventory delivering better performance results.

### Ad Metric Comparisons

1/1/2013 - 3/31/2013

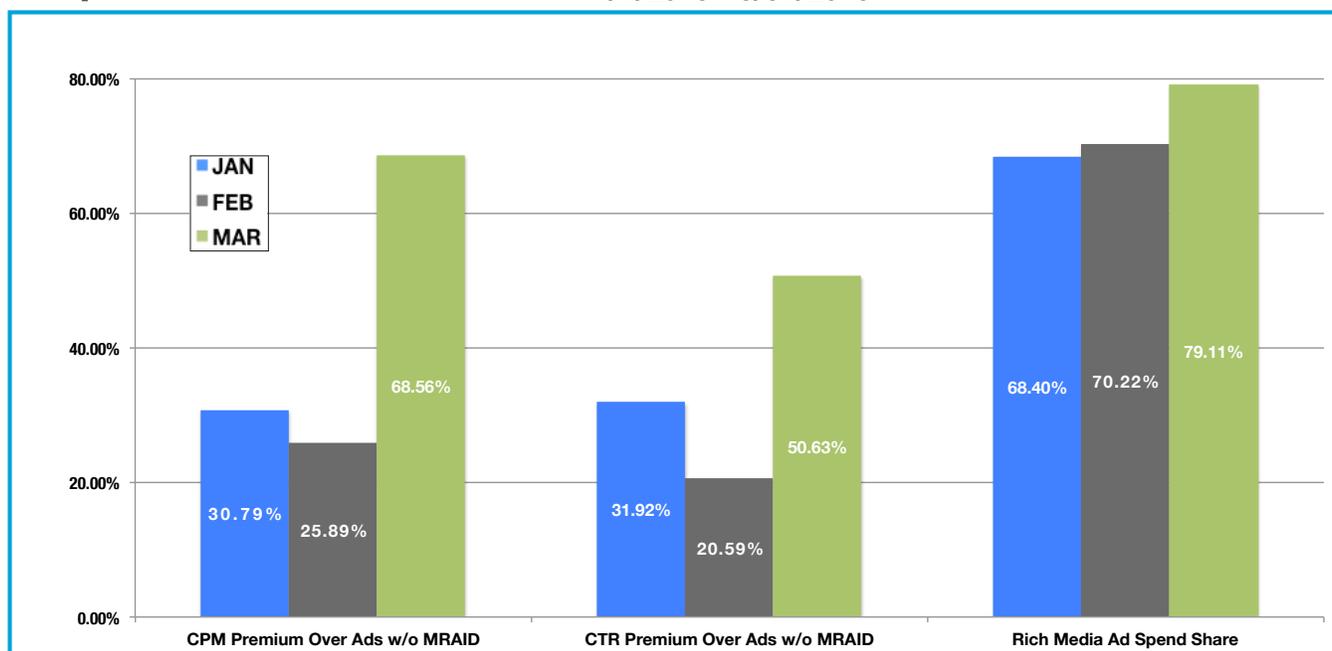


iPods' premium over iPhone, often iPad too, has another factor contributing to the gap. While the impressions deliver high conversion rates, demand for the inventory and price points are also impacted by supply scarcity. iPod impressions are declining. Users are replacing the device with Smartphones and tablets.

## Demand Shifted to More Engaging and Interactive Ad Units

Ad budget overwhelmingly sought out more engaging and effective ad units. Just a couple of years ago, the viability of mobile ad formats outside of standard static banner ads were considered limited to custom direct sold brand campaigns. MRAID supported ad impressions accounted for almost 80% of ad spend. Rich media and iPhone were the only ad impression segments that increased ad spend share in both February and March.

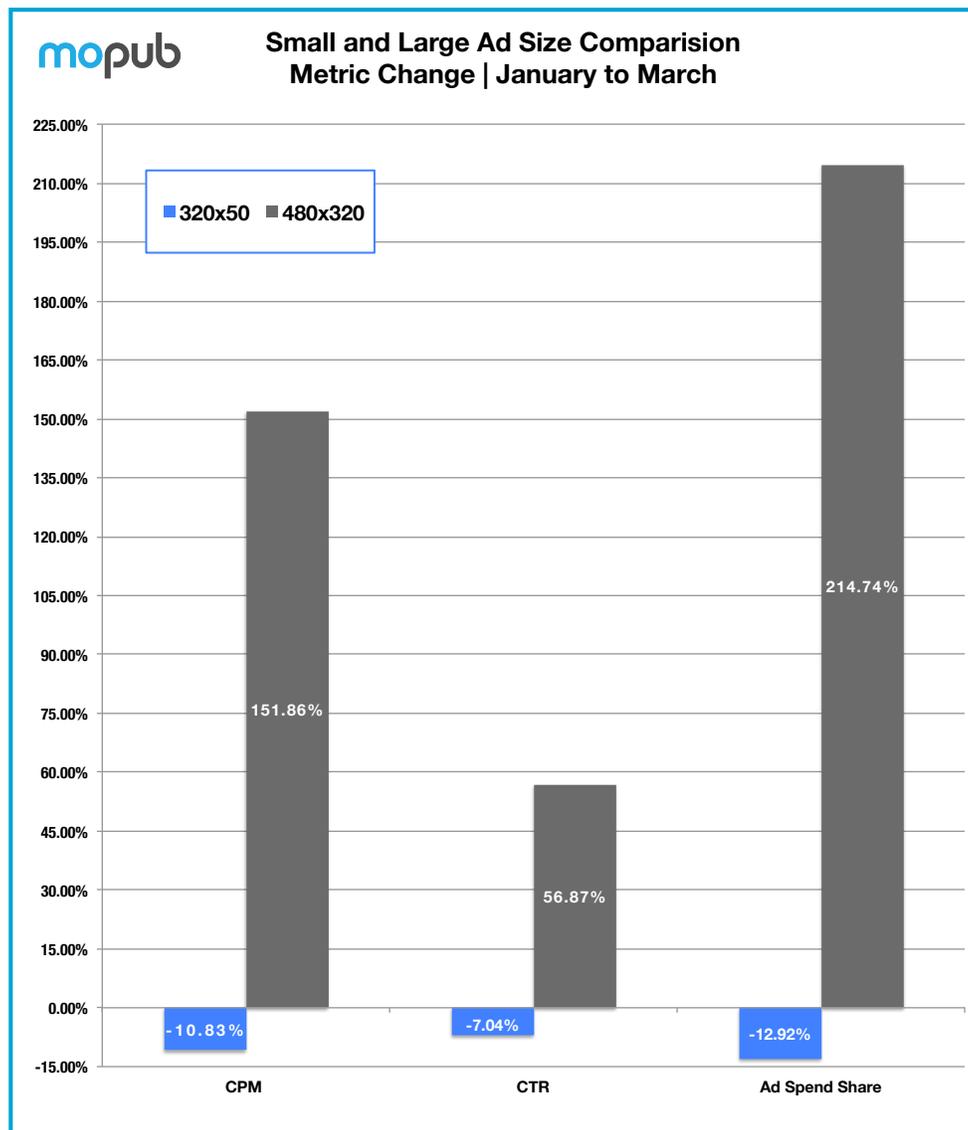
**Rich Media | Static Banner  
Ad Metric Comparison**  
1/1/2013 - 3/31/2013



However, most of the rich media ad spend share overlaps with iPhone ad spend share. The inability for Android to capitalize on increased value generated by rich media exposes a major issue that will need to be addressed. Since Android device market share is growing faster than iOS, this will impact the larger mobile industry. There is clearly an opportunity for other ad formats that perform well across both platforms. It is likely that many players in the mobile ad ecosystem will be investing in and focused on solutions to this challenge.

## Adoption of Larger Ad Sizes Grew Exponentially

It is not an accident that Facebook increased the size of content in its news feed as it focused on integrated advertising into that experience. The value created by larger ad size formats is similar to rich media. However, the impact of larger ad sizes in Q1 2013 was significantly higher than rich media. The CTR of 480X320 ads were almost 10X the CTR of smaller standard 320X250 ad units. The disparity between what is the most basic small ad size format and the recently supported interstitial sized ad units increased exponentially from January to March. A larger image has a bigger impact due to its ability to attract attention.

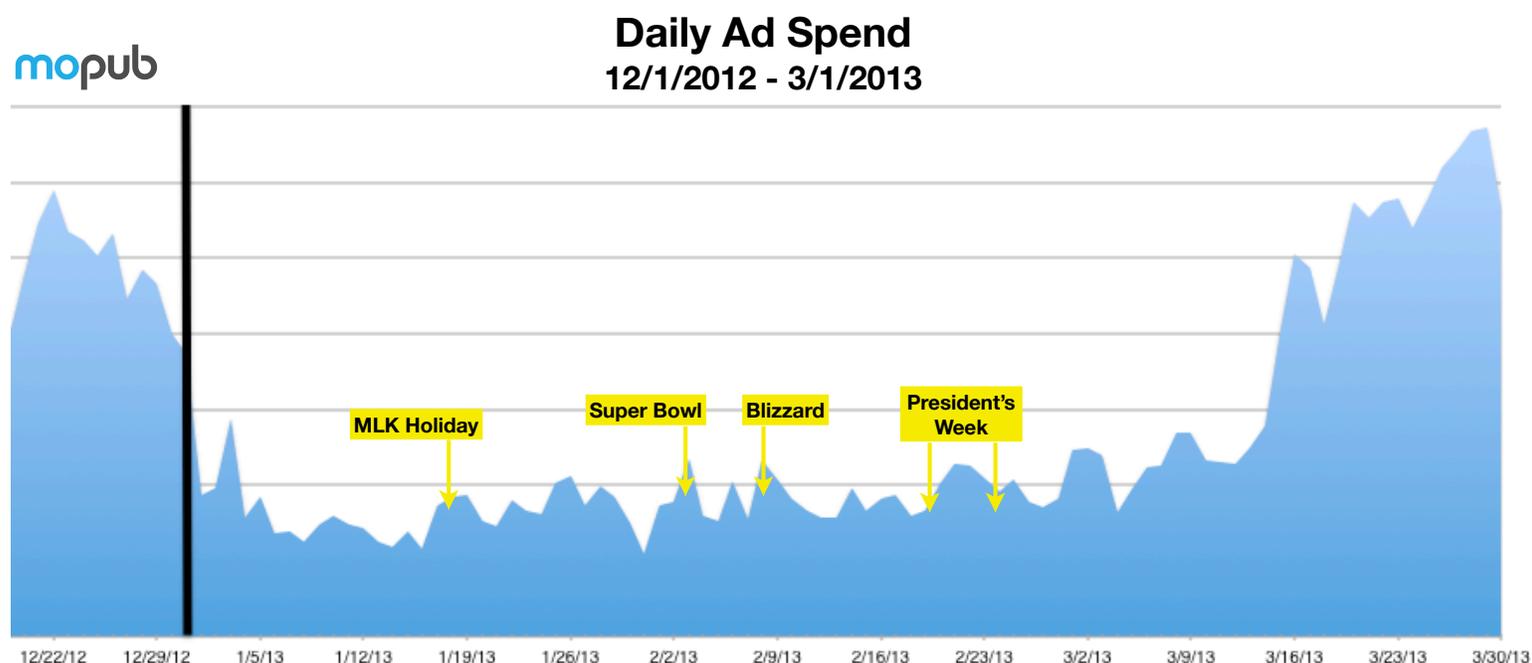


There was also another factor driving the performance of the 480X320. Many game developers discovered that turn based game dynamics provided an experience that aligned with larger sized interstitial ad formats. As many of these games achieved significant penetration and usage, the trend over Q1 2013 exceeded the impact that an image size could generate.

## Opportunistic Tactics Gained Traction Throughout Q1 2013

The previous ad spend behavior sought out inventory based predominantly upon the characteristics of various ad impressions. However, several behavior patterns occurred aligning with bidding with time instead of impression characteristics. These opportunistic tactics leveraged insights about mobile user behavior during severe weather storms, holidays and live mass media events.

Revisiting the Q1 2013 daily ad spending chart reveals several external events during the down cycle that can be identified as steep growth peaks.



One of the most interesting tactics occurred from February 6th to February 8th. Ad spend increased significantly, before and during the massive snowstorm that impacted most of the east coast of the United States.

Logically, this event would provide an opportunity for insurance companies to deliver a relevant message about the value of several homeowner products. Similarly, commerce apps that enable the user to avoid exposure to weather conditions, by having purchases made from the app delivered to a residence, would be more valuable and particularly relevant during those days.

# *Appendix*

## *Reference Data Tables*

## Metric Monthly Averages and Trends: OS

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CPM ANALYSIS			
OS	JAN	FEB	MAR
iOS	\$0.82	\$0.69	\$0.95
Android	\$0.58	\$0.50	\$0.50
OS	CHANGE JAN-FEB	CHANGE FEB-MAR	CHANGE JAN-MAR
iOS	-16.25%	37.14%	14.86%
Android	-14.40%	1.04%	-13.51%

CTR ANALYSIS			
OS	JAN	FEB	MAR
iOS	1.77%	1.53%	1.93%
Android	1.12%	1.16%	1.14%
OS	CHANGE JAN-FEB	CHANGE FEB-MAR	CHANGE JAN-MAR
iOS	-13.73%	26.62%	9.23%
Android	2.81%	-1.84%	0.97%

COMPETITIVE FACTOR			
OS	JAN	FEB	MAR
iOS	5.00	4.35	4.45
Android	5.15	3.49	3.61
OS	CHANGE JAN-FEB	CHANGE FEB-MAR	CHANGE JAN-MAR
iOS	-13.04%	2.46%	-10.90%
Android	-32.20%	3.41%	-29.89%

SHARE OF AD SPEND			
OS	JAN	FEB	MAR
iOS	74.01%	71.83%	75.67%
Android	25.94%	28.12%	24.29%
OS	CHANGE JAN-FEB	CHANGE FEB-MAR	CHANGE JAN-MAR
iOS	-2.95%	5.35%	2.24%
Android	8.38%	-13.60%	-6.36%

## Metric Monthly Averages and Trends: Device

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CPM ANALYSIS			
Device	JAN	FEB	MAR
iPhone	\$0.75	\$0.65	\$0.88
Android	\$0.58	\$0.50	\$0.50
iPad	\$0.99	\$0.82	\$1.16
iPod touch	\$0.90	\$0.74	\$0.98
Android tablet	\$0.69	\$0.51	\$0.53
Device	CHANGE JAN-FEB	CHANGE FEB-MAR	CHANGE JAN-MAR
iPhone	-14.24%	36.48%	17.1%
Android	-14.31%	1.03%	-13.4%
iPad	-16.73%	41.34%	17.7%
iPod touch	-17.42%	31.52%	8.6%
Android tablet	-24.85%	2.28%	-23.1%

CTR ANALYSIS			
Device	JAN	FEB	MAR
iPhone	1.62%	1.39%	1.74%
Android	1.13%	1.16%	1.14%
iPad	2.14%	2.00%	2.47%
iPod touch	1.85%	1.48%	2.22%
Android tablet	0.74%	0.84%	1.01%
Device	CHANGE JAN-FEB	CHANGE FEB-MAR	CHANGE JAN-MAR
iPhone	-13.90%	25.19%	7.8%
Android	2.81%	-1.95%	0.8%
iPad	-6.49%	23.35%	15.3%
iPod touch	-19.86%	49.83%	20.1%
Android tablet	13.20%	20.95%	36.9%

COMPETITIVE FACTOR			
Device	JAN	FEB	MAR
iPhone	4.87	3.98	4.21
Android	5.15	3.49	3.61
iPad	4.55	5.02	4.61
iPod touch	7.25	5.73	6.13
Android tablet	5.36	3.86	4.10
Device	CHANGE JAN-FEB	CHANGE FEB-MAR	CHANGE JAN-MAR
iPhone	-18.21%	5.64%	-13.6%
Android	-32.23%	3.39%	-29.9%
iPad	10.42%	-8.14%	1.4%
iPod touch	-20.99%	7.07%	-15.4%
Android tablet	-27.92%	6.02%	-23.6%

SHARE OF AD SPEND			
Device	JAN	FEB	MAR
iPhone	44.53%	47.23%	50.06%
Android	25.73%	27.93%	24.13%
iPad	22.26%	17.69%	19.35%
iPod touch	7.22%	6.91%	6.27%
Android tablet	0.21%	0.19%	0.16%
Device	CHANGE JAN-FEB	CHANGE FEB-MAR	CHANGE JAN-MAR
iPhone	6.05%	5.99%	12.4%
Android	8.53%	-13.60%	-6.2%
iPad	-20.52%	9.39%	-13.1%
iPod touch	-4.34%	-9.31%	-13.2%
Android tablet	-10.49%	-12.74%	-21.9%

# Monthly Metric Averages and Trends: Rich Media



CPM ANALYSIS			
Has MRAID	JAN	FEB	MAR
Yes	\$0.81	\$0.67	\$0.89
No	\$0.62	\$0.53	\$0.53
Delta	30.79%	25.89%	68.56%
Has MRAID	CHANGE JAN-FEB	CHANGE FEB-MAR	CHANGE JAN-MAR
Yes	-17.83%	32.88%	9.19%
No	-14.63%	-0.76%	-15.28%

CTR ANALYSIS			
Has MRAID	JAN	FEB	MAR
Yes	1.71%	1.48%	1.82%
No	1.30%	1.23%	1.21%
Delta	31.92%	20.59%	50.63%
Has MRAID	CHANGE JAN-FEB	CHANGE FEB-MAR	CHANGE JAN-MAR
Yes	-13.23%	22.62%	6.40%
Yes	-5.07%	-1.84%	-6.82%

COMPETITIVE FACTOR			
Has MRAID	JAN	FEB	MAR
Yes	4.87	4.18	4.26
No	5.33	3.80	3.87
Delta	-8.78%	9.93%	9.98%
Has MRAID	CHANGE JAN-FEB	CHANGE FEB-MAR	CHANGE JAN-MAR
Yes	-14.10%	1.85%	-12.52%
No	-28.72%	1.79%	-27.44%

SHARE OF SPEND			
Has MRAID	JAN	FEB	MAR
Yes	68.40%	70.22%	79.11%
No	31.60%	29.78%	20.89%
Delta	116.42%	135.79%	278.81%
Has MRAID	CHANGE JAN-FEB	CHANGE FEB-MAR	CHANGE JAN-MAR
Yes	2.67%	12.67%	9.19%
No	-5.77%	-29.87%	-15.28%

# Monthly Metric Averages and Trends: Ad Format



CPM ANALYSIS			
Ad Sizes	JAN	FEB	MAR
320x50	\$0.61	\$0.53	\$0.54
728x90	\$1.76	\$0.77	\$0.83
320x480	\$0.93	\$1.46	\$1.86
300x250	\$0.84	\$0.64	\$0.62
480x320	\$1.61	\$1.24	\$4.05
768x1024	\$2.26	\$2.19	\$3.37
1024x768	\$2.86	\$1.88	\$3.24
Ad Sizes	CHANGE JAN-FEB	CHANGE FEB-MAR	CHANGE JAN-MAR
320x50	-13.31%	2.86%	-10.83%
728x90	-56.15%	7.77%	-52.75%
320x480	56.63%	27.92%	100.37%
300x250	-24.52%	-2.63%	-26.50%
480x320	-22.83%	226.38%	151.86%
768x1024	-3.04%	53.54%	48.87%
1024x768	-34.35%	72.54%	13.27%

CTR ANALYSIS			
Ad Sizes	JAN	FEB	MAR
320x50	1.21%	1.15%	1.13%
728x90	1.95%	1.82%	1.68%
320x480	4.25%	3.29%	3.57%
300x250	0.60%	0.62%	0.71%
480x320	6.91%	5.50%	10.84%
768x1024	8.33%	7.65%	8.09%
1024x768	12.89%	10.63%	8.07%
Ad Sizes	CHANGE JAN-FEB	CHANGE FEB-MAR	CHANGE JAN-MAR
320x50	-5.64%	-1.49%	-7.04%
728x90	-6.47%	-7.58%	-13.56%
320x480	-22.62%	8.50%	-16.03%
300x250	3.46%	13.55%	17.48%
480x320	-20.40%	97.08%	56.87%
768x1024	-8.13%	5.75%	-2.85%
1024x768	-17.53%	-24.08%	-37.39%

COMPETITIVE FACTOR			
Ad Sizes	JAN	FEB	MAR
320x50	5.32	3.90	4.06
728x90	4.47	5.18	4.83
320x480	4.62	4.20	4.48
300x250	3.75	3.87	4.40
480x320	2.66	2.56	2.40
768x1024	1.86	2.59	3.11
1024x768	2.09	2.32	2.77
Ad Sizes	CHANGE JAN-FEB	CHANGE FEB-MAR	CHANGE JAN-MAR
320x50	-26.68%	4.06%	-23.70%
728x90	15.97%	-6.82%	8.06%
320x480	-8.92%	6.65%	-2.86%
300x250	3.20%	13.54%	17.17%
480x320	-3.86%	-5.92%	-9.56%
768x1024	38.81%	20.35%	67.06%
1024x768	10.68%	19.55%	32.32%

SHARE OF AD SPEND			
Ad Sizes	JAN	FEB	MAR
320x50	60.58%	66.30%	52.75%
728x90	10.90%	14.44%	10.67%
320x480	18.34%	11.92%	18.82%
300x250	5.37%	3.50%	2.41%
480x320	2.57%	1.78%	8.09%
768x1024	1.90%	1.75%	6.06%
1024x768	0.34%	0.30%	1.19%
Ad Sizes	CHANGE JAN-FEB	CHANGE FEB-MAR	CHANGE JAN-MAR
320x50	9.45%	-20%	-12.92%
728x90	32.53%	-26%	-2.05%
320x480	-35.02%	58%	2.61%
300x250	-34.84%	-31%	-55.19%
480x320	-30.60%	353%	214.74%
768x1024	-8.11%	247%	218.46%
1024x768	-10.61%	294%	251.78%