From:	Jonathan Bellack [jbellack@google.com]
Sent:	5/10/2018 9:28:03 PM
To:	Aparna Pappu [apappu@google.com]
CC:	Nirmal Jayaram [nirmaljayaram@google.com]; Carlos Kirjner [kirjner@google.com]; Ajay Kumar Bangla
	[ajaybangla@google.com]; Ali Nasiri Amini [amini@google.com]; Eisar Lipkovitz [eisar@google.com]; Payam Shodja
	[pshodjai@google.com]; Vivek Rao [vivekrao@google.com]; Ted Lazarus [tlazarus@google.com]; Duke Dukellis
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Subject:	Re: Margin changes

Happy to

On Thu, May 10, 2018, 4:07 PM Aparna Pappu apappu@google.com wrote: JB - might be worth having nirmal talk thru Poirot with you - that alone has shifted spend to AdX

On Thu, May 10, 2018 at 4:02 PM, Nirmal Jayaram <<u>nirmaljayaram@google.com</u>> wrote: We focused mostly on what portion of DBM 3PE spend will shift to Adx if we stopped buying 3PE, and the impact on profit. We didn't look at the second order effect that you mentioned.

On Thu, May 10, 2018 at 12:50 PM, Jonathan Bellack <<u>jbellack@google.com</u>> wrote: Cool. Does that think through the 2nd order effects -- such as what happens to 3PE win rates vs AdX due to loss of DBM auction pressure? (Since DBM is 20-30% of demand on most of the 3PEs)

-- Jonathan Bellack / jbellack@google.com Director, Product Management / Publisher Ad Platforms

On Thu, May 10, 2018 at 3:39 PM, Nirmal Jayaram <<u>nirmaljayaram@google.com</u>> wrote: Max, Nitish and I looked at what happens if DBM entirely stops buying on 3PE (as a thought exercise). I'll summarize the observations and get back.

On Thu, May 10, 2018 at 12:29 PM, Jonathan Bellack <<u>jbellack@google.com</u>> wrote: Intuitively we know that moving \$1 from DBM-3PE to DBM-AdX gets us a 20% revshare we didn't have before, so it should deliver a ton. The bigger question is how to do that, and whether we've tested any. Questions like: is there a defensible way to change DBM buying strategy to move more spend from 3PE to AdX? How much lift do publishers actually get today by calling DBM multiple times through different 3PE, relative to running all of DBM through AdX? Can we build features or set commercial terms that give pubs & buyers more incentive to run DBM through AdX instead of through 3PE? Should we change the DBM buying strategy entirely for emerging businesses like mApp, instead of recreating the Web's 3PE marketplace? We're just starting to pivot toward these questions on the sellside, there's a lot more to do.

-- Jonathan Bellack / jbellack@google.com Director, Product Management / Publisher Ad Platforms

On Thu, May 10, 2018 at 3:19 PM, Aparna Pappu <a>apappu@google.com wrote:



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BTW am a big fan of doing it no push back here (modulo legal as JB said) so definitely not worried about amount just thought it would be bigger.

Thoughts on the DBM displacement question?

On Thu, May 10, 2018 at 3:17 PM, Nirmal Jayaram <<u>nirmaljayaram@google.com</u>> wrote: Hi Aparna, we can try to optimize revenues and margins on AWBid differently. We have been running an experiment where we have been targeting roughly 5% more margin. It's showing -\$2M revenue and +\$15M profit (on about \$450M revenue).

Regarding the upside, other than the potential to extend to apps (easy on DRX and doable on Admob), we explored one way to increase margins at the expense of revenue, but presumably there could be more optimal ways, which we have to keep researching (not guaranteed). The \$75M does seem low, but it's on a \$1200M base profit on DRX web.

On Thu, May 10, 2018 at 12:13 PM, Jonathan Bellack <<u>jbellack@google.com</u>> wrote: On sensitivity analysis related to pricing changes -- Gabe and I connected earlier this week and plan to work together on a few different cuts after Suresh's offsite.

Carlos, on why we wouldn't just do this -- per Aparna, there are reputational and potentially legal concerns here related to past public statements about our margin, plus lack of certainty about what our large partners *think* their AdX contract means with respect to AdWords demand.

And overall sellside pricing -- we're all aligned on doing a general update. We're on sellside calendar for June 27 at this point, which is far out due to different exec OOO schedules; we're looking at possibility to pull it up to May 30.

-- Jonathan Bellack / jbellack@google.com Director, Product Management / Publisher Ad Platforms

On Thu, May 10, 2018 at 2:55 PM, Aparna Pappu apappu@google.com wrote: I think JB has made this point before it requires letting the large partners know because apparently we already let them know it is 32 with 20% on sellside and rest on buyside so unilateral change is going to be bad for us -I know JB is working on the pricing strategy and has signed up for a review. Outside of external reaction (and solvign for that) not sure if there is a downside

On Thu, May 10, 2018 at 2:53 PM, Carlos Kirjner <<u>kirjner@google.com</u>> wrote: Is there any downside we could be missing here and if we were to do this, is there any reason why we could not return to status quo if we changed our minds?

On Thu, May 10, 2018, 10:56 AM Ajay Bangla <<u>ajaybangla@google.com</u>> wrote: Summary of our findings related to varying AdWords buy side margins:

• **Coverage**: Our analysis and experiments were on DRX web publishers only (for simplicity). These can be easily extended to DRX App publishers. Once AdMob Bernanke is completed, we can also do this on AdMob publishers. We can't do this on Adsense publishers at this point.

• Increasing margins: At 20% buy side margin, revenue goes down -0.9% (-\$53M) but the overall (buy+sell side) profit increases 6.5% (\$70M). At 17.5%, revenue drops -0.4% (-\$24M) and profit increases

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4% (\$40M). At these margins, for every dollar in lost revenue we gain much more than a dollar in profit. Increasing margin beyond 20% starts to have a big revenue hit. The decrease in AdWords spend is mitigated to some extent by increases spend from other buyers.

• **Decreasing margins**: Decreasing buy side margin costs profit without generating a lot of additional revenue.

Details are available in this report.

Thanks,

Ajay

On Thu, May 10, 2018 at 10:40 AM, Nirmal Jayaram <<u>nirmaljayaram@google.com</u>> wrote: + Ajay, who has completed the analysis on the impact of margin changes and will share the results soon.

Thanks

On Thu, Apr 12, 2018 at 12:07 PM, Carlos Kirjner < kirjner@google.com > wrote:

@Ali you are right and I am wrong (in writing!). I will learn the lesson and step back from specificity. The idea is to use a mechanism to reveal publisher preferences/demand by trying to reward publishers that take a lower rev share. I thought some sort of reverse auction could work but looking at excel and trixes for many years has clearly made me unable to think this through correctly.

On Thu, Apr 12, 2018 at 9:26 AM, Ali Nasiri Amini <<u>amini@google.com</u>> wrote: @Carlos

Regrading your example that we have two ads, one worth \$1 and one worth \$9. If these advertiser are not budget constrained then \$9 ad competes in every auction and wins over \$1 ad so Bob and Alice will make \$9*0.68 = \$6.12. However, if \$9 ad is budget constrained at a level that it competes only 50% of times then your number will hold (ignoring the second price dynamic). So the way that I understand your proposal is that why do not we leverage our power over "limited demand" (i.e. budget constrained ads) to negotiate better margin and shift limited demand to areas that we have better margin. I think higher Google profit and better margin. This is an interesting idea. However, execution of this idea requires changes in our budget system that is a bit complex. Note that display leverages search-ad technology when it comes to budgeting and in search-ad we are the publisher so the the design is agnostic to margin. I need to think more about the second order effect of such a change.

@Eisar

A few months ago we talked about buy-side, sell-side, and "no-side" margin (A better name for no-side could be "arbitrage margin"). While in GDN there is no distinction between buy-side and arbitrage margin, we may need to separate buy-side and "arbitrage" margin in DBM as two entities. As you said, for now we have the marching order to get the data for GDN on Adx.

On Thu, Apr 12, 2018 at 8:52 AM, Eisar Lipkovitz <<u>eisar@google.com</u>> wrote: Jonathan and I spoke and now I understand all the various nuances.

My original goal was scoped down to making "GDN" buyside margin experiment, let's stick to that, and if it's easiest to only do it on AdX that's fine.

The discussion here showed that we have work cut out for us on revamping our sell-side contracts and relationships with pubs, which JB is going to drive forward in Q2.

Putting it all together [and adding Payam&Vivek], I see three distinct tracts in the pricing/margin conversations that obviously interact with each other

1) Outcome (non-CPM) based products buy side margin - this thread originally scoped down

2) Sell side margin/contracts

3) DBM - some of it is covered by introducing #1 into DBM so the important remaining piece is more around a-la carte pricing for new features even for CPM based products.

Let's not continue this over e-mail.

Nrimal/Ali have marching orders to get us data on #1.

JB is going to drive #2.

Payam, please work out an offline process to continue the discussion on #3 and present (in Q2) where we are.

On Thu, Apr 12, 2018 at 7:01 AM, Eisar Lipkovitz <<u>eisar@google.com</u>> wrote: JB,

My starting point in this discussion is that sell-side isn't the area where we can sensibly increase our margin and we should focus on the buy side.

That said, I'm now thinking we certainly need to do few things and I want to do them well, systematically and everywhere, which I don't consider boiling the ocean

1) Unify our sell side relationship/contracts with the publisher - we should separate out situations contractually and clearly between (A) Traditional AFC where we don't submit a bid and own the inventory (B) We are demand source into a different platform (including homemade) (C) DRX like solution where we bundle platform + demand.

2) Make sure all new contracts for A+B+C gives us the ability to play with margin and solve Nirmal's inability to operate things like Bernanke on AFC, etc..

3) Consider another model for the Pub, on an opt-in basis that gives us the ability to do this reverse auction along the lines Carlos proposes.

I would like to point out that the AFC contracts do have this advantage of not being on the hook for various ways we credit advertisers including outages, where current revshare approach means we don't need to pay pubs for oppurtunity cost. This is clearly valuable, but happens rarely so we should be able to model out the actual value here and decide to give it up and effectively be self-insured.

I'm not sure we actually need a A+B, maybe there is a way to unify them. That said if we decide to keep A we would need tight policies (even if not enforceable) around A being used only when exclusive or whatnot.

My general preference is that A+B don't have transparent margins at all. Simply put we should have two business: Network (A+B) and Platform/Demand bundle (C). The latter requires transparency on sell-side margins but can still have an opt-in knob (like #3) to increase flexibility to improve yield.

Can we survey the Network market, look at CRTO and see what other networks are doing to borrow different approaches?

On Thu, Apr 12, 2018 at 5:59 AM, Jonathan Bellack <jbellack@google.com > wrote: +Brad, Ted

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Great timing, we've been having a lot of conversations (Duke, Jim Giles, Payam, & others) about the need to update our pricing on several dimensions. I know we don't want to boil the ocean, but there are historical and legal matters here that make distilling this to an email decision difficult. I'd propose to (quickly) prepare a briefing doc with our pricing history, points of tension, and some options around quick wins vs larger changes. Then could we find an hour soon to discuss?

Also, Carlos -- I would be a huge fan of putting in some structure around pricing. The best practice I have seen before is regular pricing review meetings with some kind of standard analyses (price-value maps, rate card vs discount, regional breakdowns, etc). We haven't done that in years, but I think the time is right given how much change we are going through right now.

Also just for one point of quick reference, we publicly revealed the AdSense revshare in 2010, and it is still in our help center, etc.:

https://adsense.googleblog.com/2010/05/adsense-revenue-share.html?m=1

https://support.google.com/adsense/answer/180195?hl=en

On Wed, Apr 11, 2018, 8:18 PM Eisar Lipkovitz <<u>eisar@google.com</u>> wrote: [adding Aparna & Bellack, I'll forward you the entire thread separately]

On Wed, Apr 11, 2018 at 4:57 PM, Carlos Kirjner < kirjner@google.com > wrote:

On Wed, Apr 11, 2018 at 4:44 PM, Eisar Lipkovitz <<u>eisar@google.com</u>> wrote:

On AFC we don't buy impressions (and sell clicks) we actually do a revshare, effectively paying publishers 68% of the revenue we charged advertisers for clicks that landed on their site.

i have a question here (and forgive me as I am still learning this and even the technical lingo is new). I assume the 68% is contractual and hence not changeable by moving knobs in the auction/bidding etc.

Yes, our AFC contracts say we share the revenue we generate from those ads we put on your inventory. It's a classic network business.

That said, I have no idea what Criteo's contract look like and it's worth exploring other paths.

The big difference between AFC and pretty much the rest of the market, is that we don't provide a price per impression. We essentially take over the inventory and pay out later based on the contract terms.

But structurally, is it a buyers market for all or a segment of the market? In other words, is there are a significant number of inventory slots that go unmonetized (e.g., because floors are too high vs demand/bids)?

The traditional AFC pubs are ones that essentially use us exclusively, so there is no point in submitting a bid and we have 100% fill.

However there are many pubs who use AFC as a source of demand, i.e. they put a tag on the page or into their mediation platform, sometimes even as a line item in DFP.

I still think, but not sure, that in those cases we don't submit a bid. The publisher can observe what is the average price we pay out, usually done by scrapping our reporting UI and decide what is the average value AFC provides and decides where to put it in the mediation chain.

We are building demand product as a way to access inventory we don't have and secondarily to replace all these pre-existing setups called sometimes AdX only (not DRX) or these AFC pubs that aren't exclusive.

This thread makes me wonder whether we can and should keep the existing AFC terms only for exclusive pubs.

You should do a review with Suresh about the entire area of bidding, ecosystems, bernanke, Poirot, etc...

Please invite Carlos and Gabe, they'll benefit greatly from it.

Please! If there is stuff for me to read that is off the shelf and can be shared in <20 sec, please share that too. I need (many) more than one exposure to learn this stuff.

LISCI

"Interested in opportunities in Display Ads? : go/dvaa-mobility"

https://memegen.googleplex.com/5246758434635776

--Eisar

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