WHY ADVERTISING THROUGH REAL-TIME BIDDING NEEDS A NEW BUYING MODEL

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For decades, CPM pricing controlled how all advertising was bought and sold and how different media properties were compared. Today's real-time advertising landscape is a significant opportunity, which can help advertisers reach more targeted audiences, gain efficiency, and improve ROI.

Yet most advertisers do not extract full value from real-time bidding (RTB) because it requires moving beyond CPM to a new model for buying.

This white paper describes how RTB has changed the world of online advertising, and how media buying must evolve to take advantage of the huge opportunities presented by this revolution.

In today's RTB world, each impression is valued individually, and paying more for higher-quality impressions can actually improve campaign results.

Quantcast has found that paying more for a higher-quality impression through RTB can be up to 100X more effective at influencing consumer behavior. This pattern applies across industries, customers, and campaigns. This means that in today's real-time advertising world, focusing too much on CPM can actually limit an advertiser's results.

To truly benefit from RTB, buyers must shift focus from the cost of impressions to their value. Ultimately, many advertisers should change their fundamental unit of pricing from CPM to cost per action (CPA), and understand that lower-priced impressions may not generate the desired results from a campaign.

Both these changes can transform media buying from an adversarial zero-sum game, where one side's gain is the other's loss, to a more collaborative search for value for both buyer and seller.

The Origins of Aggregate-Based Buying

Until recently, all display advertising in print, radio, TV, or online was sold at a cost per thousand impressions (CPM). In this model, the publisher promised to deliver a certain amount of impressions within a set time for a fixed cost. But all the risk was on the buyer.

In a traditional CPM buy, the value generated by any impression was unknown until after the impression was delivered and the campaign results were measured. With no other metric in place, the CPM became the media buyer's prime negotiating point: For a given media partner, the lower the CPM, the lower the advertiser's risk, and the higher the potential gain.

For decades, CPM pricing controlled how all advertising was bought and sold. This aggregate model also created a standardized way to compare properties from different media partners, simply by comparing their CPMs.

As online performance advertising has evolved, the ultimate measure of effectiveness for a given CPM campaign has increasingly become the cost per action (CPA), sometimes calculated as

effective cost per action (eCPA). Each advertiser defines the desired action: A prospect completes a checkout, downloads a coupon, signs up for a test drive, buys an insurance policy, or anything else the advertiser wants to happen.

After calculating the eCPA for each media partner (see sidebar), the advertiser can easily compare the effectiveness of different media buys—even if each one involves a very different CPM.

The aggregate buying model naturally leads to a laser focus on CPM costs during negotiations. If a media buy becomes more **efficient** by reducing the CPM, its **effectiveness** improves in direct proportion. This straight-line reduction in CPA is shown by the line in Figure 1.

Naturally, this leads to negotiation being an important skill for media buyers. If they can negotiate a lower CPM, they also gain a lower CPA. This aggregate buying model worked for many years, until industry innovations finally delivered a faster and more precise way to buy advertising and estimate its value.

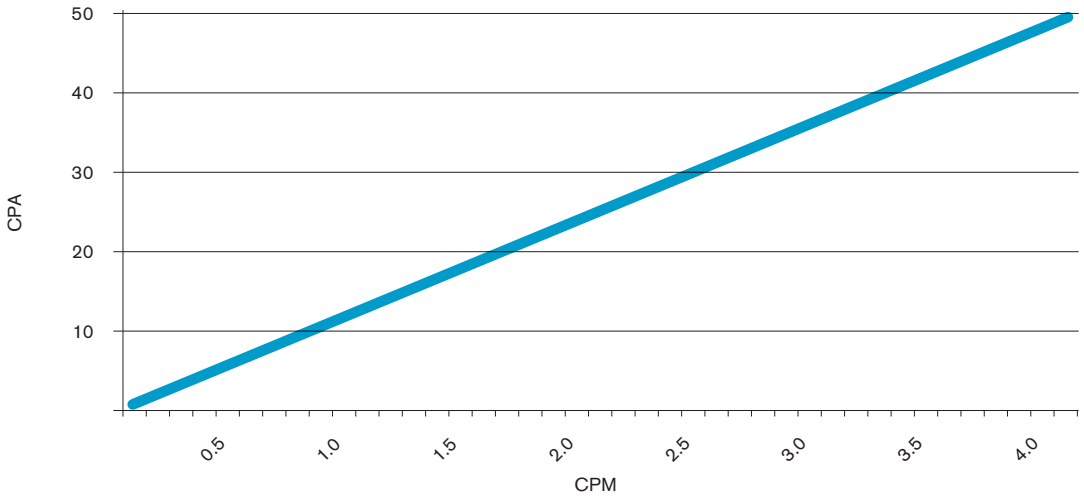

Figure 1.
CPM vs. CPA in Aggregate-based Media Buying
Source: Quantcast, 2012

How to Calculate eCPA

To arrive at the eCPA, divide the total media spend with a given partner by the number of actions attributed to that partner, as follows:

$$\frac{\text{Total media spend with a partner}}{\text{Total actions attributed to that partner}}$$

For example, suppose an advertiser spends $100,000 on a campaign, and generates 10,000 desired actions. The eCPA for that campaign with that partner is $100,000 divided by 10,000, or $10 per action. Of course, to do this calculation, you must track precisely how many actions were prompted by those ads in particular. The process of understanding and allocating influence across advertising partners is called *attribution*.

Moving from Aggregate to Impression Buying

Since it was first introduced in 2009, real-time bidding (RTB) has become a key part of many online campaigns. In fact, IDC projects that Global RTB sales will reach $13.9 billion by 2016 In the U.S. alone, RTB will represent 27 percent of overall online display advertising spending and 78 percent of indirect (not directly sold by a publisher) spending by 2016.

RTB has grown quickly because it creates value for all. RTB can increase yields for media sellers, boost performance for advertisers, and deliver more relevant messages to consumers. This makes it a winning innovation.

Rather than buying a block of impressions on an aggregate basis, with RTB the advertiser buys only the individual impressions they want at a unique price determined for each impression. Just like in Search advertising, an auction is conducted for each impression, and the highest bidder wins the impression. And with RTB, the buyer determines an impression's value before they name the price they're willing to pay for it. Not a big difference, right? Wrong.

Actually, the shift to impression-based buying marks the biggest change that display media buying has ever seen. RTB dramatically shifts the relationship between CPM and CPA, and when buyers approach real-time advertising with the same mindset as for an aggregate buy, they miss the true benefits that RTB-powered advertising can deliver. Let's drill down a little further to see why.

In RTB, Every Impression Has a Unique Value

In the aggregate model, every impression has the same cost (1/1000 of the CPM) and there is no way to align that cost with the expected value of each impression. Not so with RTB, where each impression has both a unique value and a unique cost, based on its predicted ability to compel the viewer to take a desired action. Some actions are more valuable, some consumers will more likely take action and different placements may have varying degrees of influence over consumers. That makes some impressions more valuable than others.

For example, an executive planning a two-week business trip to Brussels will undoubtedly spend more than a student looking for a cut-rate weekend in Vegas. To the right kind of advertiser, an impression delivered to that executive is worth far more than an impression to that student.

Lower CPM ≠ Lower CPA

There are other significant differences between aggregate buying and real-time advertising. In the real-time world, a lower CPM does not necessarily mean a lower CPA. In fact, quite the opposite can be true.

Consider Figure 2, which shows the results from a recent campaign. Each dot represents an impression bought through RTB (or a group of impressions at the same cost). The CPM of each impression is calculated by multiplying its cost by 1,000; these costs are shown on the horizontal axis. The vertical axis shows the resulting CPA in dollars attributed to those impressions.

The solid line shows the trend of the actual CPM against the CPA for each group of impressions. Notice how the dotted line now dips **down** to the right, completely different from the aggregate buying model shown in Figure 1. The conclusion: When an advertiser pays a higher price for the **right** impression, this actually drives down the effective CPA.

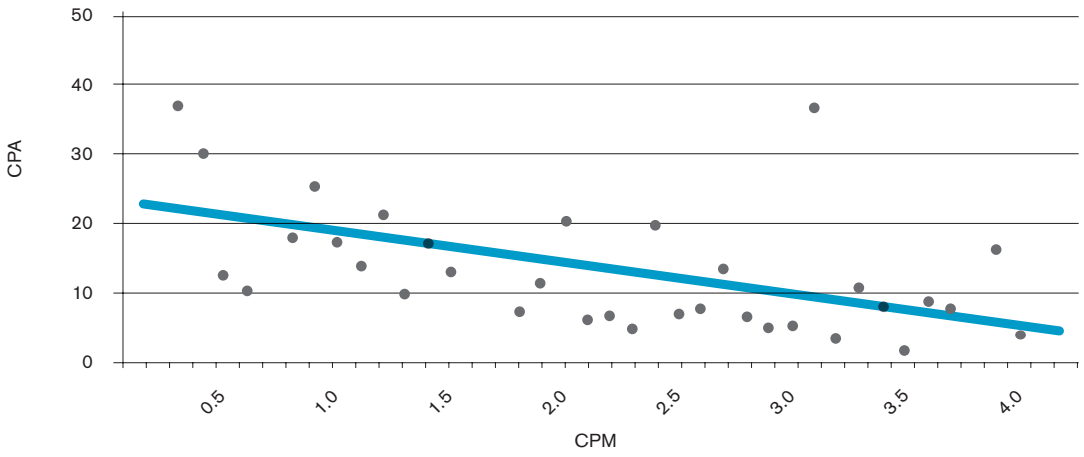

Figure 2.
Impression-Based Buying: Higher-Priced CPM Yields Lower CPA
Source: Quantcast, 2012

What Makes an Impression Valuable?

Many criteria help to determine the value of an impression, including:

- **The viewer of the ad**
- **The site where the impression will appear**
- **The placement of the ad unit**
- **The context of the page**
- **The time of day**
- **How many ads that viewer has already seen**

All these factors—and many more—affect the expected value of the impression. The more value an impression is expected to return to advertisers, the more they will bid for it.[4]

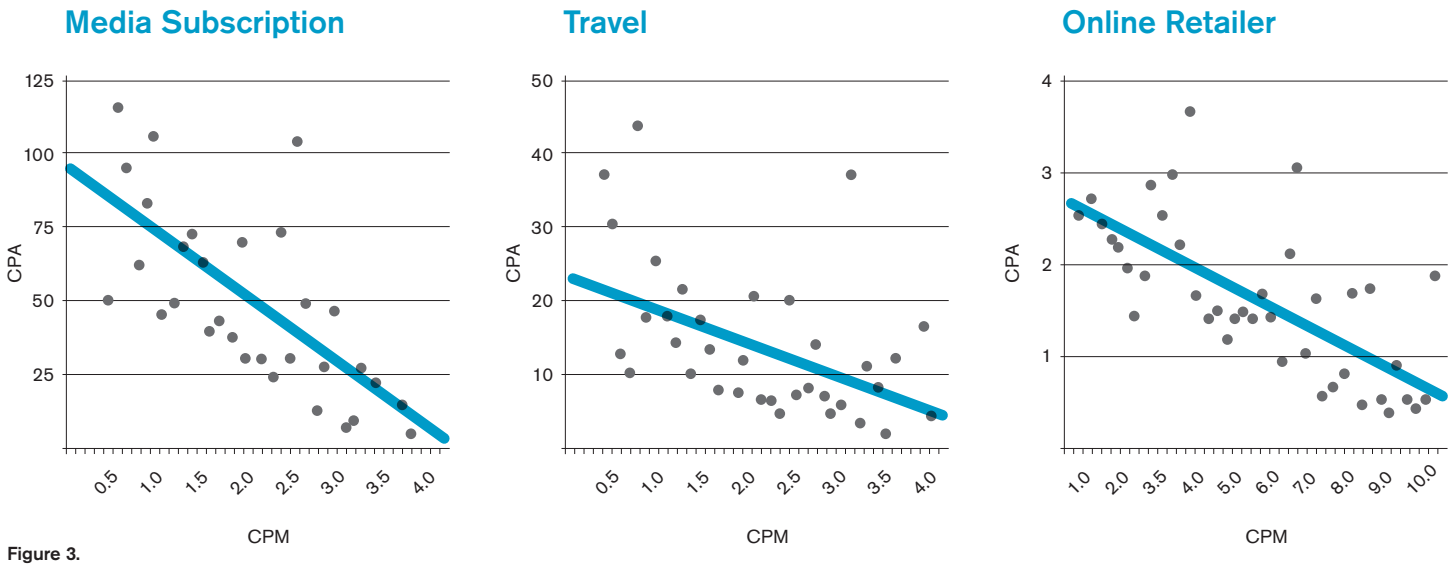

Figure 3.
CPM vs. CPA by Industry Verticals
Source: Quantcast, 2012

Focus on Value, Not Cost

At first glance, this may not seem logical. How can an advertiser pay more, instead of paying less, and still come out on top? Consider how understanding the characteristics of the user, as well as the time of day and the nature and context of the site, can boost the relevance of a particular ad. Clearly, some impressions move certain consumers more than others. And those powerful impressions are worth more to any advertiser seeking to reach those consumers. So the right advertiser can gain better results by bidding more to secure the more valuable impressions.

This pattern is not isolated to this one campaign. In fact, this is the norm we have seen repeated in campaigns across all industry verticals, as shown in Figure 3. In some cases, higher-priced impressions have been 100X more effective at influencing consumer behavior. In every case, the same trend is evident: A higher CPM is linked to lower CPA.

Of course, this doesn't mean a buyer should simply pay a higher CPM. Rather, this shows that media buyers should shift their focus from cost to value. Too many RTB buyers focus on cost, set a CPM cap on their bids, and then miss many valuable impressions that could deliver a strong CPA.

A new approach to media buying

For an advertiser with a clear performance goal, shifting to CPA-based buying should generate better results than CPM-based buying. For any campaign where the desired outcome can be clearly measured and fairly attributed, buying by CPA simplifies the transaction, and enables the advertiser to take full advantage of the real-time marketplace.

So why not just switch targets, and negotiate with sellers on CPA rather than CPM? Well, it's not that simple. The guarded style of media buying that persists from the aggregate model is counterproductive to CPA-based buying.

Remember that in the CPM model, the buyer shoulders all the risk. Regardless of the CPA the media delivers, the buyer is on the hook to pay the contracted CPM. Beyond choosing the right media partners, the best way for buyers to reduce their risk is to negotiate a lower CPM. But the seller's goal is to come away with the highest possible CPM.

RTB speeds up decision-making

To take full advantage of RTB, advertisers must evaluate an impression in just a few milliseconds. And they may need to make billions of these decisions every day.

Humans simply can't calculate that quickly. So we rely on computers and software to execute our RTB campaigns. This has led to a major shift for the industry. In the past, the key success factor for aggregate-based buying was negotiating skill. In the RTB world, the key success factor is smart technology that can do precise valuation of individual impressions at lightning speed.

Of course, few advertisers build these systems from scratch. To save time and reduce risk, many advertisers and agencies join forces with third-party firms that provide the necessary data, algorithms, hardware and services to optimize their campaigns and generate breakthrough results.

These oppositional goals result in all the typical posturing, hidden information, and talking at cross-purposes that occur in any zero-sum negotiation, where one side's gain is the other side's loss. For example, sellers tend to protect their true CPM floor, while buyers state a lower CPA than they will accept.

The key to solving this conundrum is honest collaboration to find real value. Buyers should set CPA goals that are genuine and achievable. They should also feel free to modify the CPA based on their desired volumes and underlying business dynamics, such as seasonality, competition, promotions, and so on.

A critical consideration for a CPA-based buy is not just **how much**, but **how many**. Sellers must tell buyers clearly how many actions can be delivered at various CPA levels. Both parties must enter into a new, more collaborative style of negotiations looking for a win-win, not a win-lose.

It's Been Done Before, with Search

This dynamic is not new; this is exactly how advertisers determine how much they pay for Search advertising. Search has come to dominate online advertising for several reasons:

- The real-time nature of the ads makes them highly relevant to consumers
- Sellers assume the risk through the pay-per-click model
- Buyers can easily control their bids and adjust the tradeoff between price and volume
- Campaign attribution is streamlined (due to a limited number of vendors) more easily enabling performance-based pricing models

Ironically, search accounts for only 4% of consumers' total time online ... yet it captures the largest share of ad budgets. As the industry's buying trends change to take advantage of the profound opportunity in RTB-based display, the **other 96% of time online** will likely become more relevant for consumers and more valuable for advertisers and publishers alike.

The Implications for Publishers

Publishers often joke that RTB stands for "Race to the Bottom" based on the assumption that real-time display is simply a more efficient and automated channel for buyers to drive down CPMs. But, as we have illustrated here, real-time bidding encourages buyers to pay a price for each impression that is directly reflective of the true value that it represents. This isn't to say that RTB doesn't create new challenges as well as opportunities for publishers, but an overall decline in CPMs is far from inevitable, and CPA buying via exchanges will help media owners derive the most possible value from their indirectly sold inventory.

In the near future, RTB auctions are expected to heat up, as inventory growth slows and social media use stabilizes. Forrester predicts that the average CPM for RTB impressions bought through ad exchanges will more than double over five years, from $3.17 in 2012 to $6.64 in 2017.[4]

Conclusions: Applying these insights

This shift may sound risky and troublesome. Change is seldom smooth and easy. But the key is not to fear the future, but to understand and embrace it.

RTB presents a huge opportunity for media buyers to "take it to the next level" for their clients and careers. Buyers can evolve from haggling over costs to working collaboratively with media partners to find the strategic value and ROI they are both committed to deliver.

On a team-wide basis, marketers and media-buying organizations can help foster this shift to a more strategic approach to real-time advertising. Here are a few suggested strategies:

1. Consider effective CPA (eCPA) as a fundamental metric when optimizing and measuring the success of campaigns today.

2. Invest in media buying and tracking systems, including ad servers and analytics, to provide more visibility into the chain of events that leads up to a sale and better inform your approach to campaign attribution.

   Most marketers can say which media partner delivered the "last view" or "last click" before a sale—but not all can tell who first brought that prospect to the site, or how influential a given ad was to causing the successful outcome.

3. Transition to a CPA buying model by using existing data to establish realistic CPA goals and attribution models for display targeting partners.

   Setting realistic goals is critically important for CPA buying. Unrealistic eCPA goals for a CPM campaign may rattle your partners, but unrealistic goals for a CPA campaign will hurt your bottom line by causing under-delivery of your expected conversions.

4. Choose targeting partners that have the data, processing power and RTB capabilities to identify and purchase the right impressions at meaningful scale.

To get started, please contact us today:
quantcast.com/contact

Sources

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2. While an RTB bid includes a CPM value, this is done for convenience only. A CPM bid of $10.00 means the advertiser is willing to pay $0.01 for that one impression.
3. "State of the Media: The Social Media Report," Nielsen, 14 September 2011
4. Joanna O'Connell, Niki Scevak, and Anthony Mullen, "Digital Media Buying Forecast, 2012 to 2017," Forrester, 9 October 2012, p4