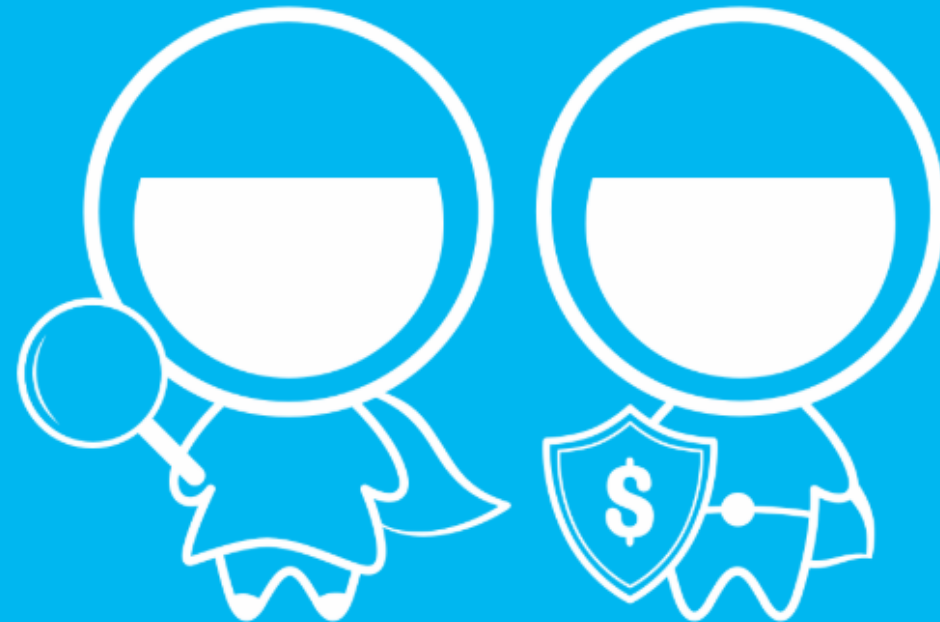


Search Engine Marketing Bidding @ Scale

Ryan Wilber

Director of Performance Marketing @ Tiki





Who Am I?



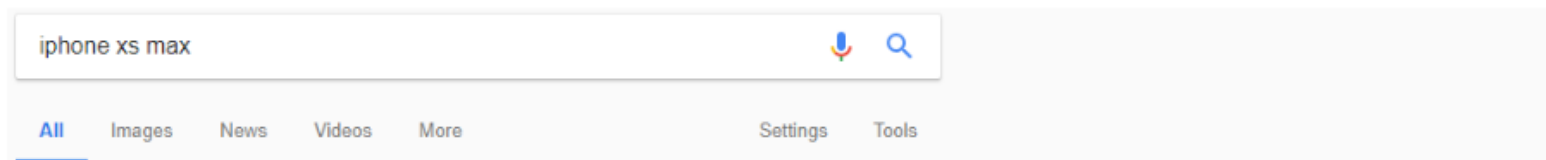
Ryan Wilber

Director of Performance Marketing @ Tiki

[linkedin.com/in/wilb36/](https://www.linkedin.com/in/wilb36/)



- Director of Performance Marketing @
 - Performance Marketing
 - Brand Marketing
 - Marketing Analytics
 - Onsite Merchandising
- Past Experience
 - Director of Marketing Product Management @ **coupan**g
 - Head of SEO and SEM Operations, EMEA @ **GROUPON**
- Designed, built, and operated Marketing Automation technology for ~150M keyword portfolios and +\$100M USD yearly ad spend budgets
- Designed multiple closed loop Search Engine Marketing Automation platforms for multiple search engines (Google, Bing, Naver)



SEM Text Ad
Paid
Advertisement
on a CPC
Basis

Đặt Trước IP XS Max Mới Nhất | Giá Chỉ Từ 18.990.000 | tiki.vn
www.tiki.vn/
 Cam kết chính hãng 100%. Bảo hành 12 tháng. Số lượng có hạn. Nhanh tay đặt ngay. Giao Hàng Toàn Quốc. Cam Kết 100% Chính Hãng. Giao hàng chỉ trong 2h. Giao Hàng Miễn Phí. Đổi Mới 30 Ngày Miễn Phí. Miễn phí giao hàng. Bảo hành chính hãng. Cam kết giá tốt nhất. Cam kết chính hãng. Phụ Kiện JBL Giá Tốt · Phụ Kiện Energizer

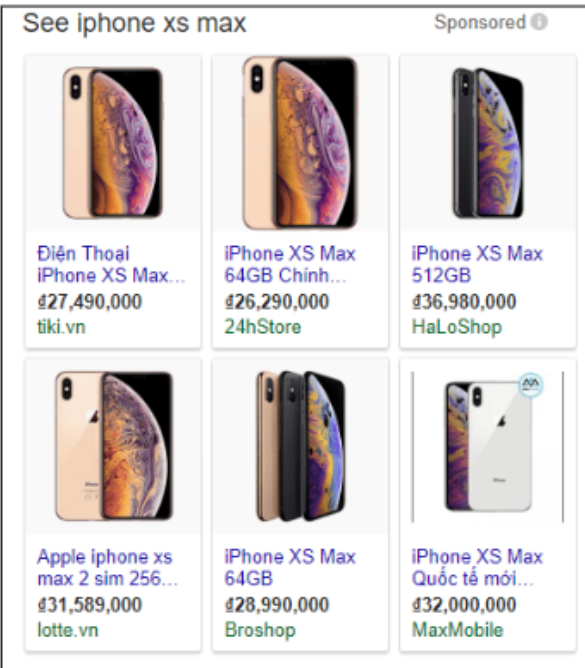
CellphonesS Sẵn Hàng IP XS Max | Giá Chỉ Từ 28 Triệu
www.cellphones.com.vn/iPhone-XS-MAX/64GB-256-512GB
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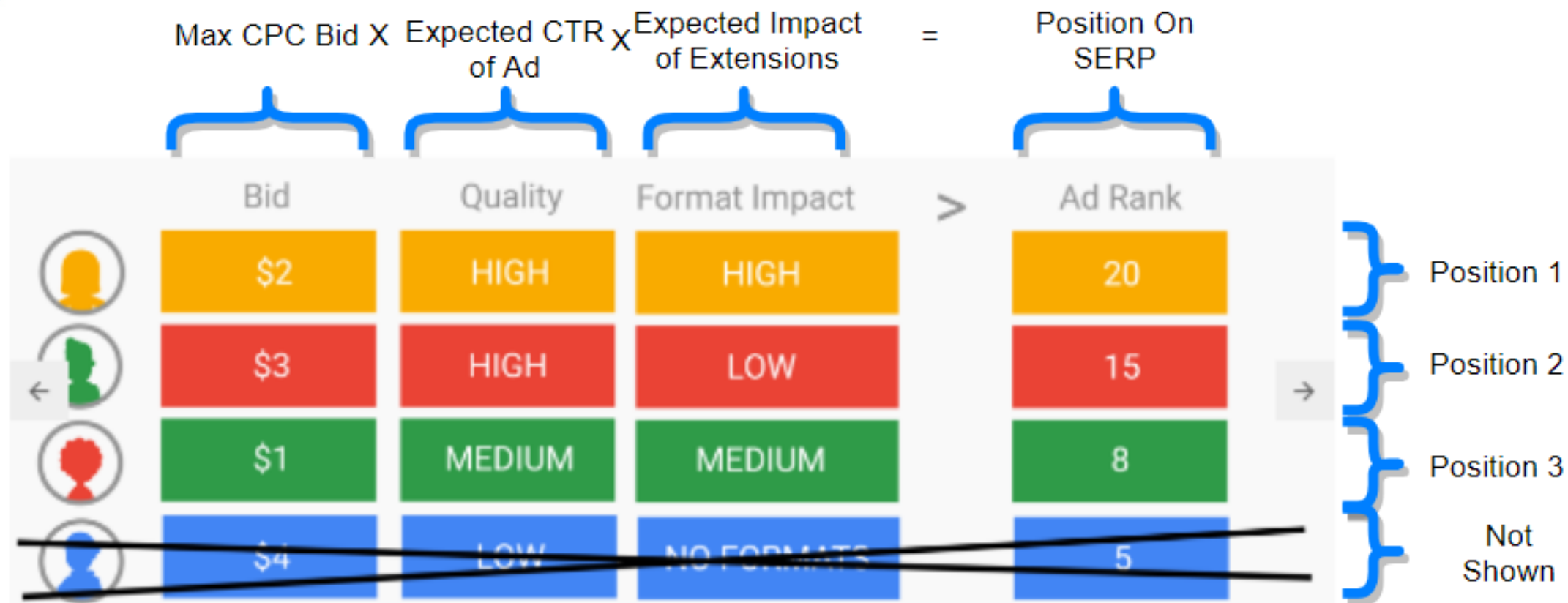
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SEO Listing
Free listing
decided by
Googles
Search
Algorithm



SEM PLA
Paid
Advertisement
on a CPC
Basis



Advertisers set a Maximum CPC they are willing to pay for a click. After the auction, we end up paying only 1 cent more than the next advertisers bid needed to maintain our position. Across a number of clicks, this is known as our avg. CPC

Goal: For every dollar we spend on Ads, we want to make X dollars in revenue



Keywords have a cost per click and generate revenue per click

If we want to make \$10 for every \$1 we spend, our revenue per click for a keyword needs to be 10 times the cost per click we end up paying.

Our bidding algorithm is built to ensure this ratio is hit across a keyword portfolio of any size.

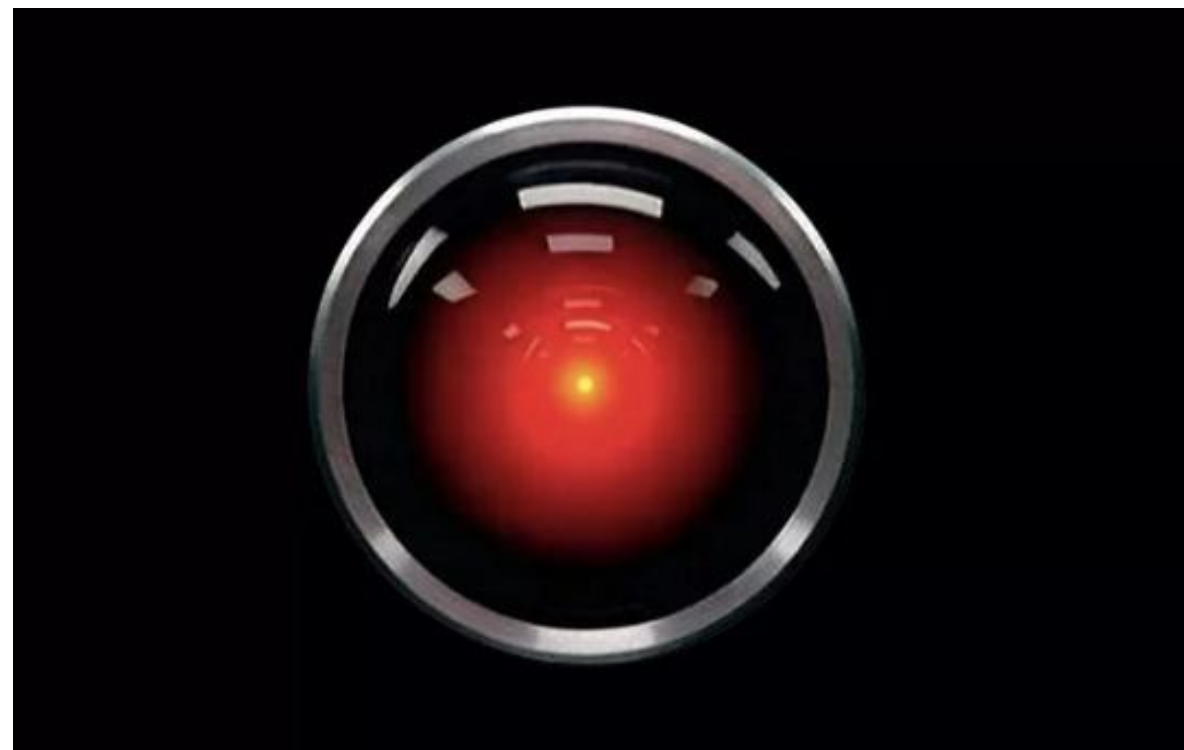
$$\text{Max CPC for a Keyword} = \frac{\text{Revenue}}{\text{Clicks}} \times \text{Efficiency Ratio} \times \text{Max CPC to Avg. CPC Ratio}$$

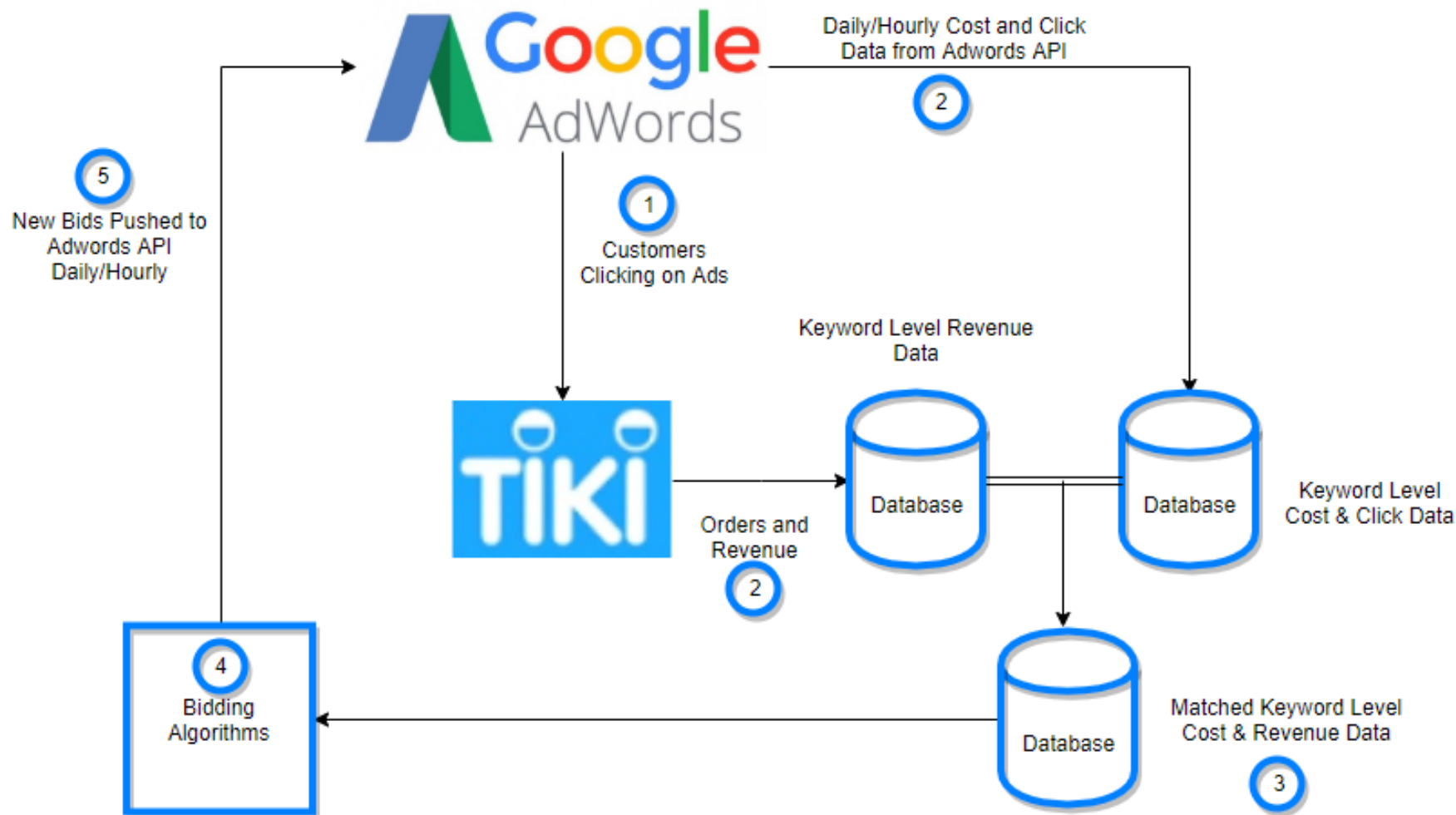
$$\text{Iphone XS Max CPC} = \frac{\$10,000}{1,000} \times 0.1 \times 1.5 = \$1.50 \text{ Max CPC}$$

Additional Considerations

- Individual clicks give you the sample mean for a keywords revenue per click population mean. You need a statistically significant sample of clicks to understand the population mean and set a bid on a keyword.
- The Max CPC to Average CPC ratio is very hard to model and must be done differently for different positions on the SERP
- You must pick a time window over which to aggregate historical data and handle seasonality and fresh/stale data importance

With Machines!





1. Customers click on SEM Text ads
1. Store revenue data and click data at a keyword level in internal Databases
1. Match keyword level click and revenue data at a keyword level in internal Databases
1. Apply bidding algorithms to keyword click and revenue data
1. Push new bids to adwords API Daily/Hourly



Want to learn more? Join Tiki Now :)

- Bidding differently in a data sparse environment versus a data dense environment (Head vs. Tail Bidding)
- Modelling the max cpc to average CPC ratio
- Real time bidding and testing algorithms
- Big data analytics (+B rows of data)
- Bidding to incremental Long Term Customer Value
- Building marketing automation and data analytics technology
- Hiring for
 - a. Marketing Channel Managers
 - b. Data Analysts
 - c. Data Scientists
 - d. Software Engineers
 - e. Product Managers

Thanks!