

Unpacking the Supply Side Challenge

Dr. Boris Musykantskii, CEO & Chief Scientist, IPONWEB

An abstract network diagram in the background, consisting of numerous grey dots (nodes) connected by thin grey lines (edges). The nodes are arranged in a way that suggests a complex, interconnected web, with some clusters and some isolated nodes. The lines vary in length and orientation, creating a sense of dynamic connectivity.

IPONWEB

Unpacking the Supply Side Challenge

Dr. Boris Musykantskii
CEO, IPONWEB

IPONWEB IS A GLOBAL TECHNOLOGY COMPANY

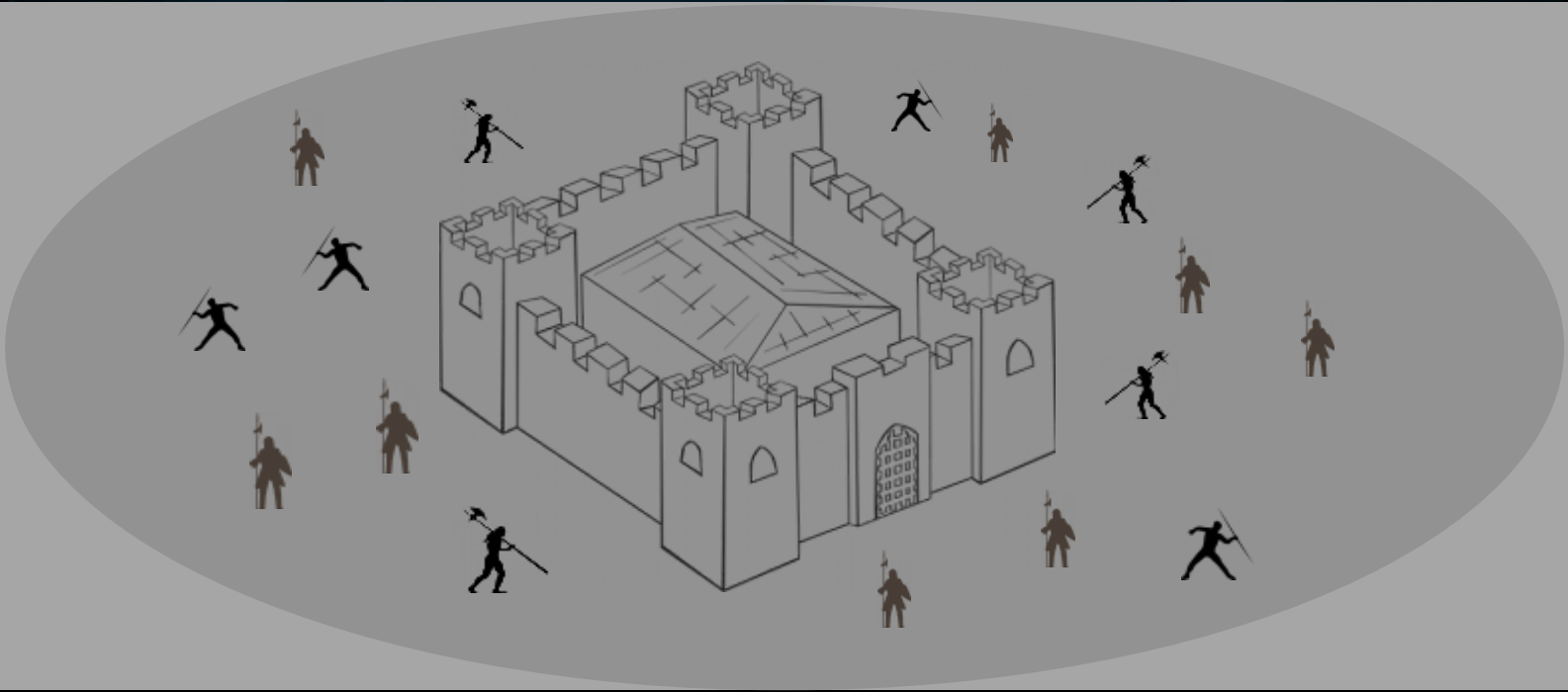
We specialize in solving the complex challenges around building real-time advertising platforms at scale. Over the past 10 years IPONWEB has pioneered custom ad-tech technology for more than 100 companies globally.



U- PLATFORM

**BID
SWITCH**

PUBLISHERS UNDER SIEGE



THREE PILLAGERS OF SUPPLY



Middle Men
Bandits

Property Looters

Heavily Armed Cartels

SUPPLY SIDE CHALLENGES

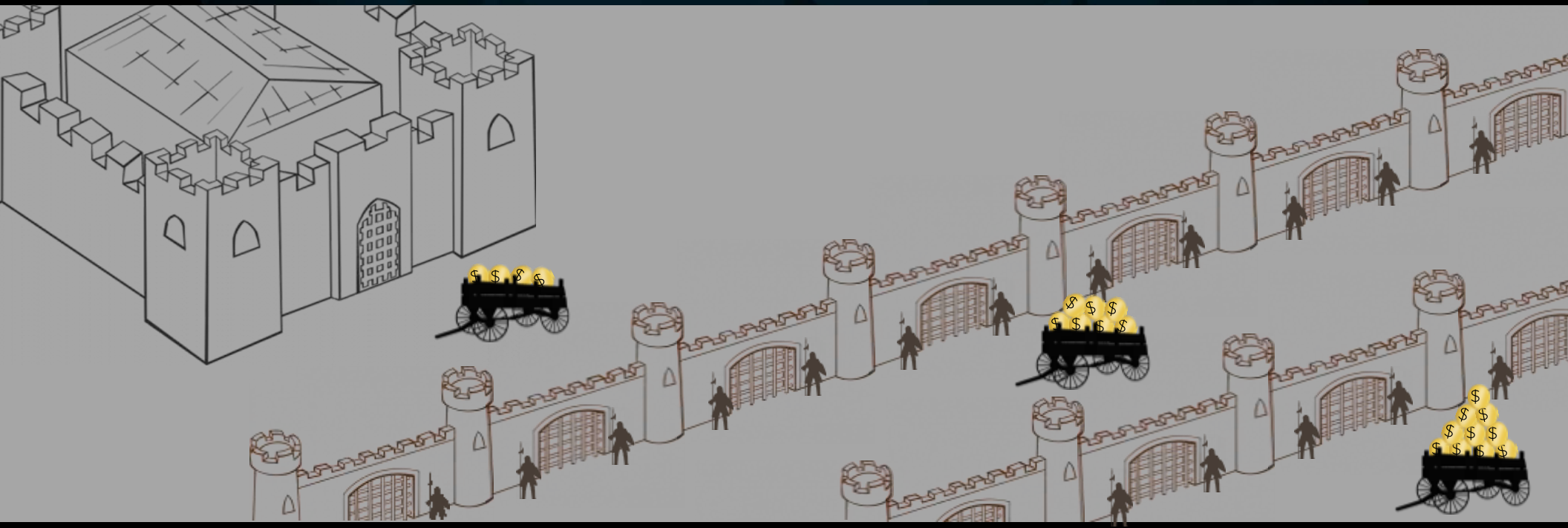


LUMASCAPE

Audience Buying

Buy Side Technology

THREAT: LUMASCAPE



PROGRAMMATIC CAPITAL SHIFT

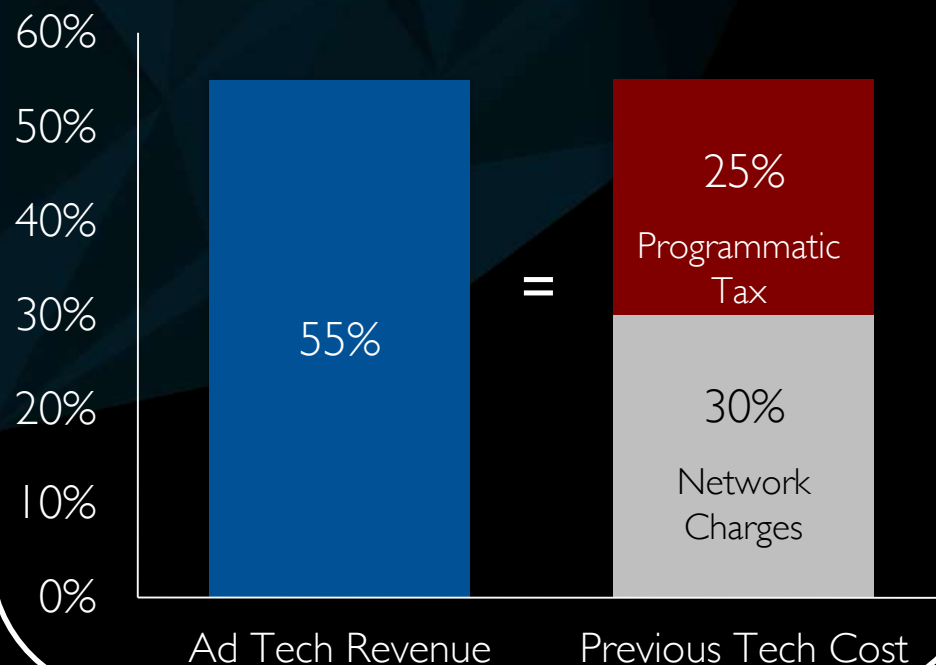
Programmatic has shifted a lot of the money that was on the table from publishers to (ad-tech) intermediaries.

2014 IAB Programmatic Advertising Study

- Ad-tech revenues – 55%
- Publishers – 45%

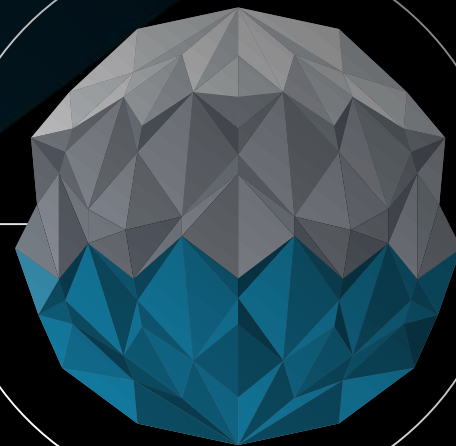
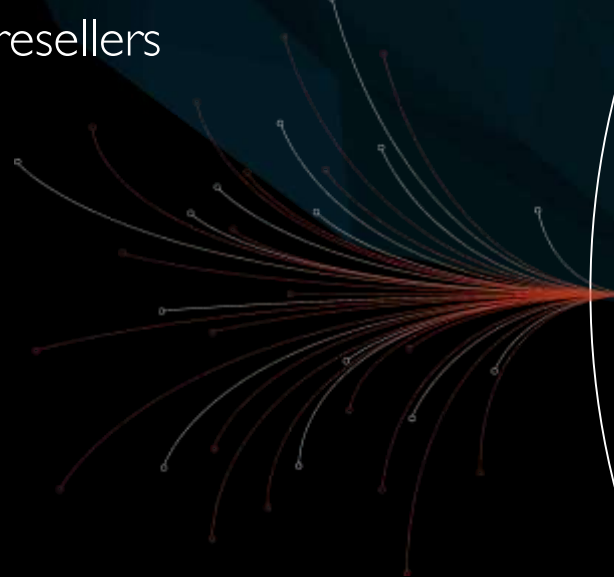
In terms of previous charges...

Ad-Tech Revenue Equivalent

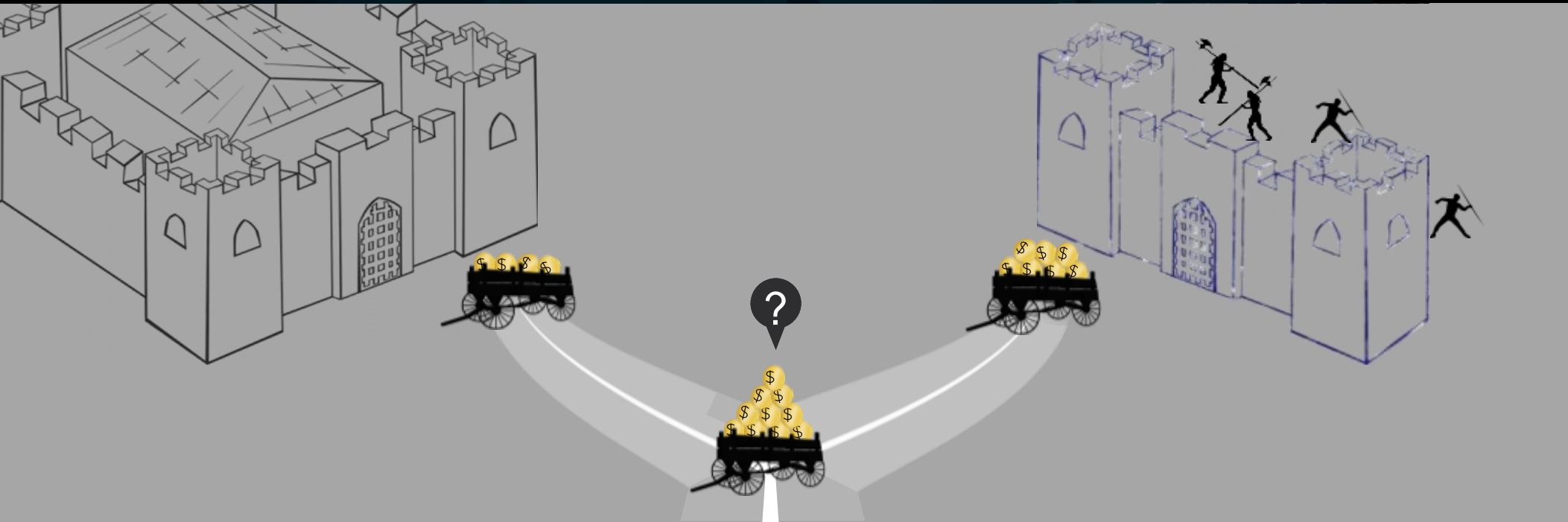


CONTROL RTB INTERFACES

- Control RTB bids and responses same way you treat your premium impressions and direct demand
- Protect & monetize data
- Police resellers

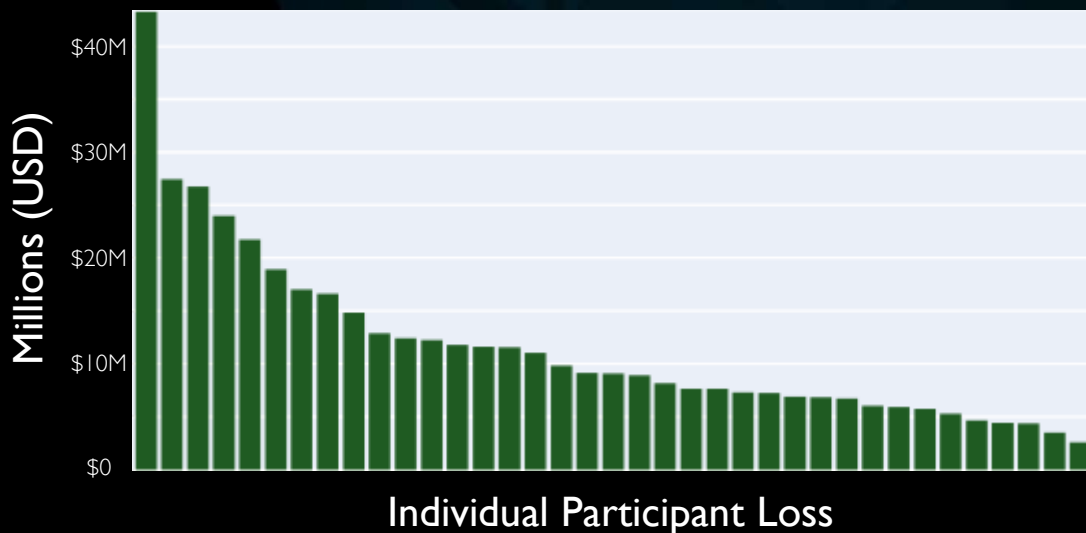


THREAT: FRAUD



FRAUD FINANCIAL IMPACT

Annual Estimated Losses by Participant- 2015



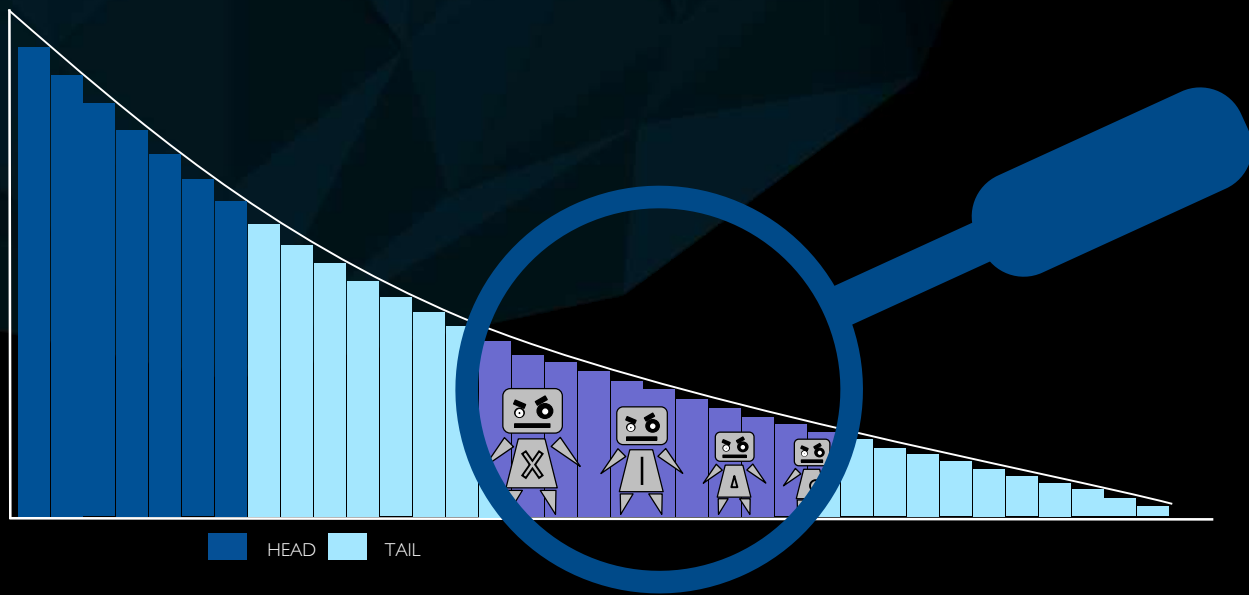
In the latest ANA/White Ops Bot Baseline Report, the financial impact of fraud in digital advertising:

- Averaged \$10 Million per Participant in 2015
- \$7.2 Billion Estimated Global Losses Expected in 2016.

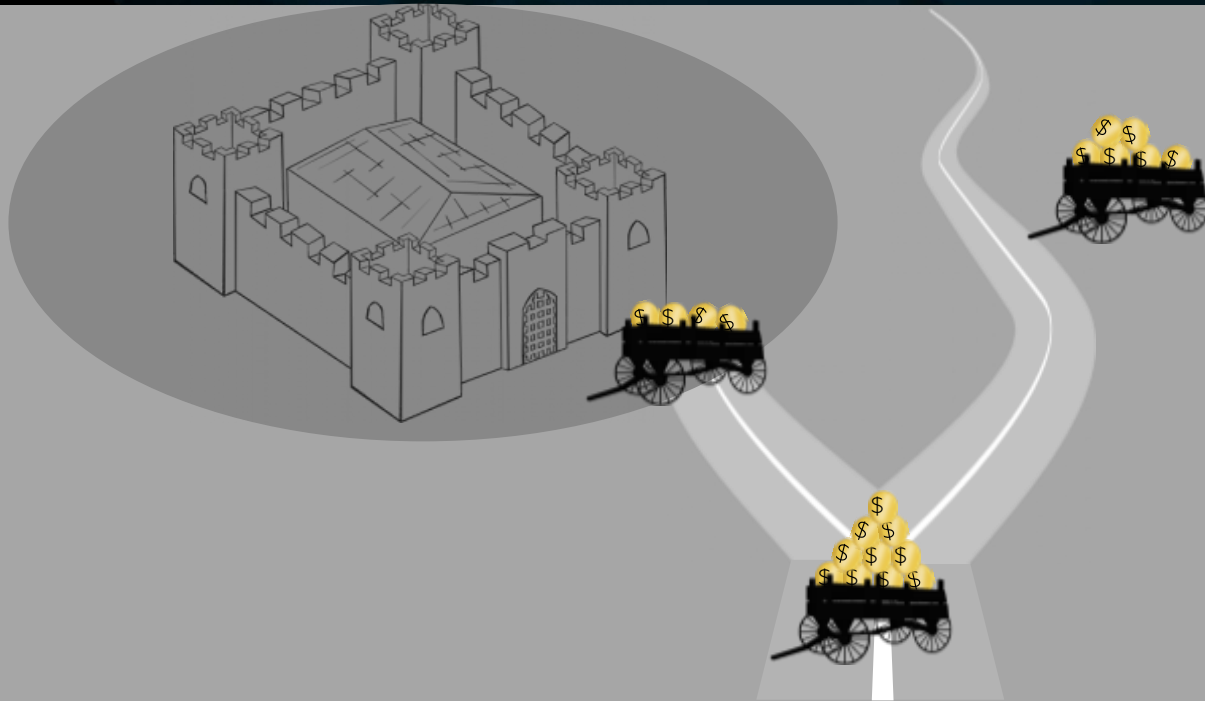
LOW QUALITY TRAFFIC aka...

Advertisers & Agencies are not smart enough to know better

1. Be fraud free and police your “sourced” traffic vigilantly
2. Make sure advertisers know about your fight
3. Only ever engage with fraud free resellers



THREAT: AUDIENCE BUYING



SHIFT TO AUDIENCE BUYING

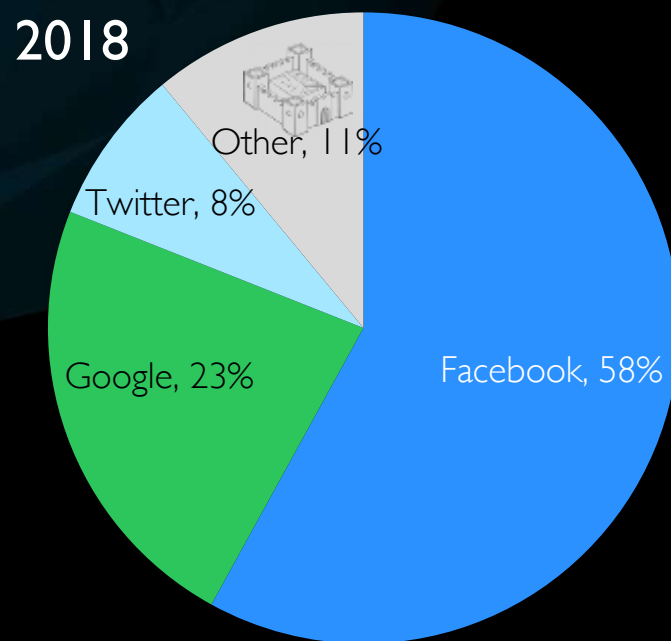
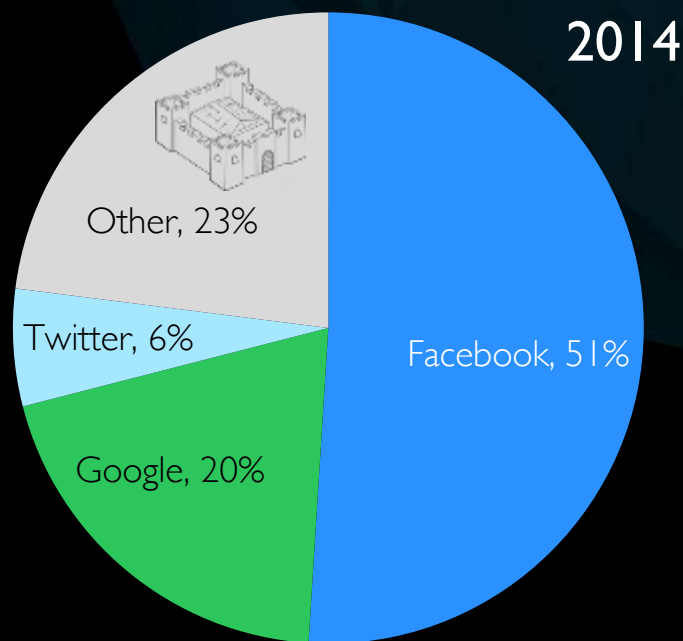
Premium Publishers

Long-Tail Publishers



DATA PACKAGING

Huge Publishers with scale are packing their inventory with data, moving revenues away from publishers without substantial data assets





TO EXACERBATE THE PROBLEM...

THREAT: DATA LEAKAGE



GIVING DATA FOR FREE



New York Times - 18



USA Today - 24



New York Post - 45



The Wall Street Journal - 21



Forbes - 35



The Huffington Post - 60

MULTIPLE SSP WATERFALL

Offering the same impression through multiple SSPs

- Short term increases in yield for premium publishers
- Long term suppression of market CPMs and brand dilution



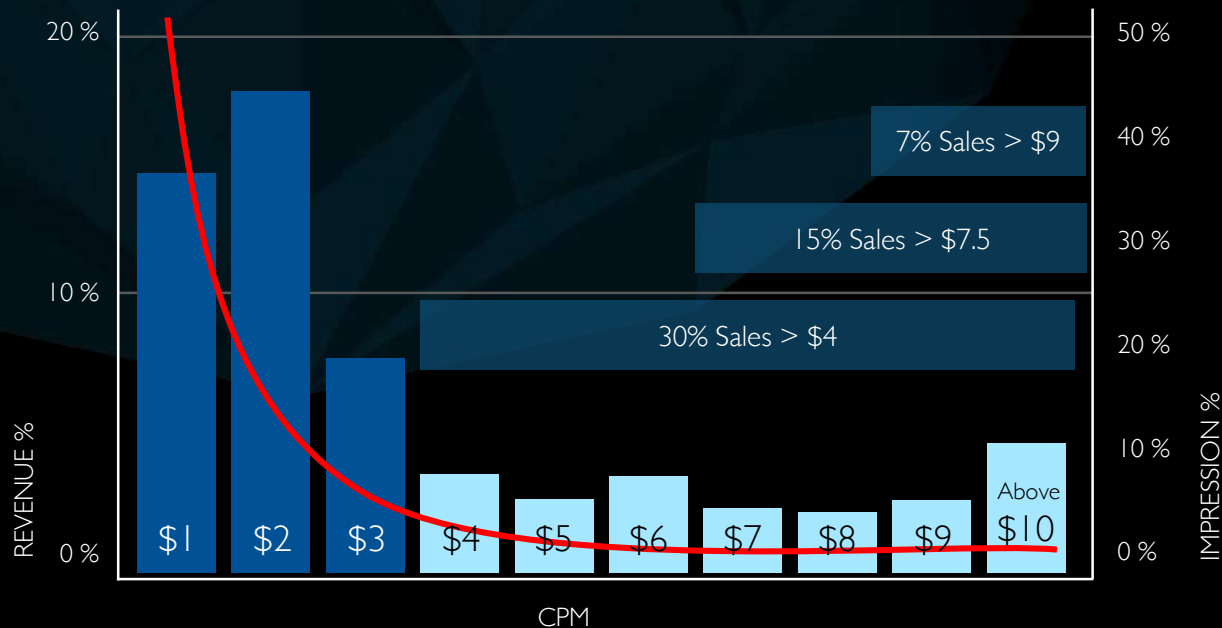
1ST LOOK

“1st Look” and “Programmatic Guaranteed” schemes are often mispriced.

OVERALL CPM PRICING

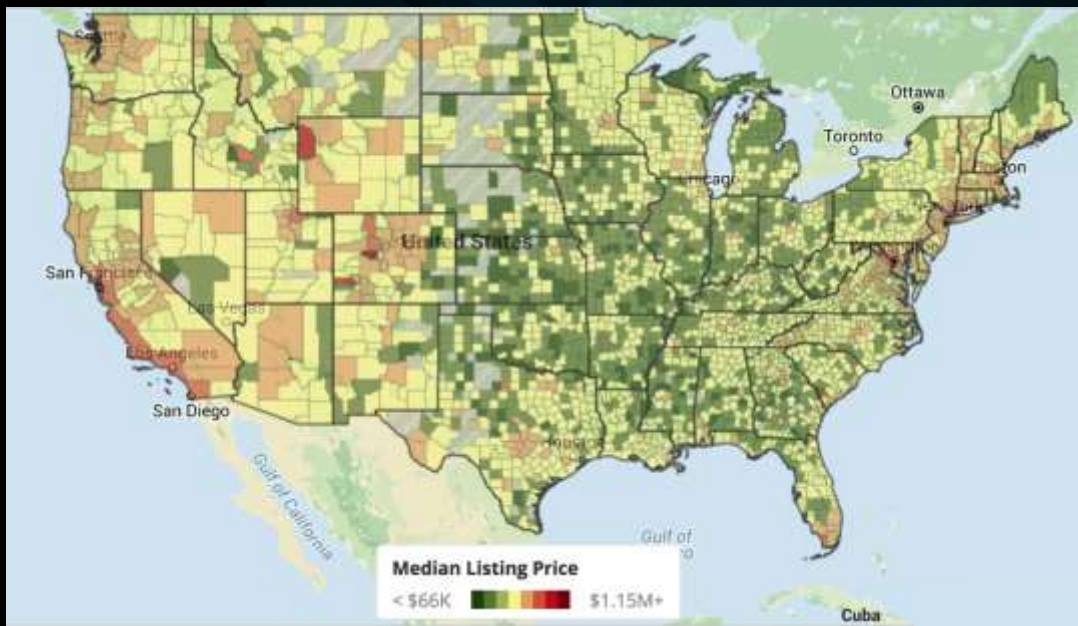


PROGRAMMATIC Pricing Distribution



INVENTORY RE-PRICING

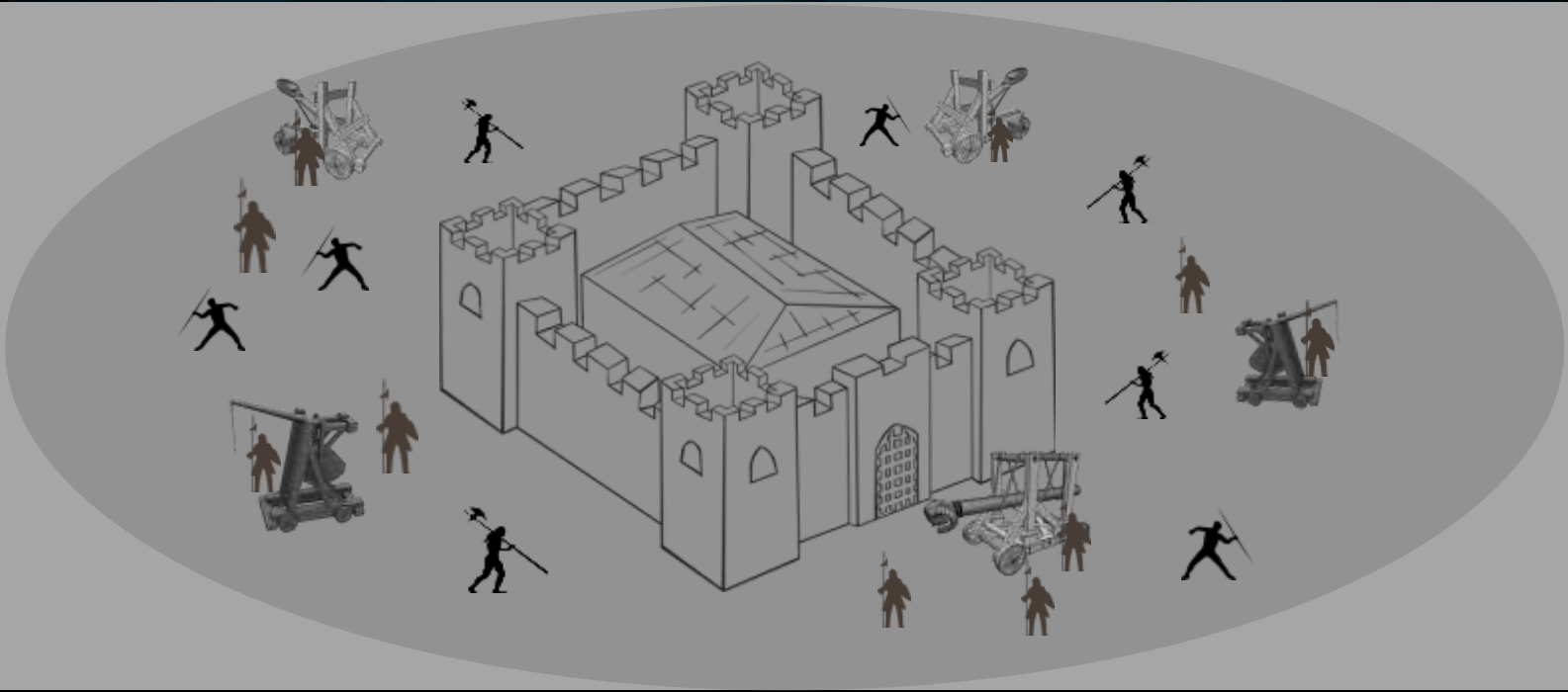
US Property Listing Price by County



Identify “hot spots” that are over-subscribed and raise the price on them without shame.

- Parts of inventory most likely defined by audience
- Most desired by advertisers

THREAT: BUY-SIDE TECHNOLOGY



2ND PRICE AUCTION

Advertisers, agencies and DSPs forced Publishers (and SSPs) to trade on “2nd Price Auctions” while building cartels on the demand side (also known as DSPs) which are suppressing the bids by the advertisers using the same DSP.



BID RIGGING

Winner decided beforehand and bids taken for appearances



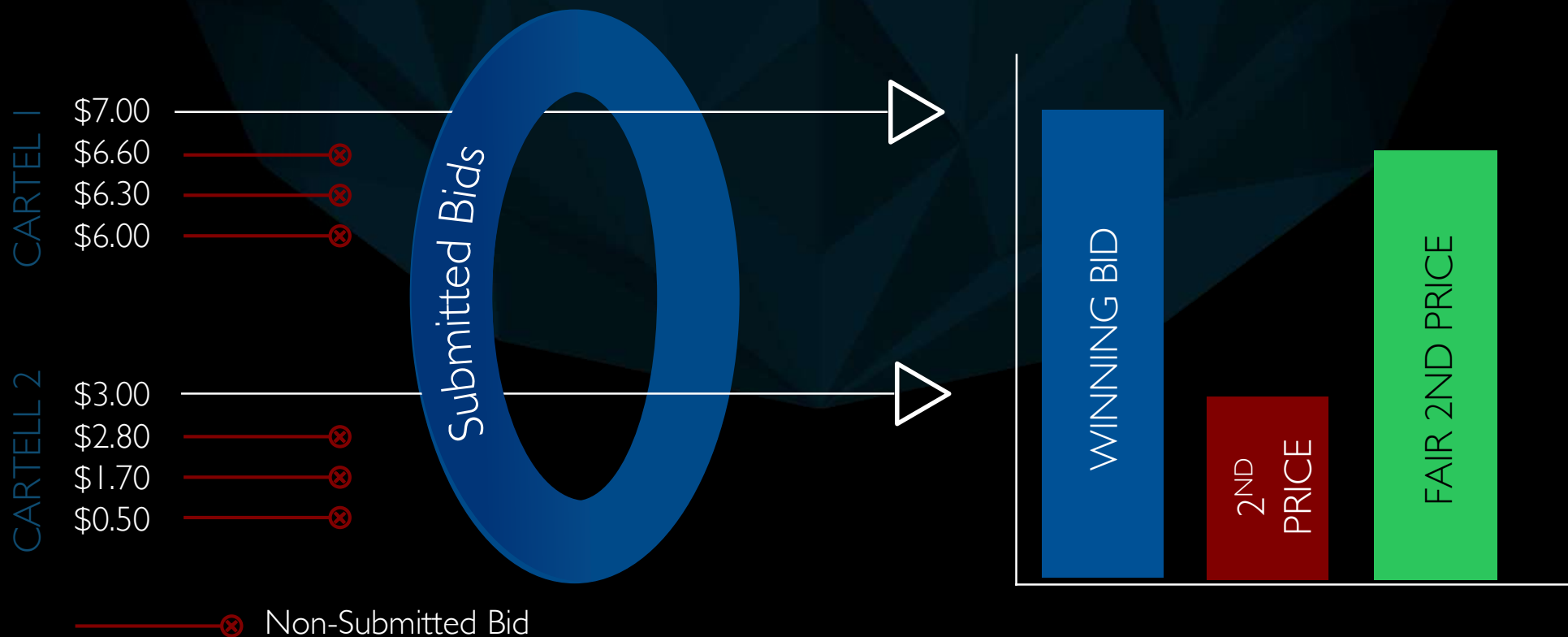
BID SUPPRESSION

Conspirators agree not to submit a bid so that another can win

ILLEGAL PRACTICES

CARTEL PRICING

DSP Internal Auction





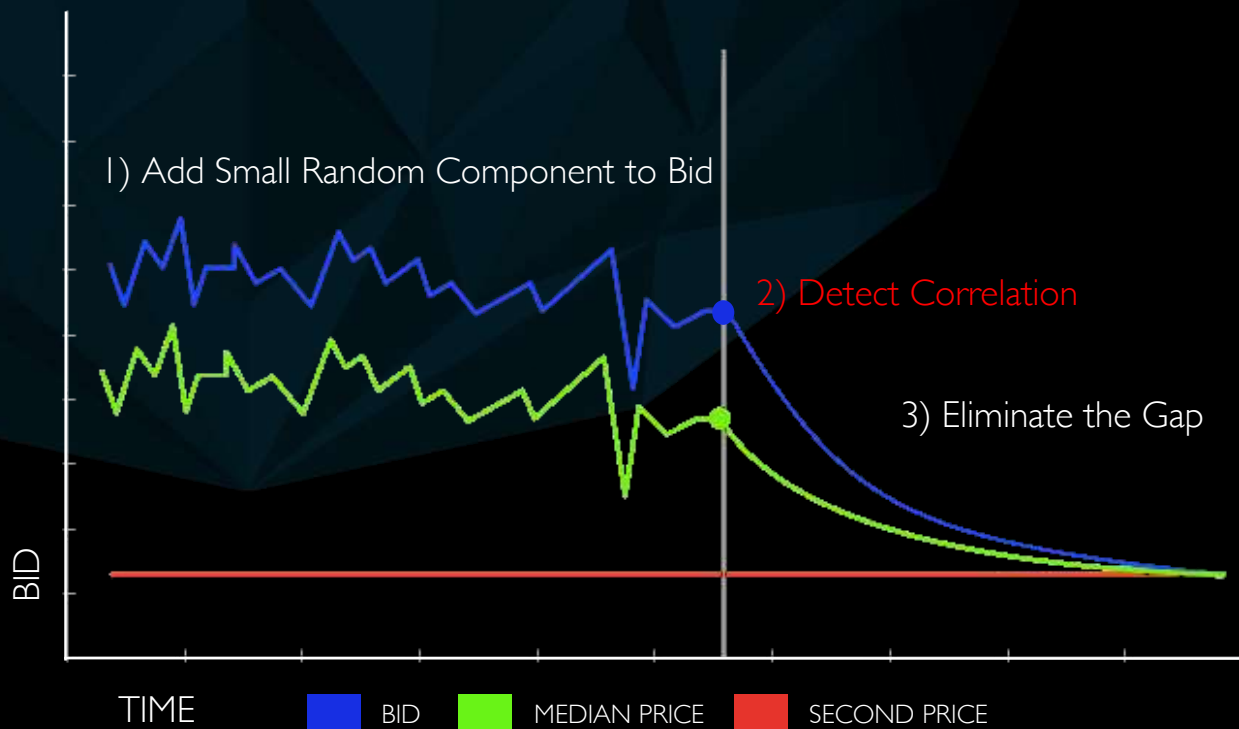
FURTHER EXACERBATING THE
PROBLEM...

GAMING THE AUCTION

Easy to Detect and Avoid



Charging the median between 1st & 2nd Price



INDEPENDENT CLEARING PRICE

Floor should not depend on the bid value.

How to find $\$X$ that is best for publisher?

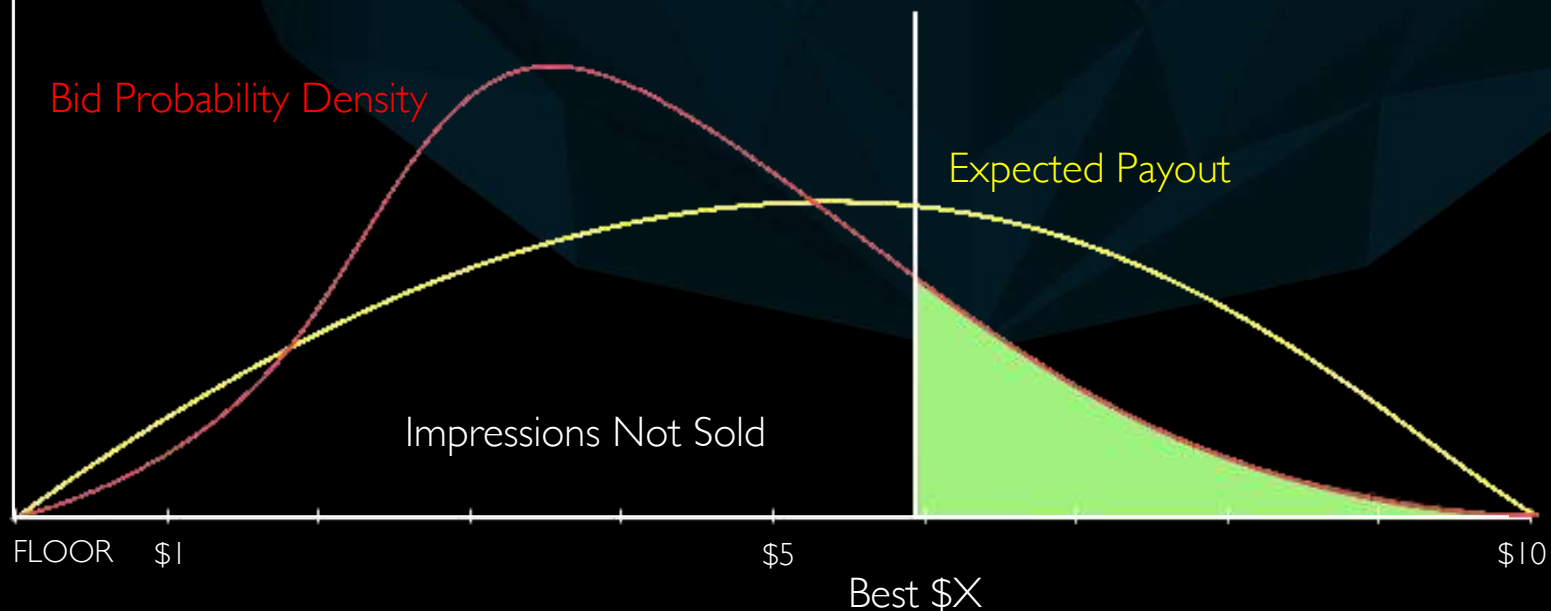


OPTIMAL FLOOR PRICING

Expected Payout (X) = $X P(\text{bid} > X)$

Maximum Payout $\frac{d}{dX} X P(\text{bid} > X) = 0$

Optimal Bid Equation: $P(\text{bid} > X) - X P(\text{bid} = X) = 0$



EXAMPLE: GLOBAL CARTEL

Single Country

- Bid Density $\Gamma(2, \$3.00)$
- Typical Bid \$3.00
- Average Bid \$6.00
- 2nd Price Floor \$0.00
- Optimal Floor \$4.85



AUCTION	CPM
• Traditional 2nd Price	\$0.01
• 50% Cheat	\$3.00 – Until Busted
• Optimal Auction	\$2.53

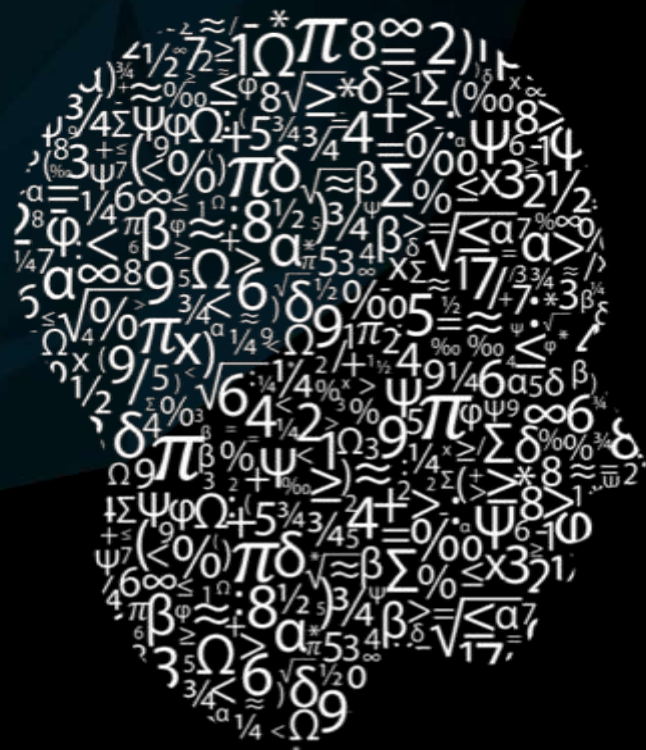
SUPPLY SIDE TACTICS

MACHINE LEARNING:

- Model bid distribution against multiple parameters
 - DSP
 - Publisher
 - Size
 - Etc.
- Set a different optimal floor on each bid
- Set a different optimal floor on each DSP
- **HOLD THE GROUND** – do not sell below the floor

REGULATORY:

- Demand transparency on all the bids
- Reconsider 2nd price deal



SUPPLY-SIDE FORTIFICATION



Data Protection

Optimal Auction

Own Your Territory



IPONWEB

ENGINEERING MEDIA TRADING EVOLUTION

www.iponweb.com