The Attention Advantage
Using deep learning to boost ad performance
It’s common sense: Advertisers should be optimizing toward attention!
We conducted research to find out exactly what happens when brands optimize pre-bid
Our questions

What benefits, if any, do advertisers get by optimizing pre-bid toward attention?

What optimization approaches work hardest to drive performance for each ad type (e.g., display and video)?

What other pre-bid measures can be leveraged to minimize the carbon footprint of campaigns?
What we did

We combined two technologies that work hand-in-hand to optimize media delivery towards attention.

Adlook’s Deep Learning Technology

Leverages deep learning technology, and is utilized end-to-end throughout every ad campaign (e.g., bidding, audiences, SPO, emissions, frequency capping, etc.)

Adelaide

Adelaide’s Attention Unit (AU) Metric

A single omnichannel metric:

Combines session-level data with machine learning and eye-tracking research to score media with an algorithm tuned to predict outcomes (e.g., attitudes, behaviors, conversions, incrementality)

Scores can range from 1-100AUs

SCOPE3

Carbon Emissions Data

Comprehensive dataset measuring carbon dioxide released from digital impression delivery
## Our scope

<table>
<thead>
<tr>
<th>The Scope</th>
<th>Metrics Tested</th>
<th>The Brands</th>
</tr>
</thead>
<tbody>
<tr>
<td># Impressions Measured:</td>
<td><strong>24,185,829</strong></td>
<td><strong>CVS Health</strong></td>
</tr>
<tr>
<td># Survey Responses:</td>
<td><strong>2,590</strong></td>
<td><strong>OUTBACK STEAKHOUSE</strong></td>
</tr>
</tbody>
</table>

**The Scope Metrics Tested:**
- Attention Units (AUs)
- Carbon emissions
- Engagement
- Media KPIs
- Aided Ad Recall

1. hover, click rate
2. CPVC, vCPM, CTR, VCR
Pre-bid optimization vs. No optimization
## Optimization approaches

<table>
<thead>
<tr>
<th>Pre-bid</th>
<th>Post-bid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enables advertisers to proactively optimize ad placements before they are served, maximizing customization and granularity of media dynamics</td>
<td>Happens after ad placements have been served, ultimately limiting the ability to fine-tune and optimize in real-time, but providing scaled solutions</td>
</tr>
</tbody>
</table>
Pre-bid campaign optimization increases the opportunity for attention.

Average AUs for campaigns: Pre-bid vs. no pre-bid optimization

Video ads

AU Not Optimized Pre-bid: 24.8
AU Optimized Pre-bid: 40.8

+65% LIFT IN AUs FOR PRE-BID VS. NO PRE-BID

# of Impressions:
Video, AU Prebid: 1,558,565
Video, No AU Prebid: 1,356,605
AU: Attention Unit
Video ads drive more efficient impact than display

Compared to display, less video AUs are needed to drive meaningful impact.

Breakthrough Insight #2

Video ads drive more efficient impact than display

Efficiency of display vs. video ads, pre-bid optimized

Display

CPM/Avg. AU: $0.18

18.3 Avg. AUs

Video

CPM/Avg. AU: $0.17

42.6 Avg. AUs

+133% LIFT COMPARED TO DISPLAY

# of Impressions:
Display, AU Prebid: 3,875,587
Video, AU Prebid: 1,841,824
Attention optimization drives media KPI performance

Display ads that are optimized to AUs pre-bid are more effective and efficient at achieving standard media KPIs.

Impact on media KPIs: Pre-bid optimization vs. no pre-bid optimization

- Display ads

<table>
<thead>
<tr>
<th></th>
<th>No AU pre-bid</th>
<th>AU pre-bid</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2.81</td>
<td>$3.41</td>
<td></td>
</tr>
</tbody>
</table>

+18% SAVINGS IN CPM

11% LIFT In CTR
From AU pre-bid compared to No AU pre-bid
Impact on media KPIs: Pre-bid optimization vs. no pre-bid optimization - Video ads

- **Video Completion Rate**
  - No AU pre-bid: 53.3%
  - AU pre-bid: 78.8%
  +48% INCREASE IN VCR

- **Cost per Complete Video ($)**
  - No AU pre-bid: $0.0102
  - AU pre-bid: $0.0175
  -42% DECREASE IN CPCV

The same AU pre-bid optimization approach for display works for video as well.
Impact on aided ad awareness: Average context (AU) vs. average no context (no AU) - Display ads

Delta (Exposed – Control)

Contextual relevance is a multiplier to attention

Complementing AUs with contextual relevance delivers stronger ad recall

With context: +7.9%

No context: +3.4%

+131% DELTA LIFT
In awareness for ads delivered in context

Breakthrough Insight #5

The Best Houseplants For Your Health

Total N = 2,590
Q: Do you recall seeing a [brand] ad recently?
Utilizing pre-bid optimization not only makes your media work harder, but also serves a greater purpose.

When optimizing to attention pre-bid, you can beat your KPIs while emitting less carbon per KPI.

### Emissions: Pre-bid optimization vs. no pre-bid optimization

<table>
<thead>
<tr>
<th></th>
<th>AU Prebid</th>
<th>No AU Prebid</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Impressions</td>
<td>3,400,389</td>
<td>1,356,605</td>
</tr>
<tr>
<td>Emission per impression per average AU</td>
<td>116</td>
<td>84</td>
</tr>
<tr>
<td>Emission per delta per average AU</td>
<td>116</td>
<td>84</td>
</tr>
<tr>
<td>CPM ($)</td>
<td>$6.37</td>
<td>$5.16</td>
</tr>
</tbody>
</table>

- **19% Savings in CPM**
- **28% Decrease in Emissions**
- **28% Decrease in Emissions per Delta**
To ensure media responsibility, sustainability needs to be proactively actioned off in combination with attention. Integrating emissions data with attention data pre-bid results in brand growth, and is also more sustainable.

### Total emissions when using GreenPath*: Pre-bid optimization vs. no pre-bid optimization

- No AU pre-bid
- AU pre-bid with Adlook GreenPath

#### Total emissions per impression – Display

<table>
<thead>
<tr>
<th>Emissions (kg CO2e)</th>
<th>No AU pre-bid</th>
<th>AU pre-bid with Adlook GreenPath</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.4500</td>
<td></td>
<td><strong>0.4147</strong></td>
</tr>
<tr>
<td>0.4000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.3500</td>
<td></td>
<td>0.3265</td>
</tr>
<tr>
<td>0.3000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.2500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.2000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Total emissions per impression – Video

<table>
<thead>
<tr>
<th>Emissions (kg CO2e)</th>
<th>No AU pre-bid</th>
<th>AU pre-bid with Adlook GreenPath</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.4500</td>
<td></td>
<td><strong>0.4288</strong></td>
</tr>
<tr>
<td>0.4000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.3500</td>
<td></td>
<td>0.3837</td>
</tr>
<tr>
<td>0.3000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.2500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.2000</td>
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**Breakthrough Insight #7**

- **21% DECREASE IN EMISSIONS PER IMP USING ADLOOK GREENPATH**
- **11% DECREASE IN EMISSIONS PER IMP USING ADLOOK GREENPATH**

Adlook simulated data

*GreenPath integrates Scope3 emission data pre-bid, in real time for every impression served.
Pre-bid optimization wins when it comes to the bottom line

When you integrate attention inputs pre-bid, you pay less

**Average cost per CPM for campaigns with pre-bid optimization vs. no pre-bid optimization**

<table>
<thead>
<tr>
<th></th>
<th>No AU Pre-bid</th>
<th>AU Pre-bid</th>
<th>SAVINGS:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Display</strong></td>
<td>$3.44</td>
<td>$2.99</td>
<td>13%</td>
</tr>
<tr>
<td><strong>Video</strong></td>
<td>$9.31</td>
<td>$8.00</td>
<td>14%</td>
</tr>
</tbody>
</table>

# of Impressions:
- Display, AU Prebid: 8,152,942
- Display, No AU Prebid: 7,400,306
- Video, AU Prebid: 1,558,565
- Video, No AU Prebid: 1,356,605
Drive performance efficiently

Brand performance excels when optimizing AUs pre-bid, and does so at an efficient rate.

Leveraging pre-bid optimization works as a multiplier for obtaining effective, sustainable performance.

Enable better-performing media with pre-bid optimization.
SUSTAINABLE BRAND GROWTH = (Attention x Emission)
How to act

The right tech + the right metrics = responsible, sustainable brand growth

Go Deep: Find out how Adlook deep learning coupled with meaningful metrics drives consistent, responsible and sustainable brand growth
Thank you