How The AppNexus Programmable Platform Supercharged Greenhouse Group's Performance for American Express

THE CHALLENGE

Greenhouse Group Wanted To Increase ROI While Decreasing Trading Time

Greenhouse Group is the umbrella organization for five innovative, trend-setting digital marketing companies: Blue Mango Interactive, Blossom, Fresh Fruit Digital, LemonPI and Pubnxt. Together, these agencies employ more than 325 dedicated experts, who work tirelessly to deliver successful campaigns through a blend of creativity, technology and data science.

Above all else, Greenhouse Group is committed to doing everything in its power to maximize results for its clients. While the organization's campaign managers were already generating strong programmatic performance on behalf of American Express, the firm wondered whether it might be able to create additional ROI through the use of automated, machine-learning algorithms. With the right programmatic buying software, they believed that it could lower American Express' CPCs and limit the amount of time its traders spent manually adjusting their line items.

Ultimately, Greenhouse Group needed a technology solution that was both highly intelligent and highly customizable. If the automated platform performed well enough, their traders and data scientists could spend less time trading and more time on high-level strategic planning. However, a purely plug-and-play solution would be a waste of the firm's considerable data science expertise. Instead, Greenhouse Group needed a flexible solution that would allow the organization to layer on its granular data insights and proprietary buying strategies.

THE SOLUTION

Greenhouse Group Puts One Of Its Top Traders To the Test Against The AppNexus Programmable Platform

Greenhouse Group chose to run a test for American Express using two AppNexus products: Augmented Line Item (ALI) and AppNexus Programmable Bidder (APB).

ALI is AppNexus' powerful UI that streamlines campaign set-up and delivery. Through an intuitive, streamlined workflow, media buyers can set their targeting parameters and advertiser goals without the hassle of building multiple line items and campaign objects. Once that's done, the ALI purchases the optimal inventory based on a variety of complex factors, using machine learning to improve its real-time decision-making throughout the campaign.

*"**APP is the way forward** and Greenhouse Group's expertise in using AppNexus is generating a higher return on ad spend than we can achieve with other partners"*

Marc Bergers
Marketing Executive Online Acquisition at American Express The Netherlands

Meanwhile, APB gives more sophisticated buyers the tools they need to bring their own secret sauce to the AppNexus platform. Greenhouse Group used APB to run a line item built by its proprietary BidWiser technology, a tool that automatically creates self-learning algorithms that process tens of variables alongside the client's unique historical data. Through a single piece of code pushed to the AppNexus platform, Greenhouse Group was able to execute hundreds of bidding strategies created specifically for American Express, based on factors like seasonality, data segment, bid density and viewability.

In order to create a level playing field, Greenhouse Group decided to run a month-long pure A/B test with three line items: one ALI line item, one APB line item and one legacy line item controlled manually by one of the firm's most capable traders. Though the trader was incentivized to outperform the automated programs, the end results would ultimately prove the power of the AppNexus platform and the machine learning algorithms.

RESULTS

ALI Lowers CPCs By 13% And Decreases Operation Time By 73%

The ALI and BidWiser (APB) line items significantly outperformed the manually operated campaign, both in terms of CPC and operational efficiency.

The ALI line item generated a CPC that was 13% lower than the manual line item, and the campaign took less time than the human trader - a total reduction in operation time of 73%. The BidWiser line item performed even better. It delivered a CPC that was 16% lower than the manual line item. As a result, this line item delivered higher ROI while giving Greenhouse Group's human trader more time to focus on strategic work, with a reduction in operation time of 81%.

| CPC | Operation Time | Manual Trader |

ALI **-13%** **-73%**

BidWiser (APB) **-16%** **-81%**
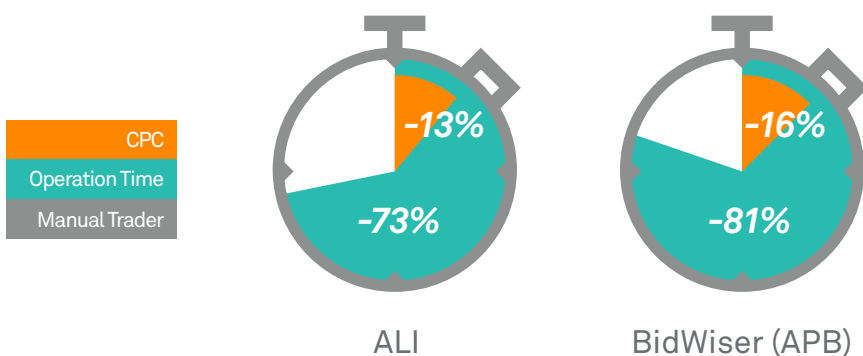
Though consistent manual changes were made to all three line items, the manually traded campaign required 2.6 times as many human adjustments as the machine learning algorithms. Rather than making many laborious manual changes, the ALI algorithm was updating with every impression delivered.

Finally, the manual line item was hampered by an unfortunate, if predictable, hiccup: human error. At one point during the campaign, the trader made a mistake that led to a day's worth of poor delivery. By contrast, the machine learning algorithms performed more consistently and made fewer errors.

*"In our head-to-head pilot, **the AppNexus Programmable Platform** came out on top against one of our best human traders. When you add these results to the amount of time BidWiser and ALI saved our traders, it's safe to say we'll be using this combination again very soon."*

Pim van Boekhold
Head of Programmatic Buying at Greenhouse Group

ALI & BidWiser (APB) Resulted in **Lower CPCs** Compared to Manual Trader

Manual Trader | ALI | BidWiser (APB)

13% **16%**

Reduction
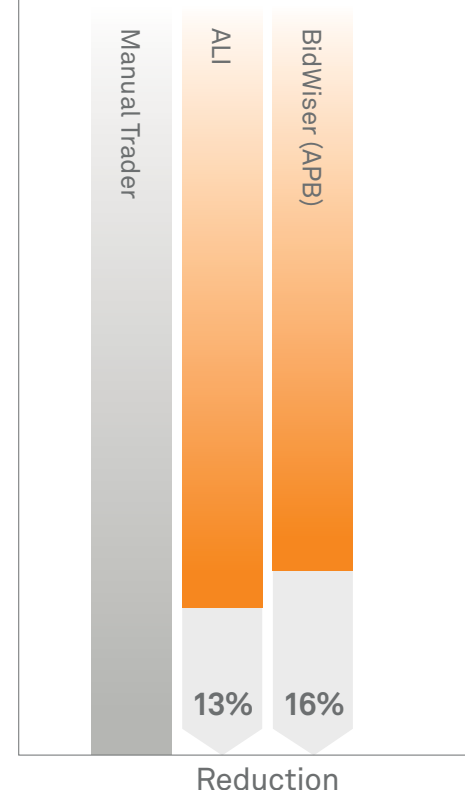
"We are proud of the work we've done with Greenhouse Group to drive higher value for American Express on our programmable platform," said Mike Campbell, Account Director, AppNexus, "Greenhouse Group is continuously pushing the boundaries with our machine learning capabilities, and is already testing new functionailities to drive further results for their client. We're excited to see what they have in store next."

AppNexus

About AppNexus

AppNexus is an internet technology company that enables and optimizes the real-time sale and purchase of digital advertising. Our powerful, real-time decisioning platform supports core products that enable publishers to maximize yield; and marketers and agencies to harness data and machine learning to deliver intelligent and customized campaigns.

For more information, follow us at **@appnexus**
or visit our website at **www.appnexus.com**

Greenhouse Group

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For more information, see **www.greenhousegroup.com**

AMERICAN EXPRESS

About American Express

American Express Company, together with its consolidated subsidiaries, is a global services company that provides customers with access to products, insights and experiences that enrich lives and build business success. Our principal products and services are charge and credit card products and travel-related services offered to consumers and businesses around the world.