

Programmatic Buying vs. Traditional Paid Marketing approaches

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Abstract— The Programmatic Buying process refers to the technology based automatic bartering of advertising media. It engrosses automating the trigger and displaying the creative ads according to user's interest and the search query. The Programmatic Buying can be used for various purposes such as Branding, Retargeting, Lead generation and Customer-specific campaigns. The Programmatic Buying can be customized according to the needs as it can facilitate advanced targeting and real-time advertising. First, we need to identify channels and devices where Programmatic Buying can be used. The Programmatic helps to interact with customers and to display the right ad in front of the right user at the right time. Programmatic take in a variety of media such as display ads and rich media. Ads can be automated to be shown on specific devices such as mobile, desktop, or laptop. The Programmatic also explains the method of tracking user behavior in an online environment as well as defines data management platform. The programmatic is a step ahead from traditional paid marketing approaches. Real-time bidding and Customer relationship management are the two important aspects in the programmatic marketplace.

Key words: Programmatic Buying, Traditional Ad Buying Approach, Data Management Platform, Programmatic Media, Behavioral Targeting, Real-Time Bidding, Targeting Strategies, Programmatic Workflow, Digital Advertising Frauds

I. INTRODUCTION

Programmatic Buying refers to the automated buying and selling of advertising media using technology. It involves automating the trigger and displaying the creative ad according to the user's relevance and the search query. Programmatic can be used in Branding, Increasing reach and Customer awareness using a specific campaign, Retargeting, and Lead generation. If Google Ad Words is used to display ads for specific search phrases, then it is a Programmatic Ad.

Choose social channels to display ads in a user's social feed and target specific people based on their characteristics. Develop videos and bid on them being shown to specific users. It is better to display a video rather than a static ad to enthrall the customers. The video content can be created in an interesting way so that the user can relate to that. Ads can be automated to be shown on specific devices such as mobile, desktop, or laptop. On an average, mobile video ads have an 18% Click-through rate (CTR), which is higher than laptops and desktops. Mobile video ads are high revenue generators as consumers watch most of the video content on their mobile devices. Its revenue is estimated to grow three times faster than the desktop. However, this channel costs more to bid due to the higher competition. The ad space on mobile apps can also be utilized to generate more revenue. Real-time advertising can be used by advertisers to place the ads in front of right users at the right time.

Pay per click offers umpteen benefits but it is also criticized for the scam and other issues associated with its use [2].

A conceptual framework for positioning customer relationship management (CRM) at the strategic level is needed that can help in enhancing customer. The five key cross-functional CRM processes include Strategy development, Value creation, Multichannel integration, Information management, and Performance assessment [5].

II. TRADITIONAL VS. PROGRAMMATIC AD BUYING APPROACH

Programmatic Ad Buying is an automated process that replaced the traditional method of buying ads to a great extent. Traditional ad buying approach was human-driven, which included Meetings, Agreements, and Contracts. Programmatic Ad Buying approach uses automated systems. It includes the players such as Publishers and advertisers.

According to a study on advertisers by Market Sherpa, Advertisers, who followed the Programmatic Ad targeting techniques, saw an average improvement of 32% in Cost per Acquisition returns. Programmatic enables advanced targeting to target users based on behavior, demographics, and purchase history. Advanced targeting techniques help to improve the campaigns to reach people in real-time. Advertisers' average conversion rates were between 1.5 to 4% based on the channels where they received the lead.

Publishers have an audience, who visit their website. They also have content, due to which people visit their website constantly. Moreover, they have inventory, which are the ad spaces to place ads on their website. Publishers need to monetize by having people pay for the content. By having ad revenue model that provides the monetization, publishers can receive maximum money from every ad. On the other hand, Advertisers have budgets. They need to get their products in front of the audience. Advertisers need to attract customers through online advertising. Advertisers pay the least for the maximum response.

A. Traditional Ad Marketplace

Traditionally, advertisers competed to place their ads on the premium sites rather than lesser known sites. Premium sites guaranteed an audience as they are well-known and popular sites. A large number of people visited these sites for the content. The advertisers who could not get their ads on the premium sites had to compete to get exposure on other lesser known sites which could attract a specific audience.

The customer spends a large amount of money on different brands. They can easily differentiate brands on the basis of pricing and quality [4].

Most advertisers competing to be on premium sites collaborate with agencies to negotiate a sale, Create insertion orders, Track advertisements manually, Track waiting

periods, Limited tracking and measurement available to everyone within the process, Lack of transparency.

B. Ad Server: Tracking users

Tracking users' behavior initiated the third party tracking, in which an ad server checks user's browser, Serves ads based on the browser history, Checks the consistency and shares information across platforms. Advertisers were able to reach a specific group of users based on their behavioral factors.

III. DATA MANAGEMENT PLATFORM

Data Management Platform is a third-party tracking program to track the users' behavior and their demographic data and segment them accordingly. The relevant information about the user can be collected from the sites visited by the user the most and type of content interests the user.

IV. PROGRAMMATIC AD BUYING APPROACH

Unlike the traditional approach, Programmatic Ad Buying approach allows advertisers to buy user data points based on the impressions. A primary tracking and accountability system is used. It provides Data transparency for the publishers as well as the advertisers. The advertisers can target users on a specific data point. The appropriate ads can be created that can automatically are shown on currently viewed websites.

Programmatic Ad approach allows developing campaign criteria, Have a larger inventory, Base inventory information on behavioral and demographic factors, Deliver creative in websites, apps, videos, and social feeds, Track results of these creatives, Adjust campaign in real-time.

The success rate estimation is not as easy to a bidder in the Real-time bidding as he only knows his own bid and the outcome of the auction, and he has no idea about other people's bid. In other words, there is a missing attribute situation to the bidder in Real-time bidding system. A demand side success rate can only be calculated by utilizing large chunks of data with partial missing attribute [1].

V. BEHAVIORAL TARGETING

Real-Time Bidding (RTB) is an important factor in the Programmatic Marketplace. RTB is the ability to adjust a campaign and bids for an ad space based on demographic, sociographic, behavioral, or other types of data.

The processing of data generation for Real-time Bidding focuses on Audience targeting at micro level [3].

Behavioral targeting is a technique to target users based on their behavior such as Sites visited, Content viewed, Interests and patterns and Browsing history. Once these users are marked as target audience, then the ads can be placed in front of them.

Through Programmatic systems, a bid can be made on Yahoo, YouTube and Facebook through an ad exchange in real-time to show a specific ad to one anonymous user in a specified context on a targeted device.

Together, Programmatic and RTB allows achieving a high degree of customization. In Real-Time Bidding there are two sides of the bidding process as shown in Fig. 1. Advertisers use Demand-side Platform and Publishers use Supply-side Platform.

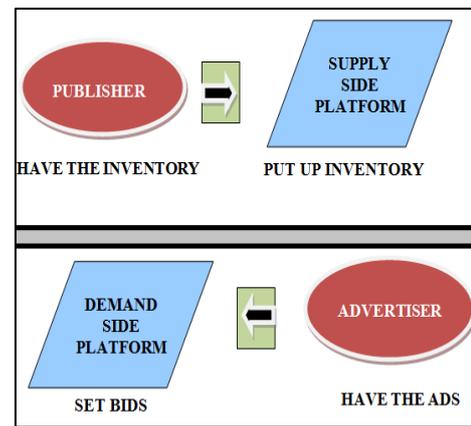


Fig. 1: Real- Time Bidding: Demand Side Platform and Supply Side Platform

Demand side platform allows advertisers to:

- Set up their campaigns, determine the triggers, timing & pricing priorities, and study trends
- Input their criteria and upload their creative and ad types to target specific users.
- Set bid amounts

Supply-side Platform allows publishers to:

- Put their inventory on the market
- Put up impressions, ads, and ad types available.

Price depends on demand and supply. Both publishers and advertisers have insight into how supply-demand affects the price. High demand to reach a specific user at a given time drives up the price. Advertisers change their bids based on demand, geography, regency of website visit, search history, and other factors. Programmatic Direct keeps the system of bid transparent to both the advertisers and publishers.

VI. PROGRAMMATIC WORKFLOW

Publishers manage their inventory through the Supply-side Platform (SSP). Advertisers create and upload campaigns and set bids for ads through the Demand-side Platform (DSP).

Data Management Platform helps publishers and advertisers to match the right ads to the right users. DMP helps the publisher's SSP to determine the best platform choice in order to maximize the ad revenue. DMP in the advertiser's DSP evaluates users for relevancy based on their behavior and online history.

VII. WAYS OF TARGETING AUDIENCES

There are mainly three ways for targeting audiences given in Fig. 2.

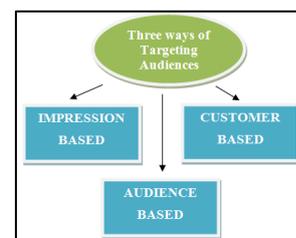


Fig. 2: Three ways of Targeting Audiences

VIII. TARGETING STRATEGIES

Users are targeted with the first party data and third party data.

A. Target Users using First Party Data

First-party includes data from Users visiting a website, Existing customers, and Customer Relationship Management system. When user visits a website the information stored in cookie files, such as time of visit and potential for return, is used to retarget those users. As in case of existing customers,

they are targeted with data already available such as names and email addresses.

B. Target Users using Third Party Data

Third-party includes data that is aggregated through other networks or ad servers, Anonymous list of users and collected through partners, ad-tracking, and other third-party systems.

Parameters	Impression based Targeting	Audience based Targeting	Customer based Targeting
Based on	Third Party data	Third Party data	First Party data
Purpose	Advertisers do not know the users; instead they are looking to match an audience to their ad based on location, content, demographic, and socio-graphic factors.	Audience-based targeting relies on Search retargeting, Behavioral targeting, and Lookalike targeting.	Customer-based targeting allows a wider ability of targeting campaigns to a small, specific group of users through their purchase history and buy checking cookie on their device.
Used for	<ul style="list-style-type: none"> - Branding - Brand awareness - Lead generation 	<ul style="list-style-type: none"> - Individual customers - B2B approach 	<ul style="list-style-type: none"> - Lead generation - Customer development

Table 1: Comparison between Impression based, Audience based and Customer based targeting approaches

IX. DIGITAL ADVERTISING FRAUD

Fraud is a huge problem in both Online and Programmatic Advertising. It has become a problem as the system has become automated. It is difficult to track and distinguish several kinds of fraud. Also, differentiation between a real user and a fake one is also a tedious job.

Digital advertising fraud is estimated to be as high as 7–8 billion dollars a year. The fraud takes 1 out of every 3 dollars spent in Digital Ads. One out of three video ad impressions are seen by humans and two out of three ad impressions are seen only by bots.

Videos are the primary target of bots because of the higher Cost per mille paid by the advertisers. There are several kinds of frauds such as Bots, Malware, and Advertisements on illegal copyrighted content, and Cash out sites, Fake accounts, and Fake data.

A. How to Tackle Ad Frauds

There are following five ways to tackle the ad frauds:

- Manage and maintain a blacklist -Check and evaluate activities on unfavorable domains as 80% of legitimate traffic is from 20% of your domains.
- Utilize View ability - Only pay for ads that show above the fold.
- Bot detection - Use ad verification services such as big data to detect the difference between human and bot activity.
- Track beyond Click-through rate - Make sure to determine your true ROI and look at your lead rate, sale rate, and CPA rate.
- Third-party verification

B. Challenges in Tackling Ad Frauds

An industry-wide effort on the part of both advertisers and publishers is required to clean up the system and eliminate fraud. There are a lot of calls to reform the ad system but less effort is made to combat this ‘illegal’ activity. Making money from ad fraud is easier than many other types of illegal activities.

No one is making an effort to engage, enforce, or shut down this illegal activity. As a result, fraud has become the favorite activity of those willing to make a lot of money in a system where there’s not a lot of tracking and very little government enforcement.

X. CONCLUSION

Programmatic Ad Buying is an automated process that replaced the traditional method of buying ads. Traditional ad marketplace has limited tracking and lack of transparency. Both the publishers and advertisers are the biggest player in the game of marketing. The goal of the publisher is to receive maximum money from every ad whereas the goal of the advertiser is to pay the least for the maximum response. Advertisers track a specific group of users based on their behavioral factors. Several targeting strategies can be used to divert the customer towards the sales funnel. Finally, an effort should be made to stop the unlawful activity of Digital frauds.

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