INTRODUCTION TO ONLINE ADVERTISEMENT AND ITS BUSINESS PROCESSES

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ABSTRACT

This paper introduces you to the market of online advertisement, different terminologies and business processes used and the future of online advertisement, also emphasizing how much of an impact it is going to have on the world economy.

KEYWORDS: URL(Uniform Resource Locator), Click through Ratio(CTR), Real Time Bidding(RTB), Cost PerClick(CPC), Cost Per Mille(CPM), Ad Networks, HTTP(Hyper Text Transfer Protocol)

INTRODUCTION

Online advertising, also known as Internet advertising or online marketing, is a type of advertising that uses the Internet to deliver its marketing message to consumers. Since its inception in the early 90's, Internet advertising has exponentially increased in growth. According to the Internet Advertising Revenue Report from the Interactive Advertising Bureau (or IAB), Internet advertising revenues in the US climbed to a historic high of $12.4 billion for the third quarter of 2014, representing 17% growth year-over-year. This figure reflects how brands are embracing digital as a must-have in their marketing mix. Accorinding to statistica.com, Google's revenue from online advertisement was approxmitely 59.6 billion US dollars,which accounted for 89.6 percent of the total revenue of Google. Internet adversting is done in different formats and includes search advertising, social media advertising, display advertising (including web banner advertising), and mobile advertising. It is used widely across all industries.

Advantages of Online Advertisement

- Better Targeting

- Accuracy in measuring response ROI(Return on Investment)

- Less wastage (PPC i.e. Pay Per Click etc.)

- Elicit immediate response

- Greater Interaction

- Message Tailoring

- Immediate publishing of information

Types of Ad Formats

- Banner Ads: Banner ads are image-based, usually in the form of rectangular graphic display that stretches across the top or bottom of a website or down the right or left sidebar.

- Text Ads: These ads contain words rather than images. Text ads consist of an Ad Title, Ad Description, and a Display URL. A text ad can be found in both search results and content pages.

- In-text Ads: In-text advertising is a form of contextual advertising where specific keywords within the text of a web-page are matched with advertising and/or related information units.

- Rich Media: While text ads sell with words, and display ads sell with pictures, Rich Media ads offer more ways to involve an audience with an ad. The ad can expand, float, peel down, etc. And you can access aggregated metrics on your audience's behavior, including number of expansions, multiple exits, and video completions.

- Video Ads: Video Ads refer to advertising that occurs on Internet television, served before, during and/or after a video stream on the internet. The ad first appears as a static opening image. When a user sees the image, it is counted as an ad impression. The video will play if the user clicks the image or play button.

- Interactive Ads: Interactive advertising refers to promotional techniques that include an element of feedback from those to whom the advertisements are directed. This feedback gives the advertiser analytical data that can be used to improve the advertising methods being employed.

Formats of Serving

- Pop-Ups/Pop-Under: They are generally new web browser windows to display advertisements. There's no standard size for popup ads. Pop-under ads are similar to pop-up ads, but the ad window appears hidden behind the main browser window rather than superimposed in front of it.

- Interstitial ads: An interstitial ad is a full-page ad that appears before or after the actual webpage. Interstitials are more likely to contain large graphics, streaming presentations, and applets than conventional banner ads

- Overlay ads: The Overlay Ad is a graphical ad in the bottom third of the video display that displays while the video plays. Ad overlays can be a scroll, ticker, or watermark image. Your regular text ad will be considered a text overlay ad when you target it to show with online videos.0

- Mobile Ads: Mobile advertising is ad copy delivered through wireless mobile devices such as smart phones, feature phones, or tablet computers. Mobile advertising may take the form of static or rich media display ads, SMS or MMS ads, mobile search ads, advertising within mobile websites, ads within mobile applications or games, or overlay ads at the bottom of the screen. This also comprises of In-App advertising where app developers can show ads of different format within the application

TERMINOLOGIES AND METHODS USED

The following are the basic terminologies and methods used in online advertisement.

- Ad Inventory: Advertising inventory is the number of advertisements, or amount of ad space, a publisher has

available to the advertiser. Online advertising inventory is often calculated in terms of the number of page impressions -- an impression being defined as one user looking at one ad. Ad inventory is commonly expressed in ad impressions per month. Also classified as 'Premium Inventory' and 'Remnant Inventory'.

- ATF (Above the Fold): Above the fold in website design refer to the portion of the webpage that is visible without scrolling. The portion of a webpage that is visible once the page has loaded, normally it is the very top part of a Web page. Above the fold is a key section of a Web site for advertisements and banner ads. This term is derived from the newspaper industry, referring to the portion of the front page that is visible with the paper folded.

- BTF (Below the Fold): The part of the page that is not above the fold. The part of a webpage that can't be seen without scrolling down.

- Ad Impression: An ad impression is a measure of the number of times an ad is seen. Clicking or not is not taken into account. Each time an ad displays it is counted as one impression. Counting impressions is the method by which most Web advertising is accounted and paid for.

- CTR (Click through Rate): It is the ratio that shows how often people who see the ad end up clicking it. CTR can be used to gauge how well the keywords and ads are performing. CTR is the number of clicks that an ad receives divided by the number of times the ad is shown (impressions).For example: If there are 8 ad clicks out of 1000 impressions, the CTR is 0.8%

- CTR = Ad Clicks ÷ Impressions

- Invalid Clicks: These are clicks that are considered illegitimate, such as unintentional clicks or clicks resulting from malicious software. Examples: Manual Clicks intended to increase advertising costs or to increase profits for website owners hosting the ads. Once the invalid clicks are identified, they are filtered out from the account data and the advertisers are not charged for those clicks

- Viewable impressions: A Viewable Impression is a metric of ads which were actually viewable when served (in part, entirely or based on other conditional parameters). The first system to deliver reports based on a Viewable Impression metric for standard IAB (Interactive Advertising Bureau) Display ad units. Viewable impressions are an improvement on old online impression metrics, which only analyze HTTP requests in a server log, and cannot measure whether ad content was actually visible to a viewer

- Heatmaps: A website heat map is a graphical representation of visitor activity on a web page, using coloursHeatmaps are roughly divided between mouse tracking Heatmaps and eye tracking Heatmaps. Heatmaps are used for understanding which are the most engaging parts of a web page for the visitors, and using this data to make changes to the site

Pricing Models

The different types of business processes [2] used in online advertisement are as follows:

- CPC: The cost-per-click (CPC) is the amount you earn each time a user clicks on your ad

- CPA: Cost Per Action is a pricing model where an advertiser only pays for the ad when the desires action has occurred. Example: Registration, sign up, contact request, inquiry etc.

- CPM: Cost per mille (CPM), also called as cost per thousand (CPT) (in Latin mille means thousand), is a commonly used measurement in advertising.

- Revenue Sharing: In this pricing model the revenue generated by advertising on publisher's site is shared between the publisher and the ad network that help delivering the ads to the site.

USER TARGETING

With the evolution of online advertisement, the business understood that smarter advertising could increase the revenue significantly as compared to untargeted or basic contextual ads. Serving better ads requires compilation and analysis of a large amount of data. The following are the different types of targeting used:

- Contextual Targeting: Contextual advertising is a form of targeted advertising which places ads on websites that are related to the content of the website. A contextual ad system scans the text of a website for keywords and returns ads to the web page based on what the user is viewing, either through ads placed on the page or pop-up ads.

- Geographical Targeting: This method involves determining the geographical location of a website visitor and then serving ads to that visitor based on his/her location, such as country, state, city, metro, zip code etc.

- Demographic Targeting: This involves tailoring your display ads to focus on a segment of the population based on their characteristics. Characteristics such as: Gender, age, income, education etc.

- Search Targeting: Search targeting is the practice of placing ads based on the keywords a user enters into search engines.

- Keyword Targeting: Keyword advertising refers to any advertising that is linked to specific words or phrases. This form of targeting better suits advertisers focused on performance and cost-efficient conversions since ads will provide useful information to readers and attract an audience with an established interest in your message.

- Retargeting: Retargeting is a method that works by keeping track of people who visit a website, and then displaying ads of that website to them as they visit other sites online Retargeting works by placing anonymous retargeting cookies in the visitor's browser, which then allows retargeting vendors to display ads to them on other sites.

- Behavioral Targeting: Behavioral targeting [5] uses visitor's web-browsing behavior information to target ads. It is an effective way of advertising as the ads are more relevant to the visitor's interests and preferences.

REAL TIME BIDDING

Traditional online display advertising was inefficient. For Advertisers, the CPM model of buying impressions in bulk was lacking because they were purchasing impressions for the same price per unit, even though each one has a different value to your campaign. For Publishers, traditional display was inefficient because in many cases up to 70 % of their inventory was left unsold or sold for next to nothing. Further, for many small publishers, also known as 'long tail sites', there wasn't a sales team which can properly sell their quality, targeted inventory, leaving them wanting more from display. Online advertising needed a shakeup to provide more value to both advertisers and publishers. That is when RTB

came into the picture

RTB allowed display inventory to be purchased by the individual impression through a bidding system that unfolds in the milliseconds before a webpage is loaded by a consumer. The targeting and cost efficiency opportunities presented by RTB made it a revolutionary force in the online advertising landscape.

Elements in Real Time Bidding

- The Demand Side Platform: The Demand Side Platform (DSP) [3] is a tool that automates the purchasing of online advertising on behalf of advertisers. Advertisers use DSPs to set the buying parameters of their campaigns and to monitor campaign performance.

- The Supply Side Platform: The publisher provides the inventory. Originally, real-time bidding was only used on unsold remnant inventory, however it is being increasingly used on premium inventory due to advertiser demand and the higher revenues it is yielding for publishers. Publishers use Supply Side Platforms, or SSPs, to help better manage and sell their inventory.

- The Ad Exchange**:** Ad Exchanges are often compared to stock exchanges, however an ad exchange is really a software tool that connects advertisers and publishers, facilitating the purchase of display inventory in real-time through auctions that take place in the milliseconds before a page loads. It is through these auctions that publishers are able to maximize the price for their inventory, while advertisers are able to purchase individual impressions at prices that reflect each impression's value to the campaign

How RTB Works

At its most basic form, the RTB process unfolds in the following manner:

- The publisher provides its inventory to an Ad Exchange, who is responsible for holding an auction, during which the DSPs, on behalf of the advertisers, will place a bid on each impression**.**

- The value of the bid is based on the value of that impression, as determined by the advertiser's parameters with the DSP. The bidding process ensures that each impression is sold at the maximum price, as dictated by real time market demand.

- Once the bidding is completed, the winner is chosen and the ad is served on the publisher's website
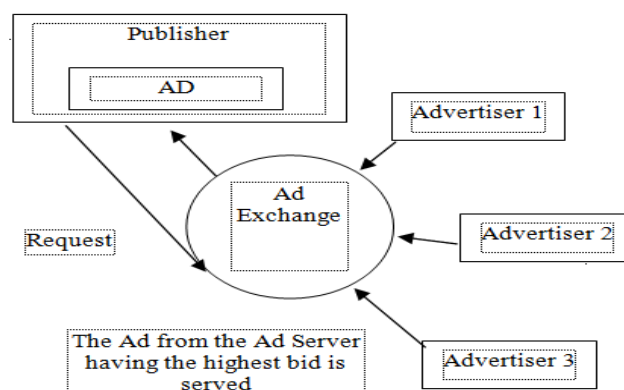

Figure 1: Diagrammatic Representation of the Working of RTB

Benefits of RTB

For ad exchanges:

- Increased control over inventory

- Better Spending Efficiency

- Improved Results for clients.

  For Advertisers:

- Enhanced Consumer Targeting

- Cost effective reach

- Elimination of wasted impressions

  For Publishers:

- Higher revenue as it maximizes the value of each impression

CONCLUSIONS AND FUTURE SCOPE

The online advertising industry is growing at a much faster pace. The increase is driven by growth in display advertising, social media, online video advertising, and mobile advertising. With the increased Internet penetration and mobile usage, end customers around the world are driven more by technology. This provides a right opportunity for advertisers and marketers around the world to reach the right audience at the right time in the most effective way.

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