INSIGHT SERIES

The ABCs of Programmatic

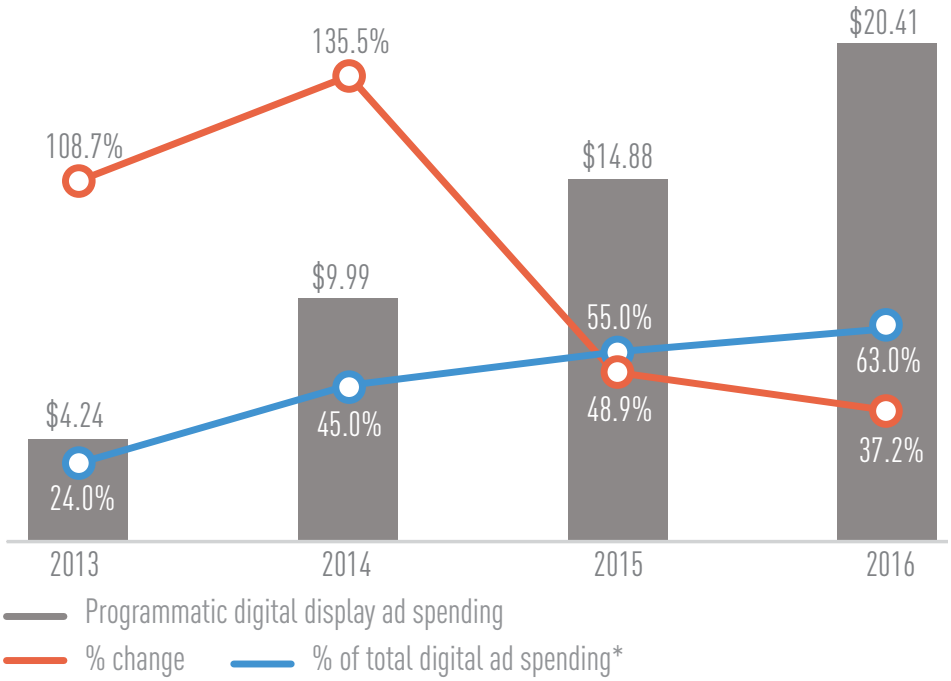
Marin SOFTWARE

You're probably well aware of the programmatic "revolution" taking place.

Although spending on programmatic is still a small subset of the total digital advertising market, in this increasingly data-centric age, that's changing. According to eMarketer, growth in programmatic display spending more than doubled in 2014, with US advertisers devoting $10 billion to programmatic display. eMarketer expects this spending to double again by 2016, to $20+ billion, making up 63% of all US display ad spending. At that point, it'll go from being a small, strategic part of the marketing mix, to the dominant part of spend.

US Programmatic Digital Display Ad Spending, 2013–2016

billions, % change and % of total digital display ad spending*



Note: digital display ads transacted via an API, including everything from publisher-erected APIs to more standardized RTB technology; includes advertising that appears on desktop/laptop computers as well as mobile phones and tablets; *includes banners, rich media, sponsorship, video and other
Source: eMarketer, March 2015

While most of programmatic growth thus far has been in display advertising, the opportunity is actually much broader. In fact, of the projected $20 billion spend on programmatic, most of the growth and most of the spend (close to 70% of it) will be on mobile, and across desktop and mobile, video will also make up a significant chunk of that spend.

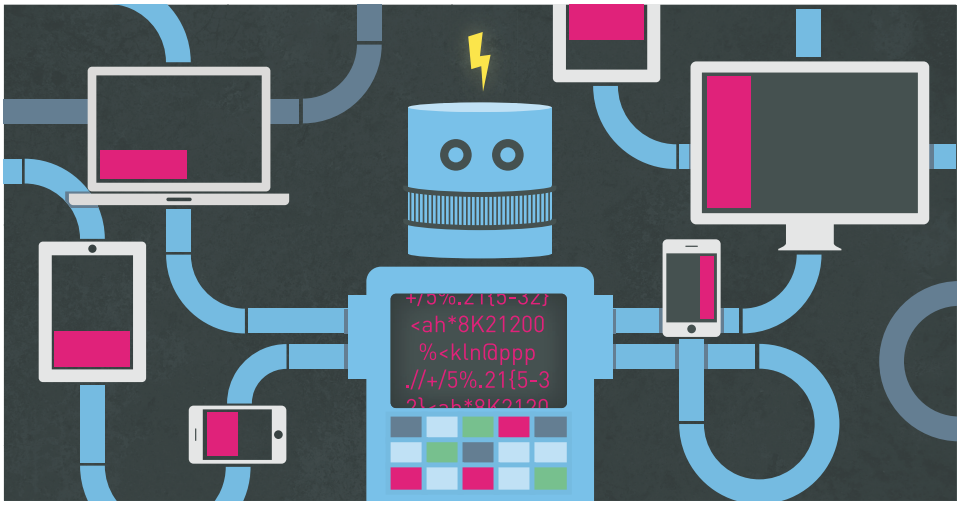
While programmatic may be changing the way marketers are targeting audiences and buying media, there's still a lot of fuzziness around the players and the terms being tossed around. Some of that has to do with the evolving nature of the programmatic business itself. On the other hand, a large part of that can be attributed to the fact that the "ad tech" industry has done a poor job of explaining itself.

In the following, we're going to focus on some of the major terms advertisers are likely to encounter as they start delving deeper into the programmatic world. We'll cover the different types of data, the players in the programmatic ecosystem, and the different ways ad inventory is bought. And, we'll try to define them in as plain-language as possible.

What We'll Cover

1. What does programmatic mean anyway?
2. Data – the building blocks of programmatic
3. Targeting – what advertisers do with data
4. The programmatic ecosystem – the gatekeepers, buyers, and sellers
5. The many (jargon-rrific) types of programmatic advertising
6. Retargeting – one small step for programmatic
7. Mobile and cross-device targeting – going beyond the desktop

What does programmatic mean anyway?



If you're unfamiliar with programmatic advertising, it can be hard to find a good, solid definition for it. It seems to mean different things to different people.

Perhaps the best way to think about programmatic is to think of it as a way to buy and sell advertising where the process is somewhere between automated and programmable. Because parts of the process can be automated, it's a more efficient way to buy ads. There's less manpower involved, and more opportunities to leverage data in real-time.

However, programmatic isn't completely automated. People are still a necessary part of the process. Some programmatic channels, like video or native, offer less automation than others, like desktop display advertising. And people are still crucial to making the right strategic targeting and performance optimization decisions.

For our purposes, then, let's say that programmatic advertising is more like flying in autopilot; most of the decisions can be handled by the technology, but you still need a pilot in the cockpit to decide where to go, and to occasionally take over the controls.

Data – The Building Blocks of Programmatic

1st vs. 2nd vs. 3rd party data

First-party data is data a company collects directly from its customers

Second-party data is similar to first-party data, except the original company is sharing its data directly with a second party

Third-party data is data that is collected from customers by a company that isn't directly involved in the transaction

Data represents the building blocks of programmatic advertising. It's the currency that drives results. The more, high quality data you can collect and use, the more effective you can be in finding and targeting potential customers.

First-Party Data

First-party data is collected implicitly through web site behaviors, search queries, and purchase activity. It's also information a user explicitly provides such as their name, address, demographic information, and any other personally identifiable information.

Why are companies protective about their first-party data?
Strategies and targeting models are only as good as the data they're built on. A company's first-party data represents the most valuable source of data because it's unique, relevant, and accurate. Any good marketing effort should begin by maximizing first-party data.

Second-Party Data

Second-party data is another company's first-party data that is made directly available for other companies to use. This data can be made available through direct partnerships, data management platforms, or a second-party data network.

How do companies use second-party data?
Second-party data is useful for finding new customers. It offers some similar benefits to third-party data, in that it can be a very effective way to expand reach and directly target new, qualified prospects. And although it doesn't offer the same scale that third-party data offers, the data is of higher quality, so prospecting with second-party data often drives better, more cost-efficient performance.

Third-Party Data

Third-party data is anonymized data that's been collected or bought from a variety of different sources by data brokers. Advertisers can typically buy third-party data management platforms.

What are the pros and cons of third-party data?
The main benefit of third-party data is that the breadth of data is huge. Demographic information, for example, is one of the most commonly used types of third-party data, but any number of interest, affinity, or in-market data is available as well. If you're looking for an audience of Honda Civic owners who've traveled to Spain in the past year, you can find that data. The downside, however, is that the data itself can be costly to use. And it's not uncommon for performance to fall short of expectations, because the quality can vary widely depending on who's providing the data, how it's collected, and how frequently it's collected.

Intent Data

Actions are precipitated by intent. Intent data helps advertisers figure out what their customers are trying to accomplish, and be smarter with their targeting and creative strategies.

What are some of the more valuable types of intent data?
Almost every single interaction a customer takes – whether they visit a web site, like a page on Facebook, or search for a phone number – can be considered intent data. However, not all intent data is relevant or useful. For simplicity's sake, there are at least two basic types of intent data an advertiser should collect:

- **Behavioral intent**, collected from on-site actions
- **Search intent**, collected from search engines like Google and Bing, as well as on-site searches

These signals tend to be the most predictive and valuable in driving ROI.

Targeting – What Advertisers Do with Data

The true promise of programmatic is advertising that's delivered on an individual level. In the past, a brand might have tried to find their target audience by buying ads based on a publisher's visitor demographics, or the content on a page. Programmatic, however, enables advertisers to focus on the who, and not worry about the where. It enables brands to find and reach users based on their individual characteristics, behaviors, and affinities regardless of where they are on the Web.

The following provides an overview of the major forms of programmatic (and non-programmatic) targeting.

Audience

New in name but not in practice, audience targeting involves buying and delivering ads to a particular audience segment. It's the core promise of programmatic. Audience targeting can take into account any number of data signals, including behavioral, intent, demographic, and so forth.

Behavioral

Behavioral targeting is a type of audience targeting that involves reaching users based on the actions they've previously taken. Most commonly, these actions are trackable web events like what pages a person has visited, what products they've viewed, or what conversion events they've attempted. But, it can also include offline signals like whether they've visited a store or purchased a particular item.

Contextual

Contextual targeting is an old school method for reaching and targeting new audiences based on the content on the page where the ad is served. For example, a car company might try to find potential customers by buying inventory on car enthusiast sites, or a relevant article on a general interest site like Yahoo or The Wall Street Journal. It's not a bad way to target people based on potential interest, but it's not particularly sophisticated, either.

Cross-device

Cross-device targeting involves identifying a user by matching different data points across multiple devices, and then serving those users with ads across those different devices.

Is cross-device targeting the same thing as mobile retargeting?
Today, mobile retargeting may be the most common use case for cross-device targeting, but it's just one subset of cross-device targeting. Cross-device targeting covers a broader scope that includes targeting users across:

- Different desktop devices (e.g., a work PC and a home PC)
- Different mobile devices (e.g., a phone and a tablet)
- Desktop and mobile devices (e.g., a phone and a PC)
- Non-traditional devices (e.g., a PC and a smart TV)

Demographic

Demographic targeting is a basic audience targeting strategy that involves serving an ad based on a web site visitor's demographic information such as age, gender, or income.

Intent

You can think of intent targeting as a superset of behavioral targeting that looks for the "why" a user might have taken a particular action. For example, if a prospect views a product – what does that mean? Are they just doing research? Are they looking to buy it for themselves or for someone else? Intent targeting often involves looking at other signals such as previous behaviors, search queries, and social media activity.

Is intent targeting difficult to do?
Intent targeting isn't necessarily difficult, but it does require tools and a willingness to test. Tools are necessary to identify and categorize intent data and make it usable, whether it's search or behavioral data. The right tools can also help determine which intent signals drive the most value, although they are by no means definitive. Certain signals, such as branded search keywords, can drive results because they focus on bottom of the funnel intent. Other signals are less obvious and require a process of trial and learning. Like any effective advertising method, there's a bit of art and science required to make it work.

Location

As the name indicates, location targeting (also referred to as geotargeting) involves serving ads to users based on their location data. IP addresses, Wi-Fi triangulation, and GPS data are the most common ways to geo-target users.

iBeacon

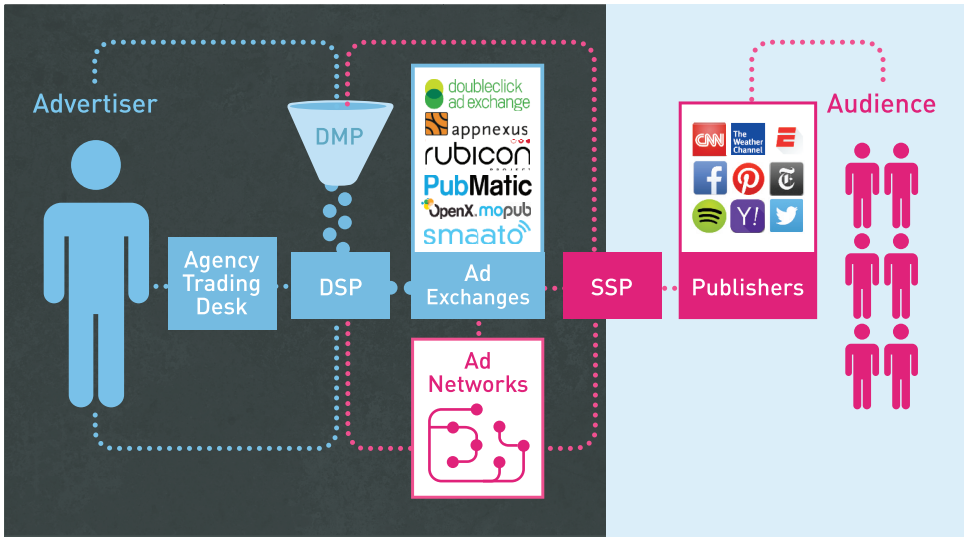
Targeting with iBeacons is a new, quickly growing subset of location-based targeting. Unlike geotargeting, iBeacons don't use traditional location data like IP addresses, Wi-Fi, or GPS data. Instead, brands place iBeacon transmitters (often in retail locations), and the transmitters use Bluetooth to pick up and send signals to and from Bluetooth-enabled phones. Because Bluetooth has limited range, this gives marketers a much more precise idea of a user's location – whether they're passing by a store, browsing a particular department, or at the checkout line.

What are some use cases for iBeacon targeting?
One of the more promising use cases for iBeacon targeting is segmenting audiences based on real-life, in-store behaviors, and delivering highly relevant and personalized offers to the user. Think of it as reality-based retargeting.

Lookalike Modeling

Lookalike modeling is a prospecting tactic that targets audiences who share similar characteristics or behaviors with an advertiser's web site visitors, email lists, or customers. Lookalike audiences are determined algorithmically, taking into account many different signals. This Guardian article is worth a read for more in-depth insight on how lookalike models are built.

The Programmatic Ecosystem – The Gatekeepers, Buyers, and Sellers



This is where programmatic starts to get confusing, lost in its own jargon and catalog of acronyms. In this section, we'll outline the major players within the programmatic ecosystem and their main functions.

The Advertiser

If you're reading this, this is probably you. The advertising world wouldn't exist without the companies that buy the ads.

The Publisher

Publishers are all the publications, web sites, and mobile apps that create and deliver the real value – the content – as well as the ad space that advertisers buy.

Ad Exchanges

Ad exchanges are the backbone of programmatic ad buying, and a major driving force for the display advertising renaissance over the past few years. Ad exchanges are essentially marketplaces where advertisers and publishers buy and sell ad space programmatically. Publishers make their inventory available and advertisers then bid for those ads, often in real-time, based on how much a particular visitor is worth to them.

How are ad exchanges different from ad networks?
There are a few major differences between ad exchanges and ad networks:

- On ad exchanges, ads are sold one impression at a time, often in real-time, whereas ad networks tend to sell them in bulk. Although programmatic direct transactions (defined below) blur the lines a bit, generally, ad exchanges maximize the value and efficiency of each available ad unit compared to ad networks.
- Ad exchanges offer more transparency. An advertiser bidding on an exchange will have visibility into the site, the ad unit, and the audience they're bidding on. In contrast, because ad networks transact mainly in bulk, they offer much less visibility into that information.
- Ad networks are essentially middlemen between advertisers and publishers. By cutting out the middlemen, ad exchanges offer a more cost-effective way to buy ads.

Ad Networks

Ad networks are like the older, less capable big brother of the ad exchange. Like ad exchanges, ad networks aggregate inventory across multiple publishers and package it up, helping advertisers buy ads at scale more efficiently.

Are ad networks still relevant in this age of programmatic?
While ad networks don't offer the same targeting sophistication that ad exchanges do, they can still be a simple, efficient way to scale your media buy across a large number of publishers. Although more advertising spend is moving towards programmatic channels, ad networks won't disappear anytime soon.

Data Management Platforms (DMPs)

Advertisers use DMPs to collect, store, and leverage their first-party audience data. DMPs also aggregate data from third parties and make it available to clients to use in their advertising.

What is the difference between DMPs and DSPs?
DMPs exist to store and manipulate data. They act like a very large, complex database. While DSPs can also capture audience data, their data management capabilities are more limited compared to DMPs. DSPs' specialty is taking data from DMPs and using it to inform media buys.

Demand-Side Platforms (DSP)

A demand-side platform is a tool that enables marketers to bid on and buy ads from ad exchanges.

Are all DSPs the same? What are some differences to keep an eye out for?
DSPs are not all the same, but some differences are more important than others. What differences are worth paying attention to?

- **Access to Data.** One differentiator of a DSP is what kind of data it lets an advertiser access and leverage. Some DSPs specializing in leveraging unique first-party data, like search intent, while others allow access to third-party data through DMPs. Some DSPs can connect into CRM data, while others excel at collecting mobile data.
- **Quality of reach.** For the most part, reach itself is a commodity. Most DSPs connected to the major ad exchanges deliver 95%+ of the reach and impressions. The benefit of being connected to the five largest DSPs and the rest of the other hundreds of DSPs is marginal. However, not all DSPs deliver the same type of reach. DSPs that have direct integrations with the ad exchanges can offer different types of inventory beyond real-time bidding (RTB) inventory. DSPs can also have significant differences in cross-channel reach. For example, some DSPs offer access to native FB inventory via an API connection, while others may only offer access through Facebook Exchange.
- **Transparency.** This can mean different things to different people, but generally advertisers tend to be most concerned with pricing transparency. Pricing transparency is largely dependent on how the DSP charges its users – whether on a CPM or CPC basis. DSPs that price on a CPM basis tend to be more willing to make their margins known, whereas DSPs that price on a CPC basis will not.
- **Service model.** There is a wide range of control over campaign management and optimization that a DSP might make available to its customers. At one end, some DSPs may only offer a managed service model where they control every aspect of optimization. At the other end of the spectrum, a DSP may offer a self-service platform for managing and optimizing campaigns. Many of the self-service platforms typically will also offer managed services for clients above a certain spend threshold.

Supply-Side Platforms (SSPs)

Advertisers use DSPs to buy ads on ad exchanges. Publishers use SSPs to sell their ads on ad exchanges. It's basically the mirror opposite.

Do advertisers care about supply-side platforms?
For the most part, advertisers don't deal directly with SSPs. However, for advertisers who also act as publishers, choosing the right SSP will help them maximize their ad sales revenue and yield.

Agency Trading Desk

Agency Trading Desks (ATDs) are essentially the media buying and reselling arms of major advertising agency holding companies like WPP, Publicis, and Interpublic. ATDs reflect a mix of people and technology. While media is often bought programmatically using technology like DSPs and DMPs, it's then resold to advertisers as a managed service.

What's the issue with agency trading desks and transparency?
ATDs know the cost of an ad when buying media, because they buy most of it programmatically. However, when ATDs resell the media at a markup to their clients, their clients don't enjoy the same cost transparency. Clients don't know how much the impression they're buying originally cost the agency (which is different from the past, when clients knew agencies were usually taking a 15% cut on media). This informational imbalance has enabled ATDs to "arbitrage" their media, buying media at lower costs and keeping the margins when reselling it. The worry here is that by being on both the buying and selling sides, there's a higher chance for the agency's goals to be misaligned with the client's goals. Agencies may want to prioritize selling higher margin media, whereas clients may want to prioritize higher performing media.

To be fair, while most of the transparency concerns have been focused on ATDs, this same arbitrage model exists for standalone DSPs that sell their inventory on a CPC or CPA basis.

The Many Types of Programmatic Advertising

Real-time bidding (RTB) has driven much of the programmatic growth thus far. But as audience marketing strategies mature, advertisers are looking beyond RTB and increasingly looking to different programmatic channels like private marketplace or programmatic direct deals. In the following section, we'll clarify and distinguish some of the different types of programmatic ad buying.

Inventory and Pricing Categories

Programmatic ad buying can be categorized in two ways: Is the inventory reserved or unreserved? And is the pricing fixed or auction-based?

Reserved

Reserved inventory is ad space that's sold on a deal basis to specific advertisers. Examples of reserved inventory include a two-week home page takeover, a magazine placement, or a Super Bowl commercial.

Unreserved

Unreserved inventory is ad space that is sold through an open marketplace of ad networks and ad exchanges. For example, retargeting ads available in RTB auctions are considered unreserved inventory.

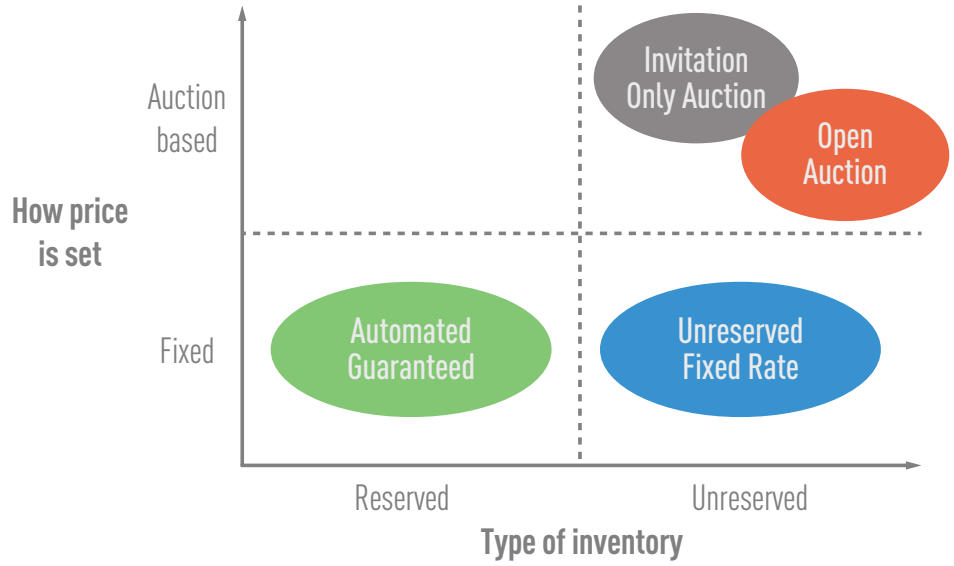
Fixed-Priced

Before programmatic, ad inventory typically had a fixed, "sticker" price. Programmatic made pricing much more fluid, as most programmatic inventory was sold in real-time auctions. However, fixed-priced inventory hasn't gone away. It represents a small but rapidly growing subset of programmatic ad buying. The difference now is, fixed-priced inventory can be bought through an API instead of a faxed insertion order.

Auction-Based

Auction-based inventory is advertising that's available to bid on in real-time. This type of inventory can be sold through open or private auctions.

Programmatic Advertising Types



Source: Interactive Advertising Bureau 2013

Automated Guaranteed

Automated Guaranteed, also known as Programmatic Direct, is advertising where the inventory is reserved and the price is fixed. Essentially, it's like old school ad buying, except instead of people making deals over three-martini lunches, now robots make the deals without the drinks and the chitchat. The RFP and campaign routing process is automated, and the deals are negotiated directly through API calls. To date, Automated Guaranteed spending has been a small part of overall programmatic spending, but the growth potential is huge. In 2014, only about 8% of programmatic display spending was on Automated Guaranteed, but by 2016, eMarketer projects that 42% of all programmatic display spending will be Automated Guaranteed.

Is Automated Guaranteed the same as Programmatic Direct?

Yes . . . for the most part. Sometimes advertisers will make a distinction between "Reserved Programmatic Direct" (a.k.a. Automated Guaranteed) and "Unreserved Programmatic Direct" (a.k.a. Unreserved Fixed Rate, described below). But, as far as the IAB definition goes, "Programmatic Direct" is Automated Guaranteed.

Unreserved Fixed Rate

Unreserved Fixed Rate, more commonly referred to as "Preferred Deals," is ad inventory that's unreserved but has a fixed price. Preferred Deals enable advertisers to purchase inventory without fighting for it in the open market.

How do Preferred Deals work?

With Preferred Deals, publishers can make blocks of inventory available to advertisers to buy at fixed prices before it hits the auction environment. A Preferred Deal is kind of like trying to sell your old television. You set a price for it, and then offer it to a few of your friends giving them the right of first refusal: "It's all yours if you want it – otherwise, I'm selling it on eBay." Inventory that doesn't get sold via Automated Guaranteed or through Preferred Deals will often then get sent to the auction.

Invitation-Only Auction

An Invitation-Only Auction, more commonly referred to as Private Marketplaces (PMP) or Private Auctions, sets the ad price dynamically based on a real-time auction. However, Private Marketplace auctions are exclusive. If an open RTB auction is the eBay of programmatic, you can consider Private Marketplace the Sotheby's – you need to be invited (or have invited yourself) to the party in order to participate.

What are the benefits of Private Marketplace deals?

Advertisers like Private Marketplace deals because they provide more control over where the ads run. Only want your ads to run on the Financial Times, Forbes, and Wall Street Journal? Then Private Marketplace is one way to exercise that control. At the same time, advertisers don't have to commit any dollars up-front as they do for Automated Guaranteed deals. Instead, like an open auction, they can continue to transact on each individual impression. Private Marketplace deals are quickly gaining popularity, and spending on PMPs is expected to triple between 2014 and 2016.

Real-Time Bidding (RTB)

Real-Time Bidding refers to ad inventory that is unreserved and where the pricing is auction-based. When marketers refer to the growth of programmatic over the past few years, they're typically referring to the growth of RTB. In 2014, 88% of programmatic spending was through RTB. And in the world of performance display, retargeting is still a largely RTB-centric world.

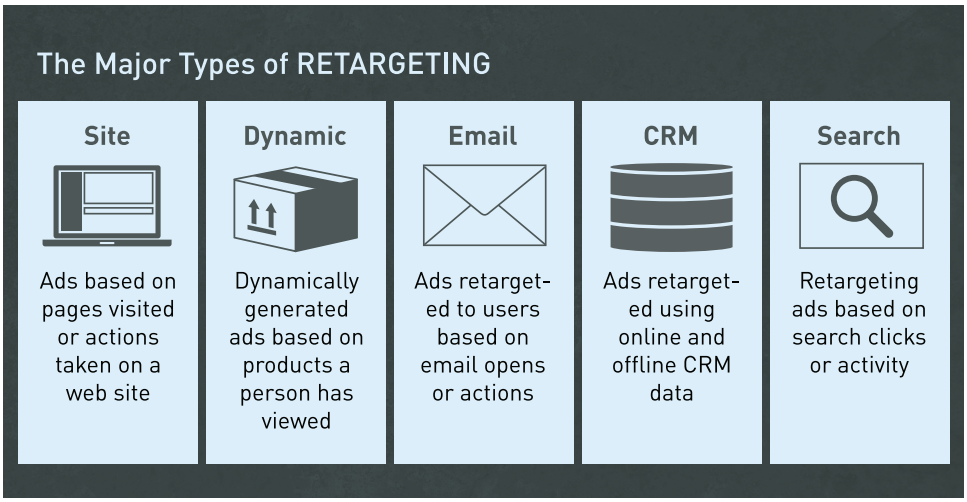
Is all RTB programmatic the same thing?

RTB is a confusing term. It's a programmatic ad format and a transactional method. Technically, it's more accurate to call RTB an "Open Auction", since Private Marketplaces also sell inventory through real-time bidding auctions. RTB also has a number of other names, including Open Exchange and Open Marketplace. Regardless of what you call it, the key takeaway with RTB is that any advertiser with a Demand-Side Platform can participate in the auction.

Retargeting – One Small Step for Programmatic

As we mentioned in the previous section, much of the programmatic growth so far has come from real-time bidding. But to be more specific, retargeting, which relies on the RTB auction, is the vehicle that has been driving all that growth.

The Major Types of Retargeting



Site Retargeting is the most basic type, where ads are served to a person based on what pages they've visited. Some remarketing platforms will even let you retarget users based on the actions they've taken on a web site.

Dynamic Retargeting is a particular type of site retargeting where the ad creative is dynamically generated to feature the products that the user has viewed during a previous site visit. Retailers tend to be the most frequent users of dynamic retargeting.

Email Retargeting requires placing a tracking pixel in an email, in order to track and retarget users who've opened the email. While nice in theory, in practice, tracking via email is ineffective for a number of reasons, from desktop clients not downloading the tracking pixel, to Google's move to caching all images within Gmail.

CRM retargeting involves matching CRM data – like an email address with online cookie data – in order to retarget that user across the web. CRM and cookie data are matched to data onboarding companies, although Facebook's Custom Audiences can serve this function as well.

Search retargeting takes a couple different forms. Advertisers can target based on search intent, in which search keywords are captured, categorized, and used to

help inform the retargeting strategy for users who've visited the advertiser's web site. Search intent data provides some of the best information for why a user visits a particular page or product. The second form of search retargeting involves "retargeting" users based on search terms on third-party sites. In this case, it would be more accurate to call this search "prospecting," as it involves targeting users who have not previously visited the advertiser's web page.

Key Retargeting Performance metrics

CPM

Display ads are usually sold on a CPM (cost per mille), or cost per thousand impression basis.

$$\text{CPM} = \frac{\text{Total Cost}}{\text{Total Impressions}} \times 1{,}000$$

eCPM

eCPM, or effective cost per thousand impressions, is the revenue generated per thousand impressions.

$$\text{eCPM} = \frac{\text{Total Revenue}}{\text{Total Impressions}} \times 1{,}000$$

What's the difference between CPMs and eCPMs?
And is one better than the other?
CPMs tell you how much you paid per 1,000 impressions. eCPMs tell you how much revenue you generated per 1,000 impressions.

With that said, although eCPMs aren't a measure of true cost, advertisers will use eCPMs to compare spending when ads are bought using different pricing models – CPM, CPC, or CPA. For example, advertisers can calculate the eCPM of ads bought on a CPC basis and compare it to the eCPM of ads that were bought on a CPM basis.

RPM

eCPMs are confusing. The name mentions cost, but it actually measures revenue. So, to minimize confusion, a few years back Google introduced revenue per thousand impressions, or RPM. Unfortunately, RPM doesn't seem to have caught on broadly, and you're more likely to see it referred to as eCPM.

CPC

Cost-per-click probably needs no introduction to search advertisers. It's simply a method for buying advertising where an advertiser pays a certain price based on a click.

Is display advertising sold on a CPC basis?
Most display ads are sold on a CPM basis, not a CPC basis. When display ads are sold on a CPC basis, there's typically a bit of a shell game going on. When publishers make their inventory available to buy, that inventory is almost always sold on a CPM basis, not a CPC basis. Some ad networks, DSPs, and agency trading desks will buy that inventory and then resell it to advertisers on a CPC basis. They do so because they can arbitrage that inventory, package it up, and price it to make a significant profit on the spread. There's an inherent lack of transparency and potential for bias when buying display advertising on a CPC basis. While advertisers may feel more secure buying display ads on a CPC basis, chances are they can achieve their same click-through goals more cost-efficiently had they bought the media through a CPM model.

CPA

Similar to CPC, cost-per-action is just another method for buying advertising, except in this case advertisers are paying a price based on a specific action like a form registration, or a click-to-call event.

Is display advertising sold on a CPA basis?
Display advertising on a CPA basis is uncommon. However, in the rare cases that it is, the same caveats of CPC display apply.

CTC

A click-through conversion (CTC) occurs when a user converts on a web site after clicking an ad.

Are click-through conversions a good measure of advertising performance?
It depends. Click-through conversions are a stronger indicator of performance towards the bottom of the funnel than they are higher in the funnel, where the goal might be less easily quantifiable (such as driving awareness). Although advertisers should include CTCs when trying to get a barometer of advertising performance, CTCs alone won't paint a complete picture of performance.

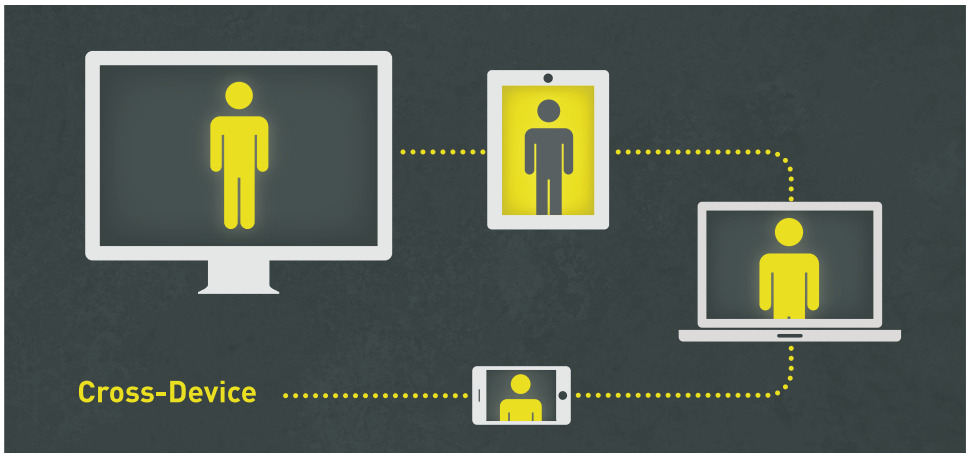
View-through conversions

A view-through conversion occurs when a user is exposed to a display ad and doesn't click it, but converts on the advertiser's web site at a later point in time.

How can you know the VTC actually deserves the credit it's getting?
The best way to determine whether VTCs deserve the credit they're getting – and more accurately, the incremental credit they deserve – is to set up ongoing A/B tests that measure the incremental lift of your ads versus a control.

Mobile and Cross-Device Targeting – Advertising in the New Millennial-friendly Age

If retargeting represents the programmatic past and present, then mobile and cross-device represent the programmatic future. And that future is much closer than you might expect.



Deterministic Matching

Matching users and devices deterministically requires using personally identifiable information (PII) like login details, device IDs, and CRM data such as email addresses and customer IDs.

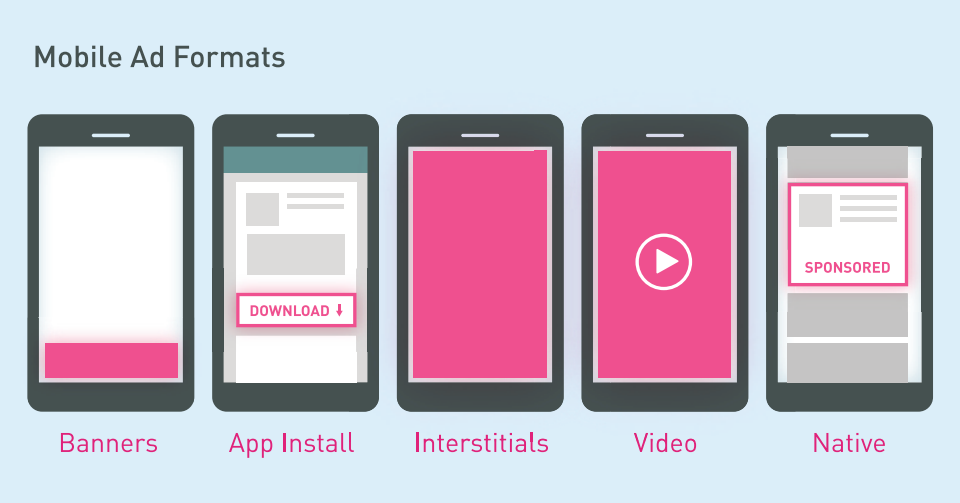
Is deterministic matching more accurate than probabilistic matching?
The short answer is yes, deterministic matching is more accurate than probabilistic matching. However, it often comes at the cost of data ownership – the major owners of login data (e.g., Google, Facebook, Twitter, etc.) have many restrictions on how advertisers can use that data outside of their respective walled gardens. It can also come at the cost of scale – for example, users are not always deterministically identifiable across every device. In practice, advertisers use a mix of both matching types.

Probabilistic Matching

While deterministic matching uses some type of PII to match users across devices, probabilistic matching relies on algorithms that tie together thousands of non-personally identifiable data points, to piece together identity and device information. This data can include information such as cookies, IP addresses, time of day, GPS signals, device data, or browser data.

What are the benefits of probabilistic matching?
Probabilistic matching is less accurate than deterministic matching, but it offers the benefits of scale and data ownership. Advertisers can take ownership of their audience and device data, and leverage it however they choose.

Mobile Ad Formats



App Install Ads

App install ads drive the user to the app store listing to complete a download. They take a number of different formats – whether it's a banner ad, an interstitial ad, a search ad, or a native ad.

Interstitial Ads

These are full-screen, typically in-app ads that interrupt the user experience, taking over the screen to show an ad and requiring the user to either engage or dismiss it. They're more expensive than their mobile banner counterparts, but also deliver better engagement results.

In what context are interstitial ads effective?
Because interstitial ads are more disruptive and also offer a more expansive creative canvas, look to them when you want to achieve higher engagement or drive awareness.

Mobile Banners

Mobile banner ads are the most ubiquitous mobile ad format, and allow advertisers to reach users both in-app and on mobile web sites. Mobile banners are significantly cheaper than interstitial ads, but engagement metrics are also significantly lower.

When should advertisers use mobile banners?
Because of its significantly lower costs and greater supply, mobile banners are the best option when trying to maximize reach and frequency.

Video Ads

Mobile video ads are mostly a subset of interstitial ads, except instead of a banner, the ad unit features an autoplaying video.

What's the mobile opportunity for video ads?
Mobile offers the perfect storm of intimacy, immediacy, and immersion – an ideal environment for people to engage with video content. According to eMarketer, more people will view digital videos through their mobile phones than through any other device. Advertisers have quickly jumped on this trend, with over 50% of US digital video ad impressions happening on mobile devices in Q4 2014.

Native ads

The definition of native ads is still fuzzy. In fact, we could write a whole white paper on the different types of native ads alone. And it should be noted that native ads have different formats on mobile versus desktop. But from a broad perspective, "native" refers to ads that fit seamlessly into an app or mobile web site's design and layout. Native ads also take the form of sponsored content marketing pieces; you can think of these as a rebranded version of "advertorials".

What are some types of native ads?
As mentioned above, native ads can take a number of different formats. On the one hand you have the long form advertorials that you might see on BuzzFeed or Yahoo. On the other hand, you have the more straightforward ads that take the look and design of the app they're running in. Good examples are Twitter Sponsored Tweets or Pinterest Sponsored Pins. Even Google AdWords could be considered a form of native advertising – although most advertisers don't classify it as such. Who knows, maybe one day Google or Bing will start sticking ads in their organic search listing and start calling them "native search ads."

The Promise of Programmatic

Programmatic advertising will only become more ubiquitous as advertisers expand their focus across different channels and devices. And while the seemingly never-ending parade of industry jargon may be intimidating, the promise of programmatic is simply the opportunity to efficiently and systematically advertise to people based on what makes them individually special.

About Marin Software

Marin Software Incorporated (NYSE: MRIN) provides a leading cross-channel performance advertising cloud for advertisers and agencies to measure, manage and optimize more than $7.2 billion in annualized ad spend across the web and mobile devices. Offering an integrated SaaS platform for search, display and social advertising, Marin helps digital marketers improve financial performance, save time, and make better decisions. Advertisers use Marin to create, target, and convert precise audiences based on recent buying signals from users' search, social and display interactions. Headquartered in San Francisco with offices in 9 countries, Marin's technology automates advertising with the largest publishers around the globe. For more information about Marin's products, please visit: http://www.marinsoftware.com