PROGRAMMATIC

AD-TECH
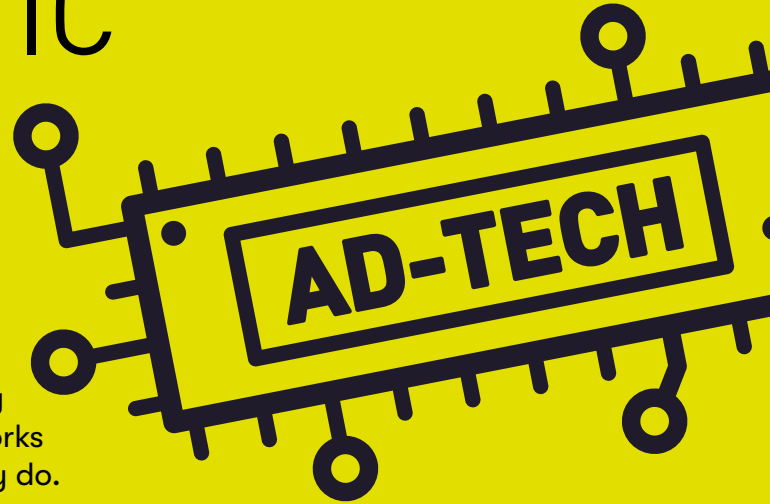
Since its introduction in 2010, programmatic has transformed the way digital display advertising is typically bought.
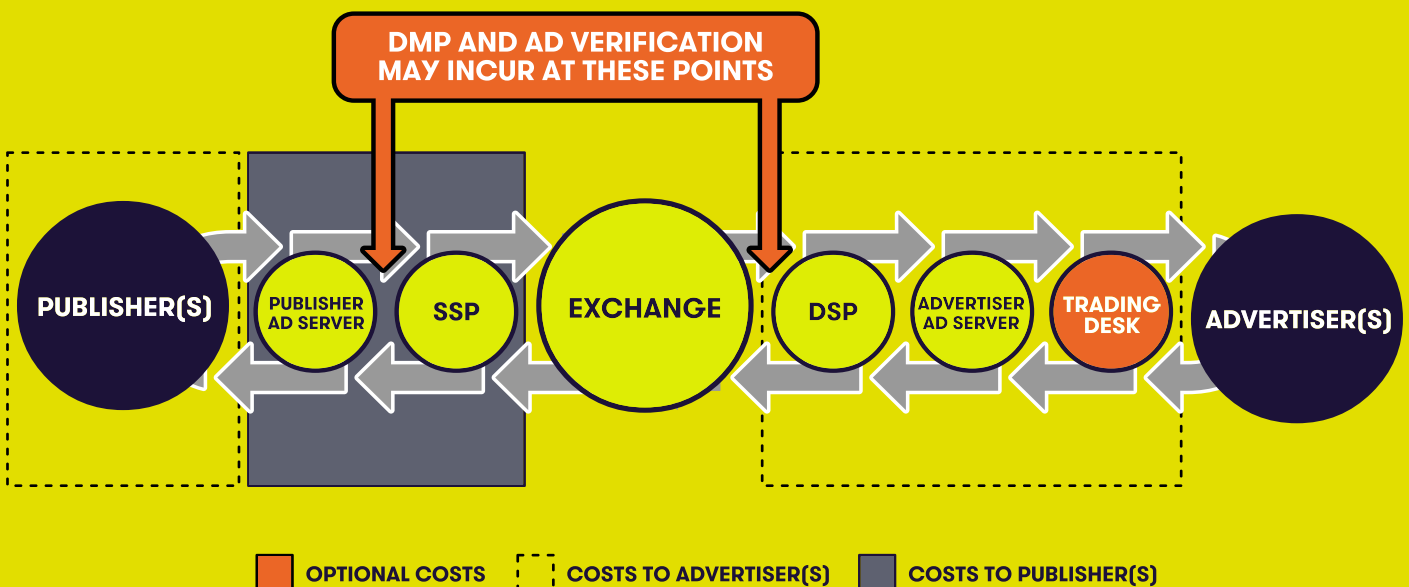
However, the speed at which the technology has emerged and evolved means that few people really understand how programmatic buying actually works and what all the players within the system actually do.

This lack of understanding has led to terms such as "leaky bucket" or "tech tax", insinuating that companies are taking a slice of the pie without adding any value.

Though programmatic does have its inefficiencies and there is still a lot of work needed to clean up the eco-system, it's very important to understand where value is being added in order to optimise digital ad spend. This guide has been developed to create more awareness of what companies within the supply chain do and what the business effects of working with them are.

Within the supply chain there are some technologies that are essential to the buy (i.e. you cannot work programmatically without them) and others that are additional technologies that you may choose to use in order to create additional value.

This diagram of the supply chain outlines who is paying for what services, as well as which costs are essential and which are optional when trading programmatically.

DMP AND AD VERIFICATION MAY INCUR AT THESE POINTS

PUBLISHER(S) → PUBLISHER AD SERVER → SSP → EXCHANGE → DSP → ADVERTISER AD SERVER → TRADING DESK → ADVERTISER(S)

OPTIONAL COSTS   COSTS TO ADVERTISER(S)   COSTS TO PUBLISHER(S)

We'd like to thank our members who we have partnered with us to put together this guide: Bidstack, Flashtalking, The Guardian, IAS, Rakuten, Rubicon, Verizon Media and Xandr.

This guide is designed to be a broad overview of the different companies within the supply chain and provide a summary of what they contribute to the programmatic process. To learn how the programmatic supply chain works, we recommend watching our 'Introduction to Programmatic' video **here**.

For more about how specific businesses operate, check out the companies that have filled out our **Transparency FAQs**.

ADVERTISER AD SERVERS

What do ad servers do?

Ad servers are responsible for creative delivery and third-party impression counting. They allow creative to be controlled, delivered and measured across all publishers on a media plan from a single place. The core role of ad servers for brands is to provide data for media reconciliation and billing, as the numbers are from an independent third party. Nowadays, in addition to delivering ads, ad servers can usually track all digital channels and report back on delivery and performance, but the biggest evolution in the role of the ad servers has been in the complexity of creative personalisation. Ad servers can have thousands of creative iterations live at any given time that are shown based on data triggers such as location data, user behaviour and page context.

Why would a brand choose to work with an ad server?

To trade programmatically, using an ad server is an essential component of the supply chain.

Brands use an ad server to get a single view of their activity across all paid digital channels including paid search, video and display. Brands also use an ad server to have a platform to create ad units, to target creatives at specific audiences and then to measure performance. As a result, ad servers are usually best placed to provide a complete view of customer journeys or conversion attribution.

What are the main functional differences between different ad servers?

Some agency-side ad servers focus on specific channels such as video or mobile, while others can track and deliver across all digital channels. Some ad servers are now part of bigger stacks that include other technologies such as DSPs, while some remain standalone. What's more, some focus on analytics and attribution through their data offerings, some offer self-service platforms and others offer more of a managed service model, while some provide hybrid models of the two.

Why is it important to choose the right ad server? And how should a brand choose the right partner?

One of the primary functions of an ad server is to be a third-party counting system to record media, so clients should consider ad servers that adhere to industry standards such as VAST and have accreditation from bodies such as the IAB and JICWEBS. Broad acceptance with publishers and DSPs is vitally important too. The main role of an ad server is the targeted delivery of the creative asset, so clients should select an ad server with excellent ad creation tools, dynamic personalisation capabilities and a strong data offering.

If creative targeting is to be data driven, it's also important to select an ad server that is integrated with an advertiser's other tech partners, such as their DMP or media planning tools. Additionally, identity resolution is becoming an important part of ad tech, so clients may want to consider ad servers that have identity solutions that go beyond third-party cookies – either natively or via integrations.

DSPs

What do DSPs do?

Demand-side platforms (DSP) are an essential cost when working programmatically and offer advertisers efficiency and accessibility when targeting audiences across the digital landscape.

By choosing to work with a DSP (direct or via their agency partner), brands are able to identify and target relevant audiences by leveraging their own data, or layering second and third-party data, available through the platforms. This allows them to reach target audiences across different digital channels, making for a better customer experience with the brand

Why would a brand choose to work with a DSP?

DSP is a system that allows buyers of digital advertising inventory to purchase ads from multiple sources via a single platform. The buying of inventory programmatically is done through a DSP and this technology is used by marketers to manage their campaigns.

When buying programmatically, brands can choose to buy from a publisher via an auction or make a non-auction-based buy. When choosing an auction-based buy i.e. real-time bidding (RTB), the DSP uses a back-end algorithm employing machine learning or AI to work out the value of each impression on behalf of the marketer.

What are the main functional differences between different DSPs?

- **User interface:** DSPs provide a user interface for marketers to build and deliver their programmatic advertising. The user interface between DSPs will vary
- **Algorithm and auction dynamics:** The algorithm and learnings that a DSP uses to identify the value of an impression on behalf of the advertiser will vary by platform
- **Inventory and audiences:** As DSPs plug into various supply-side sources, the inventory and audiences that can be accessed will vary by DSP. Some DSPs may specialise in the inventory and channels that they offer, while others may have a more omnichannel approach allowing brands to access supply across many channels e.g. display, app, video, connected, digital out-of-home, audio etc
- **Data and targeting:** When using first-party data, the taxonomy that advertisers can map data to varies by platform. With third-party data, the vendors that the DSP has an integration with – and therefore the data that a marketer can leverage – will vary
- **Fraud and brand safety:** The tools and controls for brand safety and ad fraud that are available through a DSP vary, along with the third-party vendors that the DSP is integrated with
- **Levels of transparency:** The level of insight a DSP can offer into how audiences are built (supply path, fees etc.) will vary by platform

Why is it important to choose the right DSP? And how should a brand approach choosing the right partner?

When choosing a DSP, it is important for a brand to first identify its primary needs and functionalities across areas such as usability, security, data, set-up and implementation, technology, analytics, inventory planning, performance management, measurement, trust and verification. The brand or agency should then prepare a brief with these requirements for DSPs to respond to.

There are approximately three to five major DSPs in the world. Some are big global players, but some markets may be nuanced and require further research to understand the full scope and reach available (e.g. China). Secondly, it's important that a brand aligns buying and execution to its company goals and objectives. If a strategy, for example, is 'mobile first' or in-app inventory, the choice of DSP will vary.

Depending on how a brand plans on working with a DSP – managed, co-managed or self-serve – the level of service support should be considered. Once functionalities and business considerations have been provided, performance and usability should be stress tested.

SSPs / EXCHANGES

What do SSPs and exchanges do?

A supply-side platform (SSP) and exchange is an essential cost when buying programmatically, in order to be able to access advertising inventory.

An SSP is a piece of software used by publishers to organise, manage and sell advertising in an automated fashion i.e. programmatically. An SSP typically works with multiple publishers to aggregate inventory into one space and to make it available programmatically. Advertisers access this inventory through a DSP and an 'exchange' is the name of the virtual meeting place for buyers (DSPs) and sellers (SSPs) to trade impressions.

Publishers work with SSPs, advertisers and agencies work with DSPs and an exchange is where these two technologies connect.

An exchange is typically integrated with multiple DSPs to open up impressions to as many potential buyers as possible, meaning that publishers can maximise the revenue they receive for their inventory by creating competition between various demand sources. Many SSPs operate their own exchange technology.

Does a brand control which SSPs they work with? If not, can they?

Brands choose the DSP(s) that they work with, which in turn impacts the SSPs that they have access to. DSPs are typically integrated with multiple SSPs and a brand is not limited to working with only one SSP through its DSP partner. Advertisers and agencies should ask their DSP about SSP partners and, from the list provided, brands can dictate which SSP should be included or excluded from the supply path.

What are the main functional differences between different SSPs?

The main differences between various SSPs lies in which publishers the SSP sells inventory for; whether it has a direct relationship with the SSP or whether it gains access through another inventory aggregator. Direct or indirect relationships with the publisher will impact the level of transparency and brand safety that the SSP can facilitate. An SSP's direct connection to a publisher can result in higher levels of data and more reporting on transactions that occurred on the publisher's inventory.

Why is it important to choose the right ad verification company? And how should a brand choose the right partner?

Working with the right SSP depends on the strategies and KPIs the brand is looking to achieve. When auditing SSPs through their DSP, brands should understand how the SSP manages data, the auction model that is used, the tracking and reporting that will be available, the audience and inventory that is accessible and the brand safety and ad fraud policies that an SSP has in place, along with any fees they may have.

AD VERIFICATION TOOLS

What do ad verification companies do?

Ad verification companies provide technologies and data that can:

- Protect digital advertising from appearing next to inappropriate online content
- Protect digital advertising budgets from being impacted by fraud
- Measure whether impressions were in view to the user being served to

Why would a brand choose to work with an ad verification company?

Ad verification technology is an optional cost when working programmatically. A brand chooses to work one in order to protect investments being wasted on fraudulent impressions, ensure that ads are visible and/or to ensure that ads are only being served against content that is appropriate to the brand.

What are the main functional differences between different ad verification companies?

Not all ad verification companies offer brand safety, ad fraud and viewability measurement holistically. There are companies that choose to specialise in just one or two of these areas. Additionally, some ad verification companies may specialise in more specific areas such as video, display, social etc.

Different ad verification companies will also have different methodologies on how they identify the content of a page, fraudulent impressions and viewability.

Why is it important to choose the right ad verification company? And how should a brand choose the right partner?

Each brand is unique and its verification partners should be able to meet specific business requirements.

It is important to consider how media will be bought (e.g. programmatic or direct), the format of the ad (e.g. display, video) and what countries adverts will be served in, to ensure that the ad verification provider can offer the measurement needed.

When buying through a DSP, brands require an ad verification partner to be integrated with the platform being worked with, and should establish what integrations or partnerships companies have in place.

If ads are being served in-app, brands should consider what ad-verification partners are able to offer measurement in the relevant apps. The Open Measurement SDK is a tool that has been created by IAB Tech Lab to ensure measurement can be tracked across all apps. You can find the full list of integrated ad verification tools here.

If the publishers being worked with are also using ad verification technology, advertisers should keep in mind that using a different partner to them may lead to higher discrepancies in the data due to the layering of technologies using different measurement methodologies.

Brands should consider these factors, along with an understanding of the countries the vendors' technologies can apply in – primarily whether they offer localised support and if they have any recognised accreditations in these countries. JICWEBS is the recognised accreditation partner for such tools in the UK

ATTRIBUTION TOOLS

What do attribution tools do?

Marketing attribution is the practice of evaluating the marketing touchpoints a consumer encounters on their path to purchase. The goal of attribution is to determine which channels and messages had the greatest impact on the decision to convert or take the desired next step. There are several popular attribution models used by marketers today, such as multi-touch attribution, lift studies, time decay, and more. The insights provided by these models into how, where, and when a consumer interacts with brand messages allows marketing teams to alter and customise campaigns to meet the specific desires of individual consumers, thus improving marketing ROI.

Why would a brand choose to use attribution tools? What are the alternatives?

While consumers are using different channels to explore and research purchases, they are leaving behind digital footprints. Attribution tools can help to make sense of the touchpoints in a consumers' complex digital world enabling advertisers to:

- De-duplicate all user touchpoints associated with an individual user and determine the influence of marketing efforts on consumers in order to optimise spend and improve the consumer experience
- Deliver optimisation recommendations down to the keyword, placement or creative level
- Assign credit PROP for every touchpoint and also use predictive analytics to produce granular media spend recommendations

Attribution is an optional cost when working programmatically. However, without this insight, marketers will not be able to pinpoint the delivery of KPIs against any channel or partner. Instead, a brand must resource and build its own in-house attribution model and insights. While being neither quick or easy, this approach can often be open to error and misalignment with industry standards.

What are the main functional differences between different attribution tool companies?

Each attribution company will work in different ways, with varying approaches to integrating into a company's marketing channels and devices. As this provides a full view of the consumer funnel, it is important for brands to understand how the chosen attribution company will work with them.

The fundamental difference between a range of attribution tool companies will be down to the methodology and options for measuring the performance of marketing. Each one will track different platforms and channels, as well as give options to customise or use 'out of box' measurement, providing alternatives to last click attribution or ROI based campaign measurement.

Why is it important to choose the right attribution tool? And how should a brand choose the right partner?

Choosing the right tool is not straightforward. Several factors need to be considered before deciding. Here are a few key points to help brands choose the perfect marketing attribution platform:

- **Ease of implementation:** Implementing an attribution tool usually involves integrating across channels. This requires a technical team to invest some time and effort
- **User experience:** A great user experience allows your team to use all the features of the tool to the maximum. It should be intuitive and simple to use
- **Integrations:** Marketing is no longer a stand-alone activity. Consider if the tool integrates seamlessly with the CRM. This will allow for more transparency and require less set-ups
- **Fraud detection and prevention:** Every marketer will tend to identify online fraud as one of the major concerns when it comes to digital marketing. Any tool worth its salt should be able to identify fraud signals and allow brands to take appropriate action

Of course, this is not an exhaustive list and there would be other considerations such as cost, quality of reports and analysis, to name a few. No one tool can incorporate all specific requirements. Here is where customisation comes into play. If a brand has niche or specific pain-points, it may need the attribution provider to customise the tool accordingly.

PUBLISHERS

What are the different ways you can work with a publisher?

Ad inventory is typically sold by publishers through four main techniques:

	TRADITIONAL	**PROGRAMMATIC**
DIRECT	**Direct Sales** Inventory bought at fixed prices directly from media owners through in-house or external sales teams, using insertion orders and manual processes to book and run the campaign	**Programmatic Direct** *(e.g.: direct deals, private marketplaces)* Inventory bought from a particular media owner using automated processes, where a direct relationship exists between the buyer and media owner in the form of pre-existing deal terms (e.g.: exclusive access and price floors)
INDIRECT	**Networks** Inventory bought at fixed prices from a third-party offering packages which aggregate supply across multiple media owners	**Programmatic Indirect** *(e.g.: open RTB exchanges)* Inventory bought on an impression-by-impression basis in real-time through an open, unreserved auction

CHANNEL

TECHNIQUE

There are three main ways you can work with a publisher:

- **Advertising:** Placement of paid messages that are designed/created by an advertiser
- **Branded content:** Paid-for content on the publisher's properties, written in the editorial style of the publisher for an advertiser
- **Sponsorship:** The opportunity for a brand to form an ongoing relationship with a publisher and their readers via content

What are the main differences between different publishers and what considerations should a brand make when choosing the publishers to work with?

Editorial content varies greatly between publishers. Aside from this there are various considerations a brand should make when choosing its publisher partners:

- **Platform:** What platform does the publisher work on? For example, website, in-app, audio
- **Audience:** What audience does the publisher reach? Consider both the demographic and scale of the audience
- **Viewability:** Where within the website and/or app will the ad appear?
- **Creative:** What creative formats are accepted by the publisher?
- **Content:** What content will the advertising appear against and is this suitable for the brand image?
- **User generated content:** Is there user generated content on the publisher's site?
- Consider the brand safety risks that this may pose