



Using Data Effectively in Programmatic

WHITE PAPER

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1. INTRODUCTION

Consumers are using an ever-increasing variety of channels and touch points across media to shop and to consume content. The interactions and behaviours across these touch points; online video, news and information sites, social media, gaming, to name a few, create myriad data points that initially can seem disconnected. Combine this fact with the increasing use of ad blocking¹ tools and the challenge of delivering relevant advertising becomes even more real.

The IAB Europe Attitudes towards Programmatic Advertising study² shows that programmatic is now mainstream, with only 13% of advertisers, 8% of publishers and 7% of media agencies claiming that they are not using programmatic technology. Advertisers, agencies and publishers have made progress in developing their strategy over the past few years and data remains key to enhancing this strategy.

As consumer's navigate through these channels and touch points they should receive only relevant and quality advertising messages and the promise of programmatic has been to reach the right consumer at the right time in the right place with the right message. This promise cannot be delivered without data about the consumer. Leveraging data intelligently can both reveal and build connections across these points that make it possible to understand and target customers as they progress through the buying journey.

Data is a hot topic but also a very generic term, it is important to understand the different types of data available in marketing:

- a) **Financial data** can be data about sales, market-share, return on investment
- b) **Market research data** can be data from media usage panels, brand studies and consumer segmentation – this data is a key source for consumer insights in marketing
- c) **Known consumer data** on the other hand, is linked to consumers such as CRM data or eCommerce sales data
- d) **Pseudonymous audience data** is also linked to individual identifiers (like a cookie or a cross-device ID), but as all links to personal data are removed. This can be used for reaching audiences on a large scale.
- e) **Campaign data** can be impressions, clicks, engagement tracked by an ad server or website analytics data is usually not linked to pseudonymous audience data – however it can be linked to make it a source of audience data.

¹The cost of ad blocking, PageFair and Adobe 2015 Ad Blocking Report - https://downloads.pagefair.com/wp-content/uploads/2016/05/2015_report-the_cost_of_ad_blocking.pdf

²IAB Europe Attitudes towards Programmatic Advertising study, June 2016: <http://www.iabeurope.eu/research-thought-leadership/iab-europe-report-attitudes-towards-programmatic-advertising/>



This white paper focusses point d, pseudonymous audience data that is used for targeting in programmatic campaigns. This white paper provides guidance on the types of audience data and how to use it more effectively.

That data is considered to be the “new oil”. Data-poor advertisers without a direct connection to their consumers, such as FMCG brands that are selling via supermarkets, hope to get closer to their consumers by understanding their engagement with advertising and owned content. Building their own segmentation, they want to become more relevant to the consumer by targeting the right person with the right message which in turn means consumer’s won’t receive advertising that is not of interest to them.

Data-rich advertisers, for example those for where a large part of the purchase journey happens online, want to extend the personalised communication from their CRM programs and existing consumers to prospect consumers.

Both groups of advertisers can benefit from collecting, analysing and activating audience data to give them a much better understanding of the fast-changing consumer needs, equip them with better tools to engage with consumers through relevant messages and ultimately to increase the effectiveness of their communications along the purchase funnel – from mass communication to the one-to-one level.



2. UNDERSTANDING AUDIENCE DATA

Advertisers are wise to consider all types of data sources to address the various audiences and goals they are trying to reach.

2.1 Buy-side audience data

Buy-side data refers to data that advertisers own or can access and use. Every time an interaction happens between consumer and advertiser, data is created. Data about their interests, their decisions, their points of contact, their activities relative to those moments of engagement, their perceived needs, the key demographic and behavioural background, and how that background compares to other consumers, length of time between the current and previous interactions, frequency of engagement, exposure to advertising, and so on.

This should serve as a robust platform from which to build insights about consumers, what motivates them, and how to reach them in the moments that matter.

The following sections start by outlining first party data which is the most valuable to advertisers, then third party data which is the most common after first party and then second party data which can be used to enhance the data.

2.1.1 First party data

First party data refers to any in-house data collected by the advertiser. Examples of this are:

- Transactional or registration CRM data, whether online or offline, from people who have made purchases at physical stores or via an e-commerce site; from sales leads; from database sign-ups, and from people who've interacted with a call centre.
- Website data and campaign performance data from email, display, video, mobile, direct mail, TV, print.

Benefits of first party data

- First party data is usually the data from which advertisers can derive the most value as it is data from consumers that have shown interest in the advertiser's offer already or are consumers already and therefore are much more likely to convert or engage.
- Within this is also the ability to create segments as broad or narrow as needed to meet the goals of the campaign.
- Specifically, CRM data tied to an email address works across all browsers and devices.



How to utilise first party data

First party data can be collected via tags on an advertiser's digital assets or by on-boarding offline data and matching it to digital identifiers, i.e. cookies

Utilising the technology of a data management platform (DMP) or the DMP functionalities within buying tools (DSP, Search or Social Bid-Management tools or Adserver) to place tags throughout the website, apps, ads or email newsletters to track the type of content consumed and the frequency in which content consumption occurs is the most common way to build up first party data in scale.

CRM data can be on-boarded with a data-matching service, which have large databases of personal data such as email addresses, phone numbers or home addresses and the cookies or other digital IDs for each of those people. The service finds the user from the advertiser's CRM database and matches them with the associated cookie. It is important to make sure that this is done in a way that complies with the relevant EU privacy legislation³.

Keeping control

Knowledge derived from first party data is a highly valuable and portable asset, and like all similar company attributes, there must be a clear understanding of who has access to the data and the reasons for their access. Failure to think through and implement sufficient data governance can result in data leakage, the term used when companies lose control over their data.

Through malice or negligence, there are risks that people will send first party data out of the company, perhaps through an errantly addressed email or through an intentional downloading of a database to a USB drive. It is important that access to first party data is monitored and appropriate encryption is used whenever possible.

There are also instances in which organisations share data with partners or suppliers. It is vital that the data holder retains control of the data and that they reserve the right to audit any organisation that has access to the data to ensure that it is not being misused. In addition, establishing some control profiles in the data can be used to track activity (e.g. receipt of unsolicited emails via subscription).

Cookies (and other identifiers for the collection of information from users, such as mobile advertising identifiers) are another key component as they are essential for proper targeting. It is important that advertisers understand, comply with, and keep track of regulatory obligations affecting the collection of cookie data. Businesses should assess whether regulatory compliance requires putting in place contractual agreements, for example to ensure that the consent of users is organised by a publisher on behalf of its third-party partners for the collection and use of cookie data where such consent is necessary. IAB Europe's e-Privacy Directive implementation centre⁴ provides guidance on compliance with the cookie consent standards of each EU member state.

Regularly checking tags on the site to ensure they are all companies usually actively engaged with can help to ensure control.

³ IAB Europe Privacy and Data Protection overview - <http://www.iabeurope.eu/category/policy/data-protection/>

⁴ IAB Europe's e-Privacy Directive implementation centre <http://www.iabeurope.eu/eucookielaws/>



Legal and privacy considerations

Advertisers wanting to maximise the value of their first party data should involve their legal and privacy teams early in the process to ensure full compliance with European data protection and privacy laws. As laws and regulation around data collection, storage, and use are constantly changing, advertisers need to continuously ensure they are processing data lawfully.

In addition to complying with relevant regulatory obligations, advertisers should also ensure that they understand and abide by their self-regulatory obligations, such as the IAB Europe Online Behavioural Advertising (OBA) Framework⁵, and their contractual obligations, such as limitations on the use of first party data for programmatic advertising.

A good way to keep on top of the latest developments regarding regulation and self-regulation is via IAB Europe's Policy Committee and its various task forces, additional market specific information can be provided by the relevant national IABs and partners.

2.1.2 Third party data

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Third party data is usually not sold but rented out, paying each time it is activated in a campaign, via a CPM cost model (cost per 1,000 impressions bought against that data) or a % of media spend.

Types of data available in a data market place

Data marketplaces offer wide range of user profiles, based on different sources:

- Interest data: categories of websites visited by user, topics of articles read by user (i.e. interested in motors, football or house redecorations).
- Purchase intent data: user searched for or viewed specific product on price comparison website or e-commerce website (i.e. new SUV, flat in city centre or baby clothes).
- Geo-localisation data: GPS or WiFi device data (using WiFi in specific places such as restaurants, public transport, airports, etc. or other mobile data providers).
- Demographic data: data declared during registration process.
- Sociographic data: social status, family and professional status, education, earnings – data available from different type of social networks.
- E-mail subscription data.
- Mobile applications data: registrations and usage of mobile apps.
- Device type.

⁵ IAB Europe OBA Framework - <http://www.iabeurope.eu/policy/iab-europe-eu-framework-for-online-behavioural-advertising/>



Benefits of third party data

The value of first party data increases dramatically when overlaid with third party data to provide a much richer picture of audience segments, including lifetime value, attributes, behaviours and content consumption. This enables:

- A better understanding of advertiser's website visitors, which in some cases can lead to modification of marketing strategy.
- Ability to increase effectiveness of re-targeting campaigns thanks to combining first and third party data.
- Foundation for look-a-like targeting, where consumers with similar profiles to those users that converted are targeted, reaching a larger group of potential prospects.
- Publishers may use third party data in order to create better experience for their users – such as articles and products recommendations and content personalisation.

Challenges of third party data

For many data-poor brands that can capture only a small fraction of their target audience via their owned channels, third party looks like a route forward. Looking into the depth and breadth of targeting segments available on the data marketplaces is often overwhelming for an advertiser.

In some smaller markets, i.e. small European markets, the volume and quality of third party data is limited. This may be due to local privacy regulation and concerns discouraging data holders to sell the data or the fact they have not yet assessed whether selling audience data is a good idea, or whether it is better to activate their audiences only via directly sold publisher targeting.

Even if third party data is widely available, challenges exist:

- Often, the data is de-branded, mixed and modelled from different sources and it is very difficult to understand where the data came from, how accurate and current it is. Some publishers may classify a person that has just read one article about the new Ferrari as “in-market for automotive”, but that segment will most likely not perform well for a compact car brand trying to generate sales.
- With some third party segments, it is unclear whether the data is true declared data, observed data or modelled.
- Advertisers rely on vendors selling the same data and segments, so it is not unlikely that brands are bidding their programmatic buys against exactly the same cookie-pool as their competitors.

2.1.3 Second party data

The limited reach and depth of first party data and the sometimes questioned quality of third party data has turned many advertiser's attention to second party data.

Second party data is someone else's first party data, for example a publisher's data about their audience. Second party data can also come from other non-competing brands, retailers or other holders of data that don't sell that data on the large third party data marketplaces. The key difference to third party data is that second party data is traded or shared directly between two parties. That brings some major advantages but also some challenges.

One advertiser can leverage the pseudonymised profile, e.g. hashed personal data, of another advertiser's consumers in a second party data partnership and target them if they fit their consumer profile. Additional behaviours from other third party sources can also added to the mix, to further supplement the pseudonymised customer profile and even more precisely target them. In this way, different verticals, such as retail and fast moving consumer goods (FMCG) , can think strategically about using each other's data to their benefit, because a much more multi-dimensional understanding of one's audience is achieved.



Benefits of second party data

- The data is purchased from a known partner, it is very clear how the data was generated and therefore much easier to evaluate the quality of the data.
- Often second party data is obtained for partnerships with companies that have complementary data sets to drive campaign performance and share insights.
- Usually the data vendor does not sell the same data to everyone on the market, therefore limiting the risk of targeting exactly the same consumers as competitors.
- The main benefit for data holders like publishers or retailers to sell the data as second party data is that they have much more control of who uses it and for which purpose.

Challenges of second party data

However, there are also some challenges in activating second party data at scale:

- As it is based on a direct connection between the data holder and the data user, it is much harder to activate than third party data, that is readily available in any DSP or DMP – including the clearing of the data costs.
- Some data holders don't have a DMP or that DMP is not connected to the advertiser's infrastructure, requiring a more complex technical integration setup.
- Some data holders don't have a feeling for the value of the data that they hold for other brands, therefore potentially making the commercial agreement complicated.

To leverage second party data at scale, DMP vendors are increasingly enabling data-cooperatives between their clients, making the sharing and selling of data as easy as for third party data but with the full control of a direct second party data relationship.



2.2 Sell-side audience data

When talking about first and second party data, it is important to be clear who the data holder is. A publisher's first party data can be an advertiser's second party data and vice versa. The data only becomes third party when it is acquired via an intermediary, i.e. a data marketplace.

First party data refers to information collected by publishers about their websites' visitors and their behaviours, actions or interests demonstrated across their websites. It can also include CRM data, subscription data, social data, or cross-platform data from mobile web or apps.

2.2.1 Value of publisher data

If a publisher has demand that outweighs supply for its online real estate and they have the ability to segment and store audience data, then selling data via audience extension or to the buy-side stakeholders could be considered. Not only will this enable a new revenue stream for the publisher, it will also enable advertisers to reach the publisher's audience across other media, satisfying the demand and therefore overcoming the lack of supply.

Advertisers, however, should be made fully aware whether they are buying the publisher's audience on the publisher's owned sites or the same audience on third party sites that may not have the same quality.

For publishers, data security is paramount; they need to ensure that the data sold is safeguarded and not used beyond or outside the terms of the sales agreement. There is benefit in utilising a trusted third party partner, e.g. a data management platform (DMP) or data exchange, as both parties can securely access and track usage.

Some advertisers prefer to buy media and data separately, as they value the premium environment from certain publishers but might consider other data partners better suited to define the audience to be targeted. Publishers with unique audience data might benefit from this as well, as they can sell all their inventory only once, but sell data multiple times as on-top revenue.



Publisher Case Study: How Hearst Activates Inventory to Improve Sponsorship Packages for Advertisers

For publishers operating in the digital space - where new content is constantly created and old content lives forever - making the most of advertising inventory can be a monetization challenge. The promise of digital is that advertisers can hypertarget ads to relevant content, even for niche subjects. While these sharply targeted ad segments are highly valuable, creating these custom packages is often a manual process that demands time and resources -- and leaves holes of unmonetized content.

Hearst Newspapers' properties SFGate and San Francisco Chronicle consider offering advertisers valuable custom sponsorship opportunities a priority, but the manual process had to be improved. With a sponsorship of the Maverick surfing competition, Hearst chose a new approach: an automated solution to enable easy, scalable creation of custom packages.

By harnessing the power of data, Hearst worked with a vendor to automate its sponsorship program unlocking revenue by creating 10 times the scale for sponsorship content. For the Maverick segment alone, Hearst grew the segment from 200 thousand to 2 million impressions through real-time segmentation, complete content analysis and extended audience targeting.

In addition to greatly increasing the amount of valuable inventory, the program brought other benefits:

- Higher CPM for inventory. By creating a well-targeted, niche package for its advertiser, Hearst was able to sell valuable content at a premium, doubling the CPM for this inventory.
- Greatly improved efficiency. This easy-to-use packaging process allowed Hearst teams to more efficiently use their time, allowing them to focus on creating new advertising packages for additional clients.
- Highly customizable packages. Hearst was able to use this solution to create extremely niche packages to match advertiser goals.



3. USING DATA EFFECTIVELY AND BUILDING A DATA STRATEGY

As outlined in section two, advertisers have access to a range of data, ranging from those self-generated to purchased, actual to modelled/forecasted information. The next stage is to understand the most effective way to use the data.

Advertisers, media agencies and media owners face a double-sided challenge: avoiding drowning in data but, at the same time, not missing the huge opportunities for engagement with their consumers and users in a personalised and effective way. The risk is not only adversely impacting user experience but also developing blind or inaccurate marketing and advertising messages and, ultimately, affecting revenue.

Advertisers today have more power than ever before to ask not only about overall campaign performance in real time, but demand each site be accountable for every impression served. Through the availability of first, second and third party data advertisers can discover the value of one impression doesn't necessarily equal the value of the next or the former. Because of this inherent variability in value, advertisers are demanding and actively using metrics focused analytical solutions to drive better campaign performance and making every impression count. Publishers can also benefit from harnessing data to deal with the shifts and changes facing the industry.

3.1 Combining data into targeting segments and activating campaigns

Some advertisers are under the impression that building audiences and buying media against them is rocket science. The fundamentals, however, are very simple and not different from how audiences are defined in offline media. The planner combines attributes from first party data with facts from second or third party data to define an audience, using the Boolean logic of <AND>, <OR> and <NOT>.

Here are some examples:

- In market customer who has engaged already:
<user has been to product page on advertiser's website twice in the last three weeks (first party pixel on product page)> AND NOT <user has bought the product online (first party pixel on "thank you")> AND <user is in-market for the product category (third party data from data marketplace)>
- Prospecting segment
<user is age 25-35 (third party data from data vendor A)> OR <user is age 35-45 (third party data from data vendor A)> AND <user is interested in fishing (third party data from data vendor B)>
- Second party data targeting
<user has configured a VW Golf on Car comparison site (second party data partnership)> AND <user has configured a Ford Focus (second party data partnership)> AND NOT <user has been to VW Car configurator>



More sophisticated audiences may be built using audience discovery algorithms (find data attributes that over-index for those users that have converted to identify new targeting segments), look-alike targeting (find users with similar behaviour and attributes like the users that have converted) or building audiences in real-time based on all data signals. But the principle of combining attributes to define an audience stay the same.

When the audience has been built, it can be activated in marketing tools e.g. demand side platforms (DSP), for website personalisation or custom audiences on social networks or search.

Most DSPs are connected to most data marketplaces and data management platforms, so the operator can activate the audience build in one tool in the other tools. In the background, however, complex data matching needs to happen. Each tool has its own cookie pool (or user profiles) and needs to map them to the other tools, so that user ABCD from the DMP can be recognised as user 1234 of the DSP. While those processes constantly happen in the background, some profiles cannot be matched or found again, so low data-match rates will limit the reach within the defined audience that can actually be delivered.

3.2 Key considerations for using data effectively

Single customer view

It is often the case that (internal or external) client briefs focus on needs relating to specific product or service use cases at the expense of the wider context. With separate client teams briefing these projects and managing different data sets, there is a real danger of efforts being duplicated and data being siloed. Having a solid data governance and management strategy, and a data science-led, consistent approach to data across the whole business is crucial to avoid a fragmented view of the customer. A customer/user is not just a buyer of a certain product or service. He or she is also a human being with different characteristics, behaviors and attitudes. The customer may or may not have bought other products from the same brand before. Plus, there are all those activities that take place out of sight of the brand on various channels and in different environments. It is therefore paramount, in order to develop and end to end effective data-driven strategy, to have an approach which will start from the user as a person rather than a set of disconnected or unrelated data points.

Matching data to campaign objectives

In order to decide which the most effective data sources are to reach certain campaign objectives, the type of data, reach and granularity have to be taken into account. Branding campaigns to increase the awareness or affinity for a product in a defined audience, require scalable data assets with high reach. Socio-demographic information such as age, gender and income are a classical choice for that, but more and more advertisers tend to address customised brand audience segments.

In both cases, data modelling techniques and data aggregation are important to achieve the necessary reach and to deliver campaigns to large-scale audiences.

Programmatic teams should not fall into the trap of focussing mainly on demographics for their targeting, while the broader communication planning teams have recognised that today's varied audiences are much better described by their interests and attitudes than age and gender. So behavioural profiles may be a better choice for targeting as they can be better signals for product interest, while demographic data is also impossible to observe and therefore not available at the scale and accuracy many advertisers expect.



For performance campaigns that lead to concrete actions, the granularity of the data is most important. For these objectives, effective data sources are for example first party re-targeting information from the advertiser itself or factual intent data from a specific product category by a suitable third party data provider – to be able to generate leads or increase sales. For programmatic audience buying systems it is important to cover the whole customer journey with different data sources, for all campaign goals along the so called purchase funnel.

Using audience data to enhance creativity

Technology is often used to spark creativity. Asking the right questions of the data can lead to new insights and new ideas which in turn can lead to engaging advertising experiences for the consumer. Third and second party data can be used to understand the wider interests of the audience segment(s) which in turn can be used to inform the campaign creative, as well as cluster analysis which can reveal distinct subgroups within audiences.

An Automotive Advertiser Case Study: Using Data to Enhance the Creative

A large automotive manufacturer that wanted to know who was buying their SUVs and their saloons. By matching their first party data to third party data in a DMP provider, they gained some new and surprising insights: people who bought SUVs were more likely to own a pair of skis, meaning the creative should show the car in a wintery setting. The data also showed that people who buy saloon cars were three times more likely to be Android users – not ideal when the creative had been talking about the iPhone capabilities of the car! Using these audience insights, the reworked creative lead to a 50% reduction in cost per lead.

Data can not only play an important role in the sophistication of the creative, but also link the creative with overall media strategy. For example, rather than showing a consumer the same display ad repeatedly, an advertiser can use the technology that exists to either re-target with a better offer, different creative or showcase a complementary product. Serving sequential or consequential ads to consumers' needs to become ever more prevalent to avoid the problem of ads being seen as 'stalking' consumers.

Using campaign data to optimise campaign performance

With real-time campaign performance reports, advertisers are able to regularly evaluate impressions, clicks, and actions by any designated period of time since the campaign start date, answering key questions about the optimal settings and mix across audience profiles, channels, inventory, and creative.

- CRM targeting: reach known customers and re-engage them with product offers. This is a good way to increase frequency and conversions amongst the most loyal consumer base.
- Demographic targeting: audience insights can provide the advertiser with real-time information about the age, income, lifestyle, and affinity of the people who responded best to the advertising.
- Geo targeting: advertisers are able to utilise data to evaluate campaign metrics by geographic area (for instance at postcode level), then adjust the campaign to areas that show the best campaign performance.



- Day part targeting: day part reports show a variety of performance metrics by day of week and by time of day, enabling the campaign to optimise to the most effective times to serve ads.
- Velocity targeting: velocity targeting, used for direct response campaigns, takes into account a consumer's frequency and recency of visits to the brand's website to either increase or decrease the user's exposure to advertising and adapt the messaging appropriately.
- Channels: reviewing campaign performance by device type report can show which type of ads perform best on which channel, enabling budget to be optimised across the best mix of channels.
- Publishers: campaign data reports are able to map the number of conversions against unique users for a specified time period, and this can be tracked back to create a "whitelist" of top-performing publishers.
- Creative: advertisers can evaluate the results of each creative in the campaign, including the ad size, enabling optimisation to the best performing creative, whilst balancing the available inventory at that size (and cost) to give sufficient reach.

Using a number of the targeting options described above, a jewellery retailer was able to effectively use data insights holistically to increase clicks by 487% and actions by 64%, which together drove a YOY increase in revenue against the same ad spend of 78%.

Having a holistic view of the campaign across audience profiles, channels, inventory and creative messaging, rather than viewing each in silo, is critical to using data to fully optimise the campaign and maximise the return on investment.

Insights and reporting

Data should be used to inform, learn and help make decisions. In order to do that, data needs to be organised and digestible.

- Insights: the ability to gain an accurate and deep understanding related to performance of campaign is key in making decisions. Understanding not only who committed an action (purchase, sign-up, etc..) but also how that information ties back to what is already known about the consumer and/or the audience segment. How that audience indexes against the buyers entire ecosystem and what other attributes that particular audience ranks high for.
- Closed loop reporting: this is another tactic that can be used to understand a consumer base. Utilising data to better understand the most valuable customers and "closing the loop" between marketing and sales efforts



An Advertiser Case Study: How Kellogg Reduced Wasted Ad Spend on Invalid Traffic

The costs of invalid traffic have taken their toll on the digital media industry through not only wasted ad impressions, but also through lower viewability, skewed campaign results and depressed ROI.

Many advertisers though are actively looking at ways to combat invalid traffic and Kellogg is one such example. Kellogg and its agency, have achieved invalid traffic levels far below what is considered acceptable by industry standards. However, Kellogg was convinced that greater improvement was possible. Partnering with a verification provider and a DMP, the collaboration developed an automated defence against invalid traffic. To do this, the DMP fed Kellogg's impression-level campaign data directly into its system, providing granular reporting of key validation metrics – including invalid traffic, viewability, geography and engagement – for every impression delivered. With this data the DMP was able to pinpoint users associated with invalid activity and add them to a suppression list applied to Kellogg's ad serving on a daily basis. This ensured no ads would be delivered to these invalid users from any Kellogg campaign.

After the initial setup, this process was fully automated – from the ingestion of the ad verification data to the ultimate ad serving – creating an invalid traffic-minimization technique that continuously optimises toward quality.

Using this approach, Kellogg is on track to save nearly \$2 million in wasted ad spend on US campaigns in a year.

The approach had a number of additional advantages as well:

- Full automation of campaign optimisation, where previously it would have been a highly-manual process
- Applicability across ad formats and channels including display, video and mobile
- Reduced threat of invalid traffic on cost-effective programmatic inventory

It is important to note that despite their exceptionally low invalid traffic to begin with, Kellogg was able to further reduce these numbers significantly through invalid traffic suppression at the impression level and experience quantifiable results.



4. CROSS-DEVICE OPPORTUNITIES AND CHALLENGES

The tendency for today's consumer to own not just one, but a host of connected devices has opened up a wide range of new business opportunities for advertisers, while simultaneously compounding their ability to holistically gain control of the proliferated sales funnel. As one-to-one marketing becomes an apex more advertisers strive to reach, the ability to find and target users across the multiple devices they use is more important than ever. In tandem, advertisers must also increasingly be able to directly attribute resulting business outcomes to those marketing actions. Identity management or "cross-device" aims to marry the ability to target accurately across devices with proper attribution of all the touch points along the path to conversion.

Successful cross-device measurement yields big benefits for advertisers and consumers alike. Effective cross-device measurement;

- Fuels more relevant experiences for the user, delivering the most useful message at the appropriate time, no matter which device he or she is connected to;
- Provides a holistic view of behaviour throughout the customer journey, allowing advertisers to analyse advertising spend across an entire campaign, rather than piecemeal across different screens and formats;
- Offers an essential step in eliminating silos in digital media planning;
- Enables smarter advertising and a better consumer experience.

The cookie has crumbled

The proliferation of connected devices means that single-device identifiers, such as cookies, cannot capture a full view of media touchpoints and consumer actions across devices.

Not too long ago, cookies were an indispensable part of online advertising, helping advertisers keep track of which ads had been viewed, on which site, in which behavioural segment the user was part of and so on.

However, with non-cookie supported devices increasingly playing an integral role in the lives of consumers, the dependency on cookies in regards to gaining useful insights is steadily losing strength. The rise of non-cookie supported devices has rendered traditional targeting and retargeting relatively tame, with one person owning a smartphone, tablet, laptop, desktop, and smart TV being counted by advertisers as 5 different users. This fragmentation of users has meant that the industry has needed to adapt and rethink its targeting options, in order to enable advertisers to once again effectively connect with their users.



One answer to the problem is the ID Graph. An ID Graph is a series of interconnected identities, where all IDs belong to a single consumer. In other words, the ID graph is a united group of any number of separate (device/cookie) IDs that are tied together into a single actionable customer profile. While not eliminating cookies totally (as they still work on desktop), cross-device audience management works as an effective tool to retarget and reach users across all of their connected devices. This new feature helps determine which devices belong to the same user, enabling advertisers to connect with these users irrespective of which of their devices they are using.

Deterministic data vs. probabilistic algorithms

Advertisers can utilise deterministic data and probabilistic algorithms in order to accurately identify which screens belong to users. This process must comply with EU privacy legislation as outlined in section 2.1.

Deterministic refers to data that can be determined (i.e. verified) as true. For example, a user logging in to a web shop will usually need to sign up using identifiable information. Thus, every time the user logs into this webshop, the publisher (website) will be able to use this deterministic data recognise this user with an extremely high degree of certainty.

For example:

User A owns a laptop, a tablet and a smartphone. On each of these he is logged on to a certain website across his devices. His logins thereby create a cross device connection (through anonymous hashed login IDs), due to the fact that he is logged onto the same profile from different devices. This data is one-way encrypted and fed into our DMP, from where it can be accessed via our DSP as one and the same user.

The **probabilistic** method of establishing a user ID across multiple devices is a little more complex than deterministic methods, as it relies on algorithms to analyse thousands of different pseudonymous data points to create statistical, i.e. probable, matches between these devices.

For example:

User B owns a laptop and a smartphone. The user works from home in the morning, goes to work, and stops off on the way home to finish off some work in his favorite coffee shop. He does this five times a week. A matching identifier here is his laptop and mobile log on to use the same IPs, browsing the same content. This, and thousands of other data points are compared to finally come up with a link that shows that these devices are owned by the same user.

The deterministic and probabilistic data is fed into a Data Management Platform (DMP), where consumers and the link between their devices are converted into actionable consumer insights. These users are then accessible via a DSP to advertisers, who can re-target consumers across their devices with relevant advertising.

Advertisers should talk about the opportunities and challenges of cross-device with their technology partners to understand whether and how their approaches tackle each of them, ideally selecting for partners that have not only thought deeply about these issues, but have designed and implemented solutions that can demonstrably deliver the cure to the challenges inherent in this realm.

Effective attribution

It is important to understand how activity on one device can drive conversions on another. Without cross-device methods only devices can be tracked, not consumers. This leads to misleading statistics and damaged campaign performance. Cross-device helps advertisers to gain control of the attribution process and provides a 360-degree view of the consumer journey and all associated touch points.



Measurement in a multi-device world

When it comes to finding users along the purchase path and taking stock of what they're doing at key touchpoints, the capabilities offered by existing solutions vary dramatically. A good system of cross-device measurement needs to be accurate, scalable, actionable and respectful of user privacy, and ideally should operate across a variety of properties.

- **Accurate:** in order to identify consumers across screens, accuracy is critical. If a solution has no or few logged in users it's going to be less accurate.
- **Scalable:** not only does a solution need to know some people, it needs to know a lot of people. Fundamentally, cross-device measurement is an attribution challenge – but an attribution model only truly succeeds when it can be applied at scale. This kind of scale is achievable through programmatic, thanks to the huge reach it can provide.
- **Actionable:** in order to be actionable, cross-device solutions must be able to track consumer interactions across the whole digital ecosystem. The wider the reach, the more reliable an image of reality it will produce. With these sharper insights to hand, it then becomes possible to apply them across channels and formats.
- **Compliance:** cross-device solutions should be compliant with EU privacy and data protection laws (as outlined in section 2.1) and ensure transparency and control at all times.
- **Across a variety of properties:** users are often logged in on a number different platforms at once. This makes it possible to layer user intent on top of other data, offering a more complete picture than solutions reliant on a single property alone.
- **Be aware that a single device doesn't mean a single user** in some instances, for example, where a desktop PC is used a family device.



5. CONCLUSIONS

A global advertiser in 50 markets with 20 different brands and units will face different regulations across markets and unexpected challenges like “UK leaving the EU”. Therefore establishing an effective programmatic data strategy takes time, resource and the right technology partners.

“Every day, we create 2.5 quintillion bytes of data — so much that 90% of the data in the world today has been created in the last two years alone “⁶ “Data is the new oil”, and the Internet of things will connect your fridge and your cat’s bowl.

For an advertiser, it makes sense to replace the word ‘data’ with the word ‘consumer’. Essentially, data becomes valuable for marketing if it helps to understand consumer and their needs, helps to reach them with more relevant messages, and helps to track and optimise those engagements.

As more and more of the purchase journey moves into digital and trackable channels, more data about the consumer can be collected and the smart advertiser can use it to improve the consumer experience and the marketing return on investment.

Advertisers may be questioning where to start and a good process may be:

Step 1 - conduct a data audit

Evaluate which percentage of the target audience visits the advertiser’s digital assets, i.e. websites, apps, online shops, how intensive their engagement is and whether very different behaviours can be seen that could be the basis for first party data segmentation.

It is important to understand the scale and depth of the first party data available, e.g. a data-rich advertiser or a data-poor advertiser.

Once this is understood the next stage is to look at the third party data available in the market: how deep and broad is it and is it available at scale? Consider looking beyond the audience data marketplaces: can a second party data partnership be established i.e. with retail partners, media owners or other brands?

The output of this data audit should provide a good understanding of the available data that could be used for segmentation and targeting. The advertising mechanics of the brand should also be considered: does the advertiser sell to nearly everyone, relying on reach and mental availability to drive the brand’s growth, or would better targeting of well-defined segments have a higher impact?

⁶ <https://www-01.ibm.com/software/data/bigdata/what-is-big-data.html>



Step 2 - start small, learn fast

Many advertisers currently get very excited about the data opportunity and want to move from mass-marketing into one-to-one personalised communication as fast as possible, collecting all data they can get their hands on and often invest a lot of money into a data management platform (DMP).

While ultimately most brands will have a DMP to make all their customer and prospect data available for insights and targeting, a lot of data usage can be leveraged without high upfront investments. For example, most DSPs have data management functionalities built-in and are connected to most third party data providers. Segments can be built, combining first and third party data, and should be activated immediately. Running tests on different data sources and segments will show how the targeting data uplifts campaign performance and can be the foundation of the business plan to invest more in data infrastructure and strategy.

Step 3 - move to a consumer-centric marketing organisation

Ultimately, consumer data and all the technology around it will only create value if it helps to reach the right consumer with the right message across all touchpoints along the consumer journey. That should lead to a better consumer experience and higher marketing ROI.

Data, however, is only one ingredient for success. Breaking up silos, changing the mindset from a product focus to a consumer focus, moving from a campaign organisation to an always-on communication when and where the consumer wants it and moving into much more analytical and data driven decision making are core components that need to be considered.

This is a journey to the marketing organisation of the future and data is only an enabler. Move in small steps, test, learn, fail, try again and transform your business as your data confidence grows.



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ABOUT IAB Europe

IAB Europe is the voice of digital business and the leading European-level industry association for the interactive advertising ecosystem. Its mission is to promote the development of this innovative sector by shaping the regulatory environment, investing in research and education, and developing and facilitating the uptake of business standards.

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