dooh buyers guide

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contents

iab digital out of home working group

The IAB thanks the following organisations for their support in this guide.

introduction

Welcome to the very first instalment of the IAB Australia's 'DOOH Buyer's Guide'.

While the OOH industry contracted significantly in 2020 as a result of COVID-19, it is expected that the rebound of the sector will be just as steep. Given DOOH comprises an increasingly significant portion of total OOH revenues, it's imperative that the industry has a reliable and comprehensive resource it can turn to for further information.

The purpose of the DOOH Buyers Guide is to provide those either already buying DOOH or considering adding it to their next campaign with a clear, comprehensive and credible resource, which addresses the intricacies of the medium, cuts through any jargon and shines a light on industry best practices.

As the industry continues to grow and progress, IAB Australia's DOOH Working Group will ensure that the Buyer's Guide is updated with the most recent and relevant information.

As the DOOH industry develops, there has been a need for industry education that can help both traditional OOH buyers and digital buyers have a common language as well understanding for planning, trading, measuring and working with partners in the DOOH arena. This Buyer's Guide is a great starting point for the industry.

Experts from twenty different organisations operating in the DOOH space have collaborated to provide media agencies (large or small) with an industry resource that should enable smarter, faster, more efficient and effective DOOH and programmatic DOOH trading.

I would like to acknowledge the fabulous resources that both IAB New Zealand and IAB Europe have previously developed on DOOH . In true IAB tradition we have stolen with pride some of their resources where there are market similarities.

A big congratulations to the IAB Australia DOOH Working Group for creating this valuable resource.

Ben Allman
Sales Director APAC
Broadsign
+ IAB DOOH Working Group Chair

Gai Le Roy
CEO
IAB Australia

buying methods

Within the OOH channel, the age-old debate of programmatic versus direct is currently taking place. The status of this channel is however different to that of other traditional channel developments. In television or audio, programmatic delivery is typically across a separate property and consumer experiences i.e., linear vs. BVOD environments or radio vs. streaming.

Within OOH, the real estate that the buying method is applied to is the exact same for DOOH, with two buying methods able to access the same inventory albeit with different approaches. With OOH real estate being consistent across all buy types, apart from static which isn't accessible programmatically, the decision on how to buy comes down to the individual needs of the brand and the value derived from programmatic vs. direct means for their marketing strategy.

Within this new way of working, it should not be a "should I buy direct, or should I buy programmatically?" conversation. These two methods, across the same real estate, can operate in perfect harmony based on the strategies needed for a brand's marketing.

direct vs programmatic

Transaction Method	Insertion Order		Real-Time Bidding (Open Exchange, Private Marketplace or Programmatic Guaranteed)
Cost Model	Cost per panel, per tenancy period "Screen Rate"	Cost per spot, per panel, per tenancy period "Screen Rate"	CPM on modelled impressions / reach (industry or independent data source) (Fixed or First Price auction rules, Open Exchange)
Billing Event	Ad placement for full tenancy period (solus or other)	Ad placement for 1 spot per loop for tenancy period. (Loop example - Bus Shelter could be 1 in 6 ads on rotation)	Audience index spot play (delivered either based on modelled data or real-time audience data) (Impression multiplier applied to spot play i.e. an impression)

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when to buy programmatically

Brands can achieve a large share of voice and impact by occupying a particular site for a consistent and extended period. This drives reach within the planned audience profile for the campaign, but also positive wastage across other demographics or audience profiles in turn growing the brand within those demographics long term.

With programmatic DOOH delivery for their planned audience, in addition to the above method, brands can penetrate deeper into the audience segment using data and targeting methods, which in turn drives higher depth of awareness, recall and intent for short-term sales and long-term brand uplift.

As marketers and agencies go through the process of determining if programmatic DOOH activation is the right solution for their marketing, it is important that they ask themselves the questions listed to the right. If the answer to any of these is YES, then programmatic DOOH is a solution that should be considered.

Is flexibility required for your campaign?
Do you need to update creatives on-the fly?
Do you need to make mid-flight adjustments to campaign targeting/screen selection?
Is the ability to upweight, down-weight, stop and start the campaign in real-time important?
Is the ability to easily re-allocate budgets with other programmatic channels of value for this campaign?

Could the campaign benefit from day-parting or time-targeting?
Are there particular offer windows?
Are there any insights around what time-of-day there are higher (or lower) concentrations of the target audience?
Are there any strategic reasons to target or exclude particular day-parts to improve targeting or minimise wastage?

Is there a limited or flexible campaign budget?
Programmatic execution helps mitigate the minimum spend restrictions of direct outdoor buys.
The ability to cherry-pick screens, days and hours offers strong potential to optimise smaller budgets.
Some advertisers use programmatic to 'top up' their traditional buys in real-time to achieve additional reach & frequency.

Is there any dynamic data available to help optimise your campaign?
For example:
mobile data (for targeting)
footfall data (for measurement)
weather data (for creative optimisation)
other custom data

In the future, in addition to the above data points, although not used widely yet, Dynamic Creative Optimisation will be an increasingly available available activation method.

benefits and strengths of direct vs. programmatic

DIRECT	PROGRAMMATIC
Powerful Broad Reach Offers broad reach but can also be tailored to have local and contextual relevance. Can drive full funnel impact for awareness through to sales.	**Deeper Targeting** Brings online based targeting methods to DOOH delivery as well as enabling connection of online consumer experiences with real world experiences. Visuals can also be adapted to context and audience.
High Impact Media Highly visual media type. Enables life size and larger than life experiences.	**Greater Impact** Allows reach, content and interactivity with full motion video, real-time content, social media engagement, syncing and touch screen interactivity and AR. Location and multi-platform options.
Effective Media to Reach Mobile Audiences Reaches people as they move around, influencing decisions on their journeys between work, home and entertainment activities, enabling path to purchase.	**Fully Integrated Omnichannel Activation** Uses exposure data to retarget consumers on mobile across different formats such as audio, display and native, creating a strong consumer experience.
Lower creative flexibility and agility Traditional OOH and DOOH buys have potentially longer wait times for creatives to be removed from market depending on the urgency or type of buy.	**Flexibility / Real Time Creative** The agility of programmatic is delivered to DOOH creative activation by enabling real-time changes, price points, and data led creative decisioning such as weather targeting.
Cost Effective Media OOH can be low cost per impression.	**Digital Efficiencies** Lower production and set up costs. Lower cost barrier to entry.

difference between pDOOH and other digital programmatic

	Programmatic DOOH	Other Programmatic
Rotation	Share of voice depends on the number of spots in a loop, which can vary significantly due to different dwell times and road safety regulations.	A set number of advertisement slots on web page or in video player.
Bidding & Impressions	Due to the one-to-many nature of the medium, one spot play can result in a variable number of impressions.	A won auction can only ever result in a maximum of one impression.
Measurement	User IDs are not present in the bid request that measurement partners use for proof of play, attribution and retargeting methods.	Cookies and user/device IDs allow for accurate measurement of uniques, frequency, viewability, impression volumes, clicks and attribution.
Targeting	Existing technology is mostly based on inferred models.	Cookie and device IDs allow for more accurate targeting and retargeting using declared demographic data.
Frequency Capping	Only available at the ad play level, per screen or per network.	Available at a user/device level.

programmatic supply chain

The programmatic DOOH supply chain is very similar to standard programmatic supply chains. There are, however, elements of the DOOH ecosystem that do not exist within other channels such as Content Management Systems rather than ad servers and differing measurement protocols.

The biggest difference within the programmatic DOOH supply chain is the use of data and where that data comes from. As this is a physical world medium, rather than an online world medium, the data applied throughout this supply chain can be mobile device ID. This data is used for planning and targeting purposes and is aligned to online behaviour, demographic or historical point of interest information, i.e., targeting consumers based on where they have been previously. Location data is also a key input.

A real-time DOOH auction is usually comprised of the following six parameters:

1. A screen and publisher identifier
2. Any private marketplace deal IDs that are invited to bid
3. Accepted creative formats and their duration
4. A floor price
5. An audience multiplier, if available
6. Audience identifiers such as demographic, online behavioural or point of interest information (which may be estimated or provided via real-time technology)
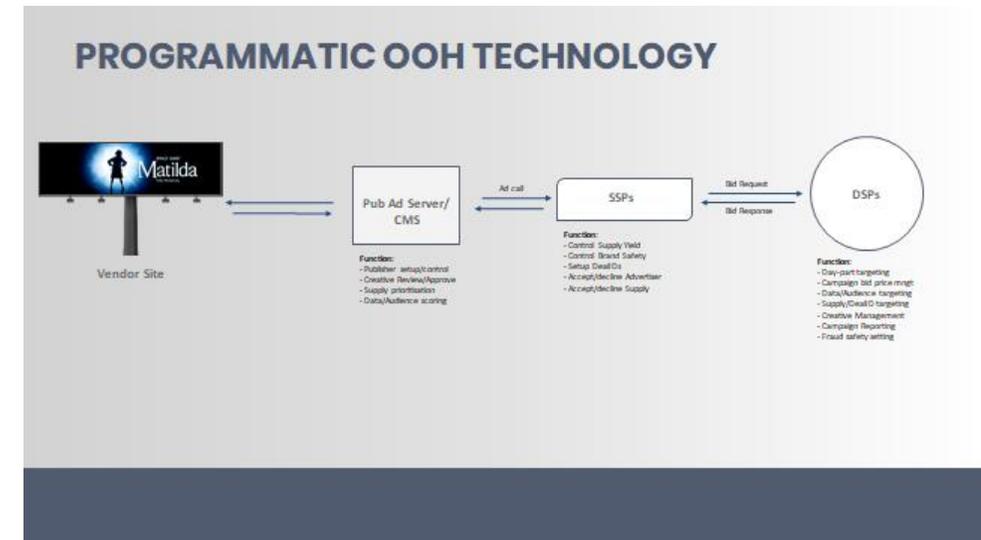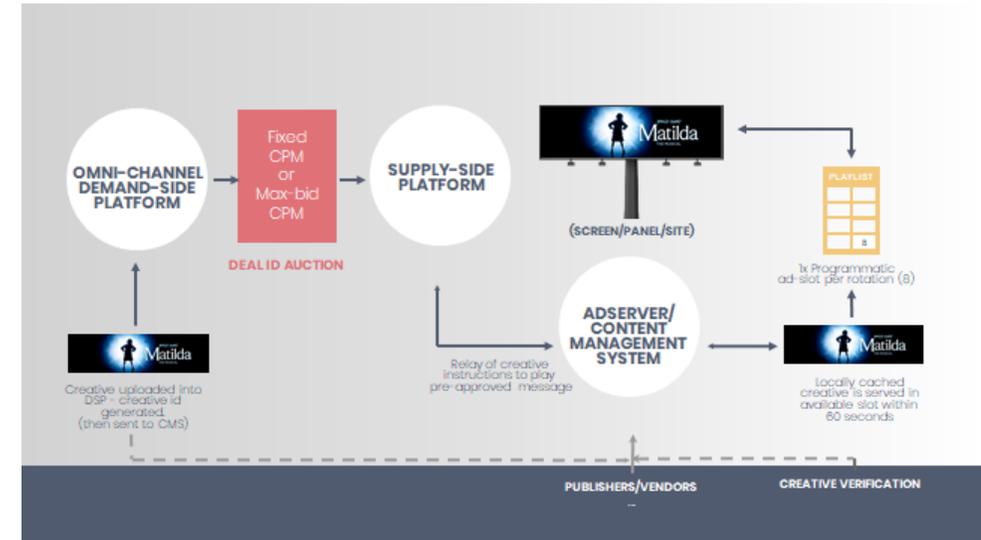
types of trade

Within Programmatic DOOH, there are currently two predominant trading methods (PMPs and open exchange) and lighter usage of programmatic guaranteed:
1.   PMPs
2.   Open Exchange
Currently in Australia, where market share is dominated by few media owners, control of availability and transparency leans to PMPs. In the US and other markets, Open Exchange is increasing with 40% of transactions due to allowing real-time forecast, planning and buying of supply by all programmatic buyers.
3.   Programmatic Guaranteed

Deal Type	Inventory Agreement	Pricing	Participation	Other Terms used in Market	Benefits to Buyers	Benefits to Sellers
Private Marketplace (primary buy type currently)	Unreserved	First Price Auction (highest bid over floor rate wins, buyer pays CPM rate bid)	One Seller to Few Buyers	Invitation Only Auction, Private Access, Closed Auction, Private Auction	Less competition than the Open Exchange to secure target inventory, meaning less opportunity to increase. Gives buyers the opportunity to bid or pass on available impressions	Opportunity to offer more exclusive inventory to highest value buyer relationships. Submits ad slot opportunity to multiple bidders
Open Exchange (limited to select SSPs & DSPs)	Unreserved	First Price Auction (highest bid over floor rate wins, buyer pays CPM rate bid)	One Seller to Many Buyers	Open market, Open marketplace	Opportunity to secure exclusive inventory at a lower price should publishers make it available to a public auction Gives buyers the opportunity to bid or pass on available impressions	Increases volume of bidders from specific inventory
Programmatic Guaranteed (limited to select DSP/SSP integrations)	Reserved	Fixed CPM	One seller to one buyer	Automated Guaranteed Programmatic Premium Programmatic Direct Programmatic Reserve	Securing target inventory when supply is limited, and impressions need to be delivered.	Secures revenue or impression commitment as buyers are required to purchase all inventory presented to them when conditions are met.

dooh buying opportunities

Over recent years there has been a huge investment by the industry in digitisation of screens. This table outlines DOOH inventory currently available in Australia via IO and programmatic buying methods.

media owner	large format		street furniture		airports		rail		transit	
	traditional	programmatic	traditional	programmatic	traditional	programmatic	traditional	programmatic	traditional	programmatic
JCDecaux	✓	✓	✓	✓	✓	✓	✓		✓	
QMS	✓	✓	✓	✓	✓	✓				
oOh!media	✓	✓	✓	✓	✓		✓	✓		
Torch Media									✓	
Civic Outdoor	✓	✓								
Big Outdoor	✓	✓								
Goa	✓	✓								
Jolt			✓	✓						

media owner	RETAIL		LIFESTYLE					
	retail		convenience		gyms/sports		media	
	traditional	Programmatic	traditional	programmatic	traditional	programmatic	traditional	programmatic
QMS			✓	✓				
Motio			✓	✓	✓	✓	✓	✓
oOh!media	✓	✓						
Shopper	✓	✓						
Val Morgan Outdoor	✓	✓	✓	✓	✓	✓		
Scentre Group	✓	✓ (orange)						
Tonic Media	✓	✓	✓	✓			✓	✓
Cartology	✓							

creative asset considerations

Creative assets for DOOH are becoming increasingly more elaborate, smart and pointy. Short animations (up to 10 seconds) with exciting content are often enough to place your advertising messages.

DOOH contributes digital-like possibilities such as hyper-targeting, contextualisation, retargeting and interactive creative assets. It can also continue in a cookie-less world and removes some other digital challenges. For example, there are no ad blockers and viewers can't skip the ads. It also provides strong brand safety because brands and agencies have control on site selection.

Furthermore, DOOH enables creative optimisation and contextualisation in the OOH environment. Brands, agencies and DPSs need to evaluate whether the screens that they wish to target, and by extension the media owners, are technically capable of running Dynamic Creative Optimisation.

Some screens also allow data integration (e.g., sport scores and breaking news) and social integration in the form of hashtag aggregation and social media content which can be placed in the network, all while being tailored to the various pedestrians.
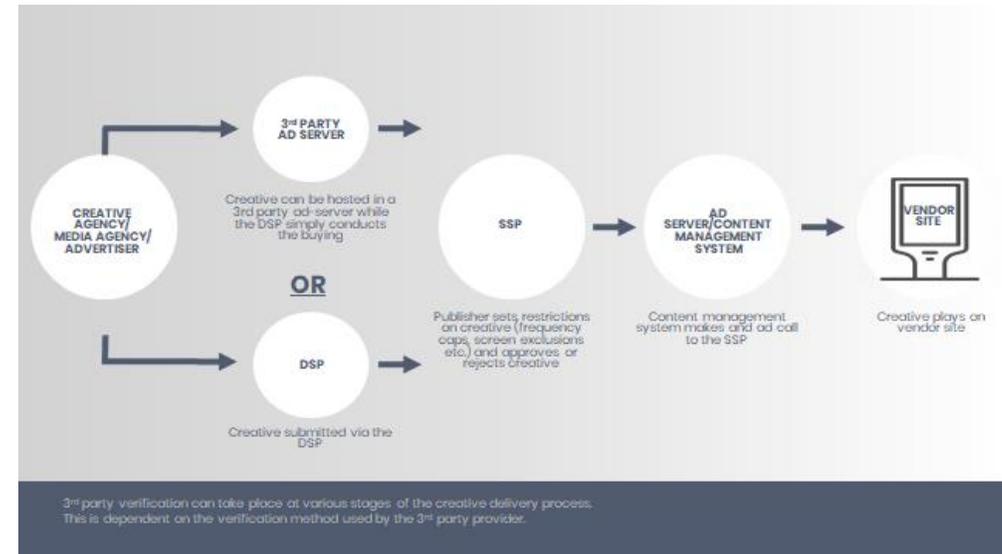
creative asset considerations

It is important to keep in mind that sizes vary widely in DOOH as there hasn't been a standardisation of screen sizes yet. Current digital screens come in all shapes and sizes, which can inflate creative design costs.

Advertisers and agencies should always check with the media owner on the suitability of certain types of creatives. DSPs usually list such restrictions in their user interfaces for quicker planning.

At this stage, all DOOH creatives must be manually checked and approved by the screen owners, so always allow for a few days of approval time (some media owners require multiple approvals before the creative can go live). In many cases, however, creative approvals can be actioned same-day.

Creativity tips at a glance:

Provide rather than ask	As with content marketing, sometimes the best approach with DOOH is to provide information to people rather than ask something of them. Consider providing weather data, transport, news, events, headlines, and conversations within your creative.
Explore third party data sources	Third party data can be used to help brands target specific audiences based on their known location at given times. Third-party data can also be used for content aware creative. Data to consider includes financial market data, flight arrival times and air pollution data, all of which are usually available via APIs.
Investigate data sources within the company	A digital brand may have analytics data that shows user behaviour by location and time of day, which could be used in DOOH campaign settings. A physical retail brand, on the other hand, may have store analytics systems in place that can provide data for optimising footfall.
Have a cross channel mindset	By using a DSP with capability to buy on several channels, you can enrich DOOH line items with mobile retargeting, or use your online campaign's behaviour for storytelling.
Engage creative partners from the beginning	Proactively making creative partners aware of the targeting capabilities available in pDOOH may inspire them to think about creative copy in a different way and spin off new ideas.

day parting and flighting

From a **programmatic** perspective, the advertiser can specify the following in the DSP:

- Day part(s)
- Day of week
- Week part
- Flight date(s)

This allows buyers to be more flexible with which creative they show when, how they allocated budget and how long the campaign will run.

Considerations:
- Creative Personalisation or Flighting
- Budget Flighting or Weighting
- Impression Multiplier support and bid impact
- Time Zones and IP Address

	Description	Example
Daypart	Targeting specific hours of the day that you want your ad to play	A restaurant wants to run a lunch time special. They can run a piece of creative during lunch time hours.
Day of week	Targeting the day of each week that you want your ad to play.	A restaurant has food specials on Fridays. They can run a campaign Wednesday-Friday. Or, if they have different specials each day, they can run one creative for Wednesday, one for Thursday and one for Friday.

targeting

Targeting is a key advantage of programmatic buying for DOOH inventory. It enables combinations of various interfaces and retargeting, which further reduces wastage. Regarding targeting, creativity knows no limits, the display can be based on dynamic sources such as weather, time of day, pollen counts, sports results, current stock data, current prices/sales offers or current traffic.

Key targeting options include:
- Location of the screen - set by latitude/longitude of the location of a point of interest (passed through the bid request).
- Point of interest - Set a radius around a certain point of interest e.g., a 1km radius of all McDonald's stores.
- Audience Concentration - using 1P, 2P, 3P data for scoring screens based on the highest probability of reaching your desired audience with the inventory and times available.
- External Data Sources - buying based on variables such as sports scores, traffic, weather.

Building of custom targeting logics:
With the right set up on the demand side, advertisers could create custom targeting logics that take their first-party data and contextual data into consideration in one algorithm.

It's well known that proximity of DOOH to stores positively affects footfall and conversions, so brands can leverage the real-time buying capabilities of programmatic to execute decisioning on the fly. Soon we will see advertisers going beyond weather or road traffic targeting as we gather more information on parameters which cause uplift in brand perception or performance KPIs and tracking and targeting on those variables in real time.

DOOH and mobile / Omnichannel approach
Various campaigns already use the synergies between smartphone and DOOH that go far beyond the QR code. Beacons are small mini transmitters that register smartphones using Bluetooth Low Energy (BLE) and trigger targeted action in an app. Elements such as discounts when entering a store, gamification or a connection with augmented reality are possible.

The connection of DOOH and mobile enables campaigns in which the user can be actively involved. Xaxis found that consumers exposed to DOOH in an omnichannel campaign were more likely to engage with the brand on mobile and according to Nielsen, OOH is the most effective in driving online engagements like search and social.*

Media placement will be influenced by data from our smartphones, smartwatches and other wearables, input that can be used to create advertisements with high impact on passers-by.

verification

Historically, OOH proof of campaign delivery has not been reported independently of the media owners - and this is still predominantly the case in many markets.

However, as digital out of home markets mature and go through the process of digitisation, advertisers now also have the choice to engage solution providers who can activate third-party reporting that verifies what was booked versus what was delivered. Third-party measurement & verification helps build a more trusted marketplace, and a maturing of the OOH sector, enabling it to compete better in the digitised media industry.

Australia is one of the world's most progressive markets when it comes to third-party verification of DOOH, with both the buy and sell-sides having been engaged in finding solutions for the sector over the last few years. This remains an ongoing industry area of development and innovation, both locally and in other markets. Programmatic verification is still nascent as this is discussed in more detail on page 19.

For Digital OOH specifically, where booking parameters are so many and varied (with almost infinite future possibilities) verification must consider multiple metrics including number and location of screens, advertisement length, share of time and total exposure for each creative that played.

What is being verified?

Most digital buyers would be very familiar with the metrics for verification in the digital display ecosystem, where ads or content are served, and data relating to audience, context, viewability, potential fraud etc are instantly and simultaneously available.

Digital screen networks in a public space environment are very different, using highly developed, secure technology stacks, comprising a range of software and hardware solutions designed specifically to reliably deliver scheduled (or dynamic) messages to real world screens, up to a few hundred times a day.

All audience metrics for OOH are estimates. So, rather than a focus on viewability and (real) audience exposure (impressions) - as verification does in Digital Display, verification for OOH is focused on providing a connected, factual foundation, upon which other data, such as audience estimates can build.

These facts are broadly:

- What message was on what screen or sign, when and for how long?
- How does that compare with what was contracted?

verification

This means verifying some or all of the following relevant metrics:

Common Booking Parameters

- Number of Panels
- Location of Panels
- Number of plays by location / panel / creative / time of day *(to avoid confusion, a playout event should not be referred to as an 'impression')*
- Ad duration and / or rotation
- Share of Time or Loop
- Creative delivery / rotations (time of day, day of week etc.)
- Markets / suburbs / environments

What Can be Tracked & Verified in OOH?

- Panels - by location, type, format, count
- Locations - by geography, market, address, latitude/longitude
- Display condition
- Plays - by location, format, creative
- Ad length
- Exposure Time
- Share of Time
- Creative / message
- Market
- Dayparts (precise time, to the millisecond)
- Screen outage impact
- 3rd party ad server / media player media content delivery failure (e.g., when deploying Dynamic content or pDOOH)
- Logged power outage / failure (to screen hardware / to player) impact on ad delivery
- Playout delivered within / outside of location operating hours / loop policy
- Jurisdictional compliance (e.g., state specific creative, or proximity to schools etc.)
- Even distribution of message across schedule
- Loop exclusivity reporting
- Time of posting / takedown of Classic posters

verification

Methodologies

DOOH ad serving is distinct from ad serving in other digital media, because it cannot be achieved separately from the adserver / CMS used by the publishers to deliver approved content to their screen networks.

A critical system in every DOOH CMS is the Media Player. Most DOOH publishers in Australia license this specialist software from third-party providers, whose solutions are used globally by DOOH publishers.

Verification of DOOH, therefore, requires specific solutions and there are currently multiple suppliers in Australia, each employing **one or a combination** of the following methodologies, which can be implemented at various stages of the campaign delivery process:

- **System Event Verification**: direct integration with playout data enabling 3rd party verification of real-time Media Player system activity. Best practice controls can be applied to assure the complete and accurate reporting of data.
- **Physical Inspections**: physical verification of DOOH (& Classic OOH) networks, data collected independent of media player log files. As a 'moment in time' methodology, it can be used as an additional control, alongside one or both of the other methodologies.
- **Creative tags**: verification of DOOH networks, activated by adding unique code to digital creatives during adserving, data collection is real-time and collected independent of media player log files.

Examples of Verification Reports

verification

Examples of Verification Reports
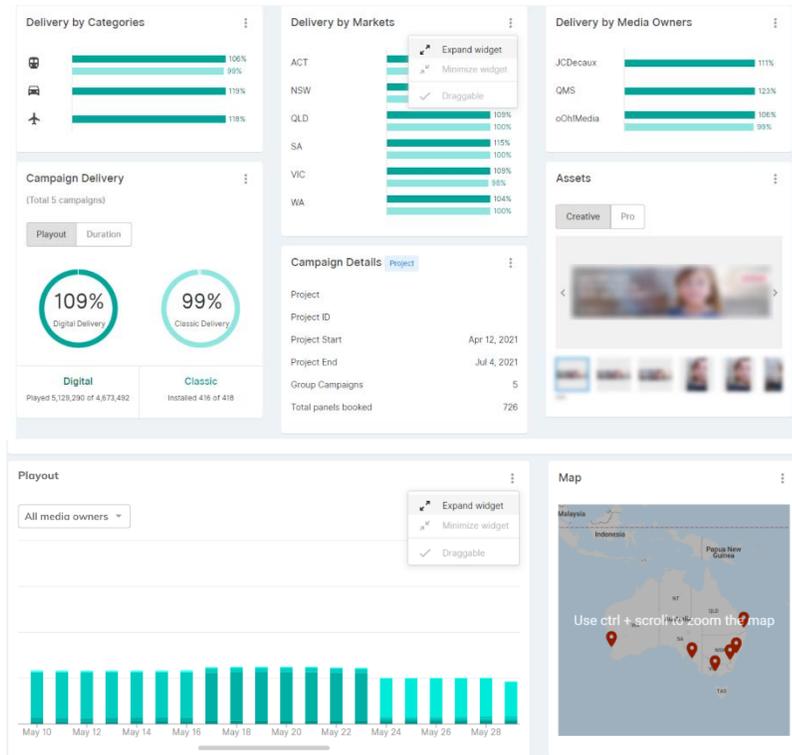
Verification for Programmatic Buys

Independent verification of delivery (plays) for a campaign transacted and implemented programmatically is a critical piece of the journey to maturity for DOOH. Whatever the booking parameters (time, location, audience, weather, pollen count, traffic speed, dwell time)and irrespective of whether the campaign is guaranteed or non-guaranteed, a buyer should be confident that they can measure exactly:

- Where and when their ad is played.
- Where it is not played, where it should have been.
- Where the wrong ad may have played.

With pDOOH increasingly being transacted (sold, bought and reported) using impression metrics, verification of whether the ads were delivered successfully is critical to the performance of the campaign. Estimated impressions at a collective site level, means nothing if the ad wasn't correctly displayed at the location/time that the audience was measured. Also, as many clients will use both direct (IO) and programmatic methods in tandem for the foreseeable future, it's important that they can receive standardised data for every play of their entire campaign delivery.

Standardisation of verification in pDOOH is challenging at this early stage due to the number of different approaches being used to buy, sell and deliver / serve programmatic campaigns by many competing SSPs, DSPs and publishers. Due to these complexities, an independent verification solution is yet to be delivered at scale in any market for pDOOH.

The local industry, through bodies like the OMA, MFA and IAB, is working on standardisation of metrics and approaches to verification. This guide will be updated to reflect any market changes as they occur.

audience and measurement

The digital norm we're used to

1	Know a user can see an ad when displayed on any screen or device.
2	Having accurate demographic and audience behavioural signals for exposed users.
3	Omnichannel measurement across devices for attribution and frequency.

The DOOH difference

- Challenges with DOOH exposure at the same level of granularity
- There is a reliance on new and different datasets to match against these audiences.
- OOH measurement today isn't suitable for many digital use cases.

A range of audience and data sets are used within the Australian market including:

MOVE
The traditional audience measurement currency and planning tool for the OOH industry in Australia run by the Outdoor Media Association (OMA). In 2020 the OMA appointed research firm IPSOS to evolve MOVE and enhance its capabilities, particularly in relation to digital OOH measurement. This upgrade, known as MOVE 2.0, is anticipated to launch in 2023. Some interim upgrades (MOVE 1.5) will be made in late 2021.

Camera technology installed in screens
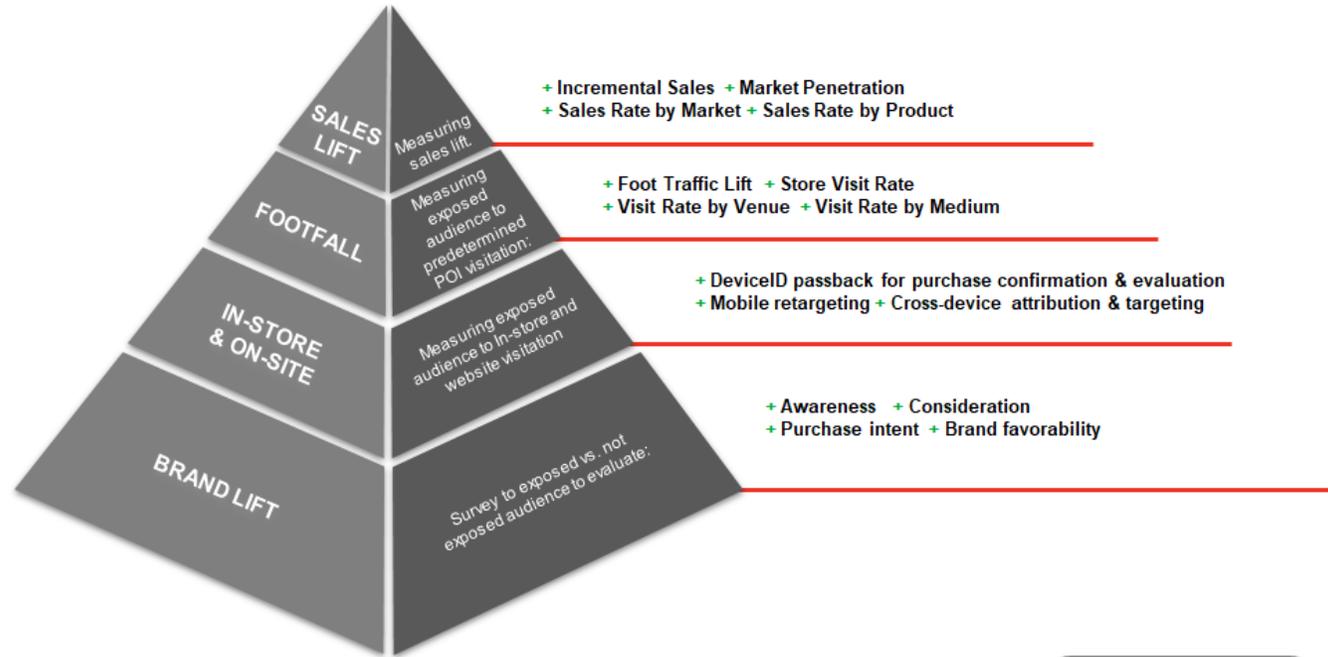Camera based audience measurement systems to provide a high level of data granularity and recency due to the live, always on capture of the audience in view of the screen inventory.

Mobile location data sources from mobile devices
Mobile location via smartphone devices is a common source of audience data for outdoor media. Three data source types include; mobile GPS, beacon tech and telco network cell towers.

audience and measurement

Measurement options:

SALES LIFT — Measuring sales lift:
+ Incremental Sales + Market Penetration
+ Sales Rate by Market + Sales Rate by Product

FOOTFALL — Measuring exposed audience to predetermined POI visitation:
+ Foot Traffic Lift + Store Visit Rate
+ Visit Rate by Venue + Visit Rate by Medium

IN-STORE & ON-SITE — Measuring exposed audience to In-store and website visitation:
+ DeviceID passback for purchase confirmation & evaluation
+ Mobile retargeting + Cross-device attribution & targeting

BRAND LIFT — Survey to exposed vs. not exposed audience to evaluate:
+ Awareness + Consideration
+ Purchase intent + Brand favorability

Third Party Measurement
3rd party measurement providers enable buyers to apply consistent methodologies across digital screens and devices.

Ad Exposure Log → Omnichannel DSP → Retarget recently exposed devices / audience insight & segments / Measurement linked across channels

MAID — Timestamp — Board ID

Omnichannel DSP:
- 3rd Party Partner Match
- DeviceIDs
- Location Data
- Measurement Reports
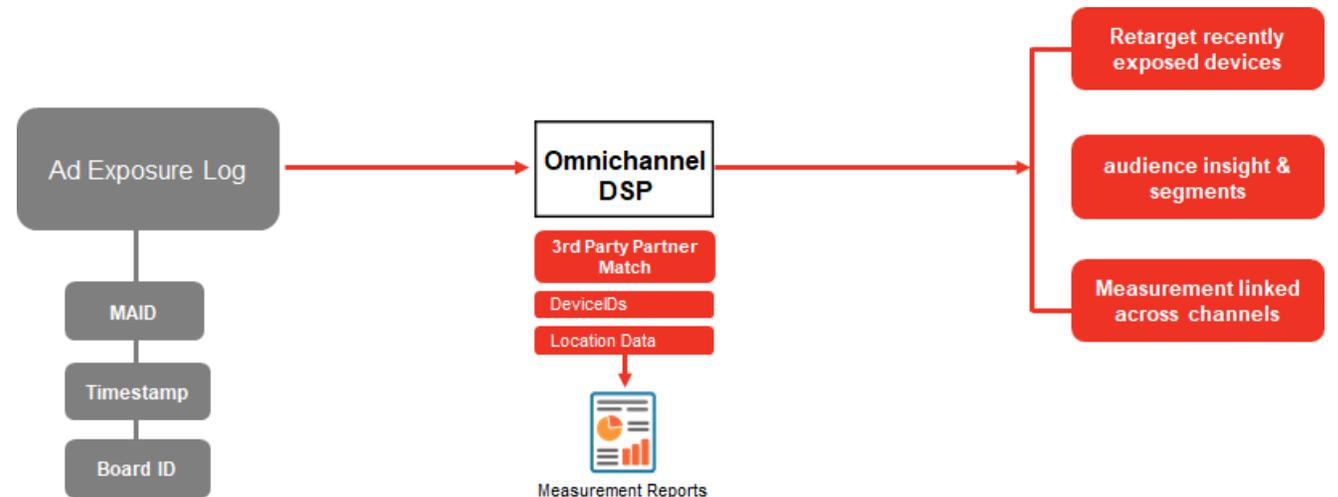
impression multiplier

What is the impression multiplier?
The impression multiplier is the calculation used to estimate the number of people likely to have seen a single ad play.

Why is it necessary?

Without the impression multiplier there is no measure of the number of people seeing an ad play/impression. This metric is important for a one-to-many channel and serves as a measurement and transaction currency for programmatic DOOH campaigns.

How is it calculated today?

To get an accurate impression multiplier, accurate data must be collected on the viewing audience. The media owner usually provides the audience impressions, dwell time and slot duration while the SSP is typically responsible for providing the framework/methodology used to calculate the impression multiplier.

Please note that SSPs generally allow for media owners to apply their own framework/methodology in calculating their impression multiplier, provided the SSP deems the framework/ methodology to be credible and robust.

There are multiple ways to calculate the metric:

1. Use an on-screen measurement tool to count the people within the view-shed of the screen and to either provide that data into the auction in real-time or to calculate historical averages on the most granular timescale as is reasonable.
2. A more common method is to take aggregate audience metrics measured over a longer timescale and then make a mathematical approximation of the audience for any given ad play based on the various factors that determine how many people are likely to see an ad. These include but are not limited to:

   - Total audience for a given time period
   - Ad or slot length
   - Dwell time
   - Time period measured
   - Variance of the audience through time

impression multiplier

Questions to Ask Your Partners
(ask questions *of the SSPs and the media owners):*

1. Find out how the multipliers are calculated, what data goes into them and how they ensure as consistent a measure as possible.

2. Recognise that impression multipliers will be based on different data-types for different venue-types.

3. Push media owners to adopt the latest best-in-class measurement methods and technologies but recognise that some are prohibitively expensive to deploy, and some venues can't accept them (i.e., Doctors' offices and urinal ads will never accept camera-based measurement and that's probably a good thing).

4. Push for as close to consistent methodologies as possible while allowing for advancements in source-data and calculation types.

5. Put some valuation on the data source. Live-streamed data from the screen is likely more precise and thus worth more than impression multipliers calculated from linear approximations based on annual counts. How much more is a question for debate and likely best settled by the market supported by robust effectiveness research.

supporting industry development

Identifying ways to support sector development
In late 2019 IAB and PwC partnered on a new study to understand the state of audience data and programmatic trading in the DOOH industry across five markets: Australia, Canada, the Netherlands, the UK, and the U.S. Although the market has matured significantly since this report, the themes identified to develop the programmatic DOOH sector remain the same.

Overall, the study identified 3 key themes as opportunities in the growth of pDOOH that can be applied to the Australian market:

1. **More market education**

Education of clients, agency planners and buyers (both in programmatic trading teams and traditional OOH buyers) was identified as being key to accelerating the growth of pDOOH. Understanding the benefits of DOOH, the ways in which programmatic trading can bring value to clients and how you can trade DOOH programmatically, were identified as the areas of focus for education.

2. **The need for quality and transparency in audience data**

The buy-side is generally looking for location data and screen specifications from media owners, which they can then overlay with their own first-or third-party data. Location based targeting is prevalent and respondents highlighted some trusted sources of audience data in the Australian market (including telco operators and established loyalty card operators).

Data privacy regulations and their evolution and implementation is a key factor of concern on the buy-side, including quality and collection methods of data. Understanding the accuracy and methodology of the underlying data is key for media buyers.

For pDOOH buying to increase, a standardised methodology for data definition and collection needs to be implemented and adopted by all players in the market. Initiatives developed by IAB Tech Lab for digital media, such OpenRTB, VAST, Data Label, and Open Measurement specifications, could play a role in providing the industry with data standardisation and transparency.

3. **Improvements in audience and advertising effectiveness measurement**

The study reiterated that the current industry-led measurement needs to evolve with the increased utilisation of digital formats. Audience measurement data, MOVE produced by Outdoor Media Association (OMA), was developed for static panels and currently does not accurately measure digital panels. Plans to evolve MOVE are discussed earlier in this paper.

supporting industry development

The report also acknowledges that a gap exists with attribution modelling for the OOH industry. In defining multi-touch attribution models, the contribution of DOOH is still being determined. Mobile device IDs and transaction data have been highlighted as key for attribution models in pDOOH and key to advanced attribution capabilities. It must be noted that there are ongoing tech and regulatory changes to the use of mobile device IDs however the DOOH industry is well placed compared to other digital channels as it is not trying to compete in the one-to-one advertising arena.

Tracking mobile device IDs exposed to a DOOH ad to client data collected through loyalty card or transaction data collected from retailers and credit card companies (as allowed by laws and regulations) is seen as a way of closing the attribution loop within the industry if the campaign objective is to increase sales.

If a consumer's path to purchase can be mapped from mobile location data to transactional data at a point of sale, the attribution loop could be closed. As the industry moves to adopt a more data-driven planning/buying approach, there is optimism that a robust solution will be eventually identified and developed.

In the meantime, media owners are carrying out their own 3rd party industry research to continue to prove the effectiveness of the DOOH industry and the effectiveness of their network.

innovation in tech on the horizon

The adoption of programmatic trading is driving rapid acceleration in the pace of change in the Out-of-Home industry.

Over the next 12 months, potential technological developments include:

- **Programmatic Verification** - the ability for buyers to conduct the same level of proof-of-play verification on pDOOH campaigns as is currently available for direct scheduled campaigns.

- **Real-Time Impression Data** - increase in the use of real-time data inputs (camera-based measurement; mobile location data; Wi-Fi data etc.) to dynamically update impression multiplier data in real-time.

- **Dynamic Creative Optimisation (DCO)** - the mainstreaming of Dynamic Creative Optimisation support for pDOOH, unlocking new levels of creative capability and flexibility for advertisers; and creating increased opportunities for contextually relevant creative executions.

Beyond the next 12 months, we can expect to see some components of programmatic from the online advertising space come to the world of OOH, including:

- **Header Bidding** - the ability for multiple SSPs to compete in real-time for the same impression opportunity with direct-scheduled demand.

- **Ads.txt** - the ability for media owners to declare their authorised supply paths for additional buyer transparency.

buyer's checklist

1. **What are the inventory sources?**
   - Is there enough scale?
   - Are the sites of good quality?

2. **Is my brand protected?**
   - Can you be certain that the creative will render properly on the screens selected?
   - Will the campaign adhere to regulatory standards?

3. **How are you defining the audience?**
   - Which first-party or third-party data sets are you using?
   - Is it contextual, demographic or behavioural targeting?
   - How is the model deriving the audience and matching that to screens?

4. **How is the impression multiplier calculated?**
   - What is the methodology being used and how is it reported?
   - How does it compare between platforms?
   - Is the measurement calculation transparent?

5. **What is the price?**
   - How much are the technology and agency fees?
   - How does the price compare to a similar direct buy?
   - Am I buying reach or outcomes more effectively than if I went direct?

6. **Verification**
   - Are you planning to use a verification platform?
   - If so, did I get what I paid for - number and location of screens, advertisement length, share of time, total exposure for each creative that played?

appendix: glossary of terms

Play - The term "play" is linked to the serving and delivery of DOOH ads, this term would be most closely associated with "impression" for other forms of digital advertising.

Play Event - an ad that was reported to have been played to the screen. Note that in the vast majority of DOOH experiences, all ads (when served) are fully viewable for the entirety of the play. This type of event is not considered an impression, for an 'impression' to occur, there needs to be an audience and an opportunity to see (OTS).

Viewable Ad Play - a Play Event that results in the message being displayed on a 'Screen', or 'Frame' in the real world. Note: In the DOOH landscape where there are no individual "browsers" per se, a served ad play can be classified a "viewable play" if the ad meets all the following criteria: it was contained in the viewable space of the screen, it is in an ad unit that is either full screen or partial screen & it meets pre-established minimum percent of ad pixels within the viewable space & the length of time the ad is in the viewable space of the screen.

Visibility Adjusted Contact (VAC) - a unit of measure that includes the total number of people with an opportunity to see (aka traffic), and accounts for dwell time, size of the out-of-home display, and environmental clutter, calibrated to the media's spot length. It can also be explained as the total number of times people passing a digital out-of-home display are likely to notice a message (LTS or 'likelihood-to-see). This concept is sometimes referred to as "Visibility Adjusted Impact", or "VAI" or in the US is often referred to as Audience Impression.

Common DOOH Terms:

Ad unit orientation - should be referred to as either Landscape or Portrait. Companion Ad unit orientation should also be referred to as either **Companion Landscape** or **Companion Portrait**

Audience Composition - the demographic, socioeconomic, or behavioral profile of the network's audience that is inclusive of the percentage of the total audience falling in each segment.

Audience Impression - audience Impressions are calculated by taking the won impression and multiplying it by the impression multiplier passed by the exchange. This allows advertisers to understand the potential number of viewers of our OOH campaign and not just the number of times the ad was shown

Coverage - the geographic area covered by network installations or can sometimes refer to reach % of a particular audience.

Cost per Minute - calculation of operating hours and SOV to present cost (price) to deliver one advertiser one minute of screen time

Cost per Play - the cost (price) to deliver an ad play on a screen. Variations in the advertising play length will exist.

Cost per Thousand (CPM) - the cost (price) to deliver 1000 impressions or contacts

appendix: glossary of terms

Dwell Time - the length of time an individual is in a Screen Exposure Zone which is a location from which the screen is visible and, if appropriate, audible. (Source: MRC Digital Place-Based Audience Measurement Standards Version 1)

Environment - the place and location of the advertising network and screens. Examples include supermarkets, shopping centres, office buildings and other places where consumers can be found.

Frequency - the number of times the target audience is typically exposed to content, advertising, or a specific ad, in the defined time frame. Frequency represents the average exposure when used in conjunction with cumulative reach estimates.

Impression Multiplier - the impression multiplier is greater than zero (but can be less than one) value passed on through the bid request by an exchange to signify the Audience Impression count - or potential number of viewers - for that opportunity or request. Impression multipliers are measured in a few different ways by vendors

Media Unit - a unit defined by the DOOH network, used to describe the physical device on which a DOOH ad unit will play. Common media unit type references in Australia include **panels, site or faces**. Most often for digital place-based networks, a media unit is a single screen, however in locations where multiple screens are combined to portray content that is larger than one screen, the entirety of the group of screens may be referred to as a single media unit.

Notice - The percentage of respondents who claimed to have noticed a screen.

Play Length - the interval of time when a DOOH message is viewable. Also as **message duration** in other markets.

Reach - the net (unduplicated) count or percent of the defined universe of the target audience exposed to content, advertising campaign, or a specific ad within a defined time frame.

Rotations / Faces - a rotation or interval of when a DOOH message is viewable. Most DOOH displays will have multiple advertisers in a rotation.

Screen - a device or medium designed to deliver Digital Place-Based, Digital Out-of-Home, and/or Advertising content whether it be video, audio, or both.

Target Audience - any audience reflecting the most desired consumer prospects for a product or service, defined by age, sex, race, ethnicity or income; or their combinations for any geographic definition. Expanded targets include purchasing, behavioral, and audience segmentations.

Universe - a geographic universe or coverage definition stated on the basis of population amounts is required for Digital Place-Based / Out-of-Home Networks subject to measurement. These may be customized (or limited) based on the specific attributes of the network and the associated Venue Traffic.

appendix: glossary of terms

Audience Composition - attributes of the audience of a given campaign or set of campaigns. Very often based on demographic (e.g. 56% male/44% female) or geographic attributes.

Audience Reach - a term that provides a count of the total number of people who were Likely to be exposed to the message.

Behavioral Profiles - profile based on past-observed behaviour, typically within 30-90 days of recency. Behavioural profiles may or may not refer to a profile about unique users.

Behavioural Segments - segmenting audiences that are defined by previous behaviours, frequently their recent online behaviour, or offline purchases and visitation. For example, an auto advertiser may seek to reach anyone who's visited an auto review site in the last 30 days.

Buyer-graphic - profile based on past purchase behavior, such as: What items? When? How much was spent?

Census Demographics - Australian Bureau of Statistics (ABS) population statistics.

Consumer Spending Data - data on consumer spending.

Content - non advertising material displayed on a screen.

Demo Targeting - targeting audiences that are defined by demographic attributes i.e. age, gender, household income, presence of children.

Geographic Targeting - targeting audiences defined by their location in the real-world. Location attributes can vary from granular attributes such as mobile/GPS-enabled latitude/longitude data to broader attributes as post code or state/province. In technical specifications, targets may simply be referred to as "geo", "user", "audience" without spelling out the full term.

Look-alike Targeting - targeting audiences that have some number of attributes in common with an audience of interest. For example, an advertiser may target "look-alikes" of past purchasers, i.e., people who share demographic or behavioral characteristics of past purchasers but have not themselves made a purchase.

Operating Hours - the period of time each day the sign location is displaying advertising and content.

appendix: glossary of terms

Psychographic Targeting - targeting audiences defined by personality, interests, attitudes or mindsets, e.g., Financial Optimists, Environmentally-Conscious Consumers. Often driven from offline surveys and stated preferences.

Retargeting - targeting audiences that are defined by having recently shown interest in said advertiser, interest most often being defined as visiting the advertiser's website or store location.

Segmentation - dividing a broad group of consumers or businesses into subgroups (known as segments) based on shared demographic/psychographic/behavioral attributes. Segmentation is often used to create target audiences (comprised of one or more segments) or to customize an offer or message for specific segments.

Share of Voice - amount of ad display time received out of the total display time of call advertisers and content displayed. Usually calculated over a 24 hour period or operating hours, whichever is shorter.

Target Audience - A specific group that an advertiser seeks to reach with its campaign. Target audience is defined by a certain attribute or set of attributes (e.g. Women aged 18-24, Sports Car Lovers, Shoppers In-market for a New Sedan).

more resources

[Attitudes to Programmatic DOOH research: July 2021](#)

[DOOH from go to whoa webinar: June 2020](#)
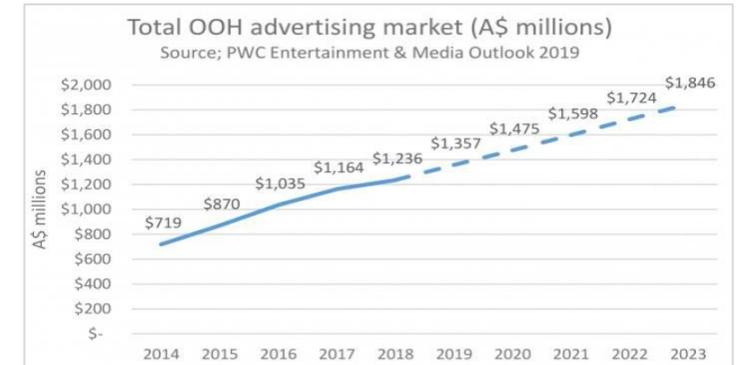

[Programmatic DOOH in Australia: Member Q&A](#)

[In the Know on Programmatic DOOH webinar: April 2021](#)

[DOOH glossary](#)

[The Opportunity of DOOH Programmatic Advertising January 2020](#)