Papers

Out-of-home and top of mind: Moving beyond panels in out-of-home marketing

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Abstract   After exploring the state of advertising, with particular regard to out-of-home media, this paper discusses how the online experience has created new expectations from both advertisers and consumers, requiring changes in the practice of out-of-home marketing. The paper argues that it takes more than simply digitising media assets to stay at the forefront of innovation. Rather, it is essential to find more opportunities to collect valuable insights from increasingly connected consumers. Out-of-home advertising today is increasingly dependent upon a data-driven approach. This paper explores the issues of accountability relating to out-of-home media, and how to address these issues by harnessing data and building a value-creating ecosystem.

KEYWORDS: media, out-of-home, billboard, data-driven, audience measurement, data-led creative, digital, media, accountability

INTRODUCTION

Outdoor/out-of-home (OOH) media must be one of the oldest, if not *the* oldest, media format in the world. Pictures and records from the Roman Empire, Imperial China and the Middle Ages alike show announcements on sheets of paper being put up on buildings.

Always located in town centres, these forerunners of modern billboards illustrate the importance of advertising in high-traffic locations. Today, Times Square provides the perfect contemporary example.

In today's advertising and media landscape, OOH is the only traditional media format to have reported a consistent yearly growth over the last ten years. Global OOH advertising revenues grew annually from 2010 to 2018 at an average of +4.1 per cent[1] per year over the period, to reach US$31bn in 2018. MAGNA Intelligence and Rapport confirms that OOH media outperform other traditional media formats, namely radio, television and print, and that the consistent growth enjoyed by OOH media is mainly due to digital innovation.[1] The same report states that Asia–Pacific ranks as the largest OOH region in the world, with close to US$13bn in sales in 2018, and holds the highest OOH advertising media share at 7.8 per cent on average, compared with 5.6 per cent globally, placing it ahead of the Europe, Middle East and Africa (EMEA) and North America regions.

Looking more specifically at markets, the USA ranks as the largest market for OOH media, representing close to one-quarter of total OOH spend (worth US$7.4bn in 2018), followed by Japan (15 per cent, worth US$4.6bn) and China (13 per cent, worth US$4.0bn).

The same report predicts global OOH advertising sales will grow by 2.8 per cent over the next five years (2019–2023) to reach US$38bn by 2023, while traditional media advertising sales will be flat overall in the same period. The share of digital OOH is expected to grow to 28 per cent globally by 2023, following an average growth rate of +12 per cent of advertising sales between 2019 and 2023. There are a few main drivers for this growth.

Growing urbanisation means OOH is becoming a more prominent medium for more people. As people spend more and more time outside their homes, OOH marketing increasingly provides brands with the opportunity to reach a mass audience rapidly and consistently. OOH marketing remains a key medium for surrounding audiences in their everyday environment. It can reach them while they are close to the point of sale, and when they are more receptive and less distracted by other media. Taking the example of Singapore, based on JCDecaux's streetside inventory, one billboard network offers about 130 faces, making it possible to reach 70 per cent of the country's adult population within a week.

Another key indicator and fuel for the growth of OOH media is the digitisation of outdoor assets. As a supporting example, the evolution of the average global consumer's exposure to various digital OOH media increased from 8 minutes per week in 2007, to 14 minutes in 2013, to 56 minutes in 2017.[2]

Given that internet use is accelerating worldwide, with some 5 billion people estimated to spend an average of 6 hours and 42 minutes online each day, it could be argued that OOH is not the dominant media platform. However, when looking at online activity per dollar spent, OOH marketing emerges as the most influential traditional medium for search, Facebook, Twitter and Instagram activations. Indeed, Nielsen's study on OOH media in the USA shows that OOH media are very successful at capturing the attention of the urban audience and driving traffic online.[4]

This study found that the most common action taken on mobile after exposure to OOH media was using online search to look up information about the advertiser (35 per cent). This was followed by accessing a coupon or discount (22 per cent), visiting an advertiser's website (22 per cent), downloading or using an app shown in the advertisement (15 per cent), taking a photograph of the advertisement (14 per cent), and interacting with the advertisement to send a message, upload a photo or vote (6 per cent).[4]

Besides altering audiences' consumption habits, online has changed the media landscape. Online advertising offers performance indicators to marketers, giving them a form of accountability that traditional media, and specifically OOH, had previously been unable to offer. With the shift towards advertising dollar placement in online media comes great responsibility on the part of the media owner. Online media have been surrounded with issues of reporting transparency, viewability and measurement issues, as well as fraud and brand safety scandals.[5]

The very nature of OOH media has addressed some of these issues. OOH advertising offers actual, chosen locations to guarantee viewability and brand safety, a broad reach, human traffic (ie not bots), and proof of play. Challenged by the monetisation of media brought about by online, OOH marketing has had to evolve in what it is offering to advertisers and how it allows them to measure campaign performance.

On top of this, with the advent of the digital revolution, consumers' expectations have changed. The World Economic Forum ascribes this change to five key drivers: mobile and internet, connected devices, analytics and cloud, user interface, global accessibility and urbanisation.[6] As a result, customer expectations are becoming increasingly exacting. Some essential attributes of customer expectations in today's digital world include contextualised interactions; seamless experience across channels; anytime, anywhere access to content and services; transparency; and access to peer review and advocacy.

This paper discusses how OOH marketing is focusing its efforts on developing better measurement metrics to meet the ever–evolving needs of advertisers and to remain at the forefront of the media landscape. The paper will also explore how this allows advertisers to plan more integrated consumer journeys, delivering better experiences to increasingly demanding consumers while maximising campaign returns.

ACCOUNTABILITY

As far as accountability is concerned, until the advent of digital and data, the whole basis of OOH measurement was about studies, interviews and simple audience numbers. This is not to say that marketers have in recent years begun to challenge the efficiency of the medium (indeed, OOH continues to be the only traditional medium to grow year after year[7]); rather, it is simply that in terms of measurement and accountability, the guidelines for OOH media have historically been less specific. Anecdotally, some have tried to explain this by suggesting that because OOH marketing gets seen by real people, it is inherently more trustworthy than digital marketing. A more plausible explanation resides in its history: the fact that this medium has withstood the test of time to become the oldest surviving media channel has created some kind of implicit trust. The same cannot be said for digital, which only truly emerged over the last two decades and boomed with the rise of mobile devices. Proving efficiency is the burden of new entrants. Every emerging media channel has had to prove itself and offer some measure of accountability.

The value creator triangle

The truth is, the consistency and high requirements of measurement and accountability are becoming progressively harder to achieve and to standardise in the digital world. With most marketers parking large portions of their marketing budgets in Facebook and Google advertising, is there a basis for evaluating efficiency against other media? Against what can performance be benchmarked and assessed? To answer these questions, marketers developed the concept of attribution. However, even with the interest of marketers and the genuine initial

engagement of Google and Facebook, as well as specialists like VisualIQ or Neustar, attribution became increasingly hard to structure. Despite OOH marketing helping to drive online traffic as consumers' exposure to digital OOH media contributed to the burgeoning consumption of online media, online took an increasingly large share of media spending. Discussions eventually resulted in the formation of massive walled gardens, with each side trying to promote its own point of view and developing its own measurement until the idea was terminated. Nevertheless, attribution remains one of the top priorities for US marketers.[8]

In addition to fostering greater opportunities for accountability, digital OOH marketing propels growth in the OOH industry. As data and technology play an increasingly significant role in OOH media, trading will move from buying 'space and time' to 'impressions' and ultimately a move from buying 'opportunity to see' to 'actual views and engagements', bringing more accountability to OOH media.[9] There are also new opportunities in a value creator triangle involving marketers, landlords and consumers, in which the outdoor media owner serves as the middleman.

The first element of this triangle is in creating value for marketers. The rise of digital is changing paradigms and opening the gates to new possibilities. New currencies for OOH are now available where before they were not. In recent months, a shift in mindset and understanding has made marketers realise that real-time data, precision marketing and measurement are now applicable to the OOH industry. A recent study by the Digital Place Based Advertising Association found that 44 per cent of media planners had recommended a combination of mobile and digital OOH in their media plan.[10] Key shifts, even those that are more structural, are the key to moving towards an audience-based sale. This acceleration is directed by the availability of data and the evolution of OOH marketing

towards a data-driven industry. This is drastically changing expectations from both landlords and marketers.

The second element of this triangle is mobile acceleration. It is estimated that 4.78 billion people will have a mobile phone by 2020 and that 55 per cent of the global population will be urban.[11] OOH marketing is and will remain at the heart of any mobility pattern and will offer tremendous possibilities with mobile, especially when it comes to accountability and measurement. Moreover, as urban audiences are increasingly connected via their mobile devices, the heightened interaction between OOH and mobile media allows relevant content to be delivered to this audience across platforms.

The last point of this triangle is the very essence of digital OOH — of media owners working with landlords. The foundation of the OOH media business is landlords (private or public) willing to offer services to citizens, paid by advertising, for instance, bus shelters. Advertisers are ready to buy OOH media campaigns and include them in their media plan. Driven by data, both sides work on the same criteria in any given contract, namely accessibility, comparability, accountability, actionability and valorisation. What results is a full cycle that is mutually beneficial.

In a wider context, OOH marketing must solve several issues to be fully accountable.

- *Real-time quantification* is essential to understand what can be sold and answer the traditional reach and frequency equation: how many people does the campaign reach and how many times are audiences exposed to the message. With Atlas, Facebook almost managed to nail down the key element of accountability with adtech.[12]
- *Real-time qualification* is all about building better audience knowledge around outdoor assets to power media optimisation. Knowing 'who you reach' is a must in a digital world, especially when

marketers are driven by 'people-based' ecosystems like Amazon, Snapchat and Alibaba, where data are not cookie-based.

- *Real-time key performance indicators (KPIs)* to understand the performance of OOH media, from drive-to-store to drive-to-web. This is essential in addressing challenges with audience KPIs from clients and to allow media planners to adopt an omni-channel strategy.

To overcome these challenges, the new engine is data. Combining open, first and third-party data is the most efficient way. Where OOH marketing is concerned, the old advice about correctly framing the problem being the best way to resolve it could not be truer.

Audience measurement

There is a wealth of data in the OOH environment — and this information is not limited to streets. OOH media can be found in airports, stations, subways, shopping malls and theatres. Structuring the reach and frequency of an audience in an airport, mall or station requires different approaches as one must consider the flow of people, dwell time and speed. These factors offer large numbers of possibilities and are subject to bias in methodologies. To take airports as an example, each one is different in size, population and activities. Thus, when measurement is at stake, there must be common ground to minimise those differences. Despite best efforts, some bias will remain; this is why assumptions will have to be made. Compared with digital media, where each giant develops measurements based on its specific characteristics to define accountability, OOH marketing is trying to develop something more consistent and less dependent on the platform selling the media. To be more specific, while we will never see Google and Facebook measuring audience the same way, we could yet see JCDecaux

and other media owners using the same audience measurement methodology and platforms.

The fact is, media owners have tried many ways to offer accountability in OOH marketing, but these initiatives have largely been limited by the inability to attain global coverage and activation. Country-specific audience measurements have been created in certain markets, offering a kind of market-specific accountability. Examples are Route in the UK, Affimetrie in France and Geopath in the USA. These initiatives are essential for the industry, but the question could be asked: is it enough for OOH marketing to have measurement on a local level when global digital players offer measurement at a global scale? There are no definite answers. The challenges faced by today's marketers require both local industry committees and private initiatives.

An example from the group is JCDecaux Singapore's initiative, which, for the first time in this market, delivers information to advertisers regarding the unique audience and reach of OOH media assets at bus shelters. Utilising mobility intelligence, Streetside Audience Measurement (SAM) was developed and launched in June 2019 to help media owners deliver more accurate and recent data than existing OOH audience measurement systems in Singapore, bolstering a data-driven approach in engaging target audiences.

In contrast to existing OOH measurements, which are built upon information on commuters' regular routes and personal accounts of movements through surveys and journal-keeping, SAM is based on real-time mobile analytics. SAM was developed jointly with DataSpark, a mobility analytics expert specialising in the provision of mobility insights from mobile data from some of the largest telcos in the Asia-Pacific region. DataSpark, through its patented mobility genomes, transforms anonymised and aggregated mobile data into valuable audience insights surrounding

how audiences move throughout Singapore daily. This methodology takes into consideration the mobility patterns of both motorists and pedestrians throughout the day. The data garnered also incorporates the unique characteristics of the OOH media, such as viewing distance and the orientation of advertising faces at bus stops.

The methodology comprises five main steps:

1. The data are collected from signals of the 4 million anonymised mobile phones that produce 1 billion geo signals daily, captured from five different sources: network location, mobile usage, GPS, website history and customer relationship management. Figure 1 illustrates how cell towers track a commuter's journey. As the commuter moves along his/her journey, his/her mobile phone's connection to the cell tower switches between different towers. As the commuter's mobile phone does not connect to all cell towers, DataSpark will be able to ascertain, for example, that the commuter moved forward along the road without making a turn at the

junction. In Figure 2, using the example of someone staying at the same location, cell tower 1 will ping a person's mobile phone to wake it up every 15 minutes or so. This provides feedback that the individual is staying at the same location.

2. The data are cleaned and structured to be transformed into actionable insights. DataSpark calls this the 'Mobility Genome™'. The data are further refined with JCDecaux's inputs on OOH industry practices and geolocation of bus shelters. For example, a radius of 40 m around each bus shelter was defined as the range where data should be captured as this is the standard of visibility for a 2 m^2 advertising panel in an outdoor environment. In addition, upstream and downstream facing panels are identified to ensure that traffic is allocated as per traffic orientation, and advert exposure is not over-counted. Various tests have also been performed on selected bus shelters to ensure the validity and robustness of the data.

3. The understanding of mobility patterns is delivered in the form of total opportunities to see (OTS), frequency, unique SIM card reach and audience
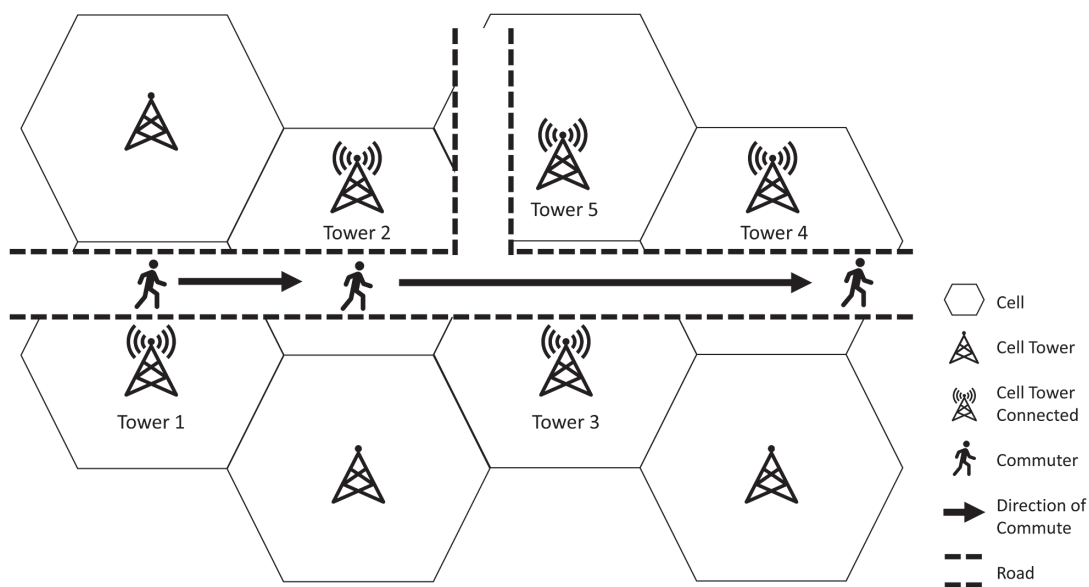

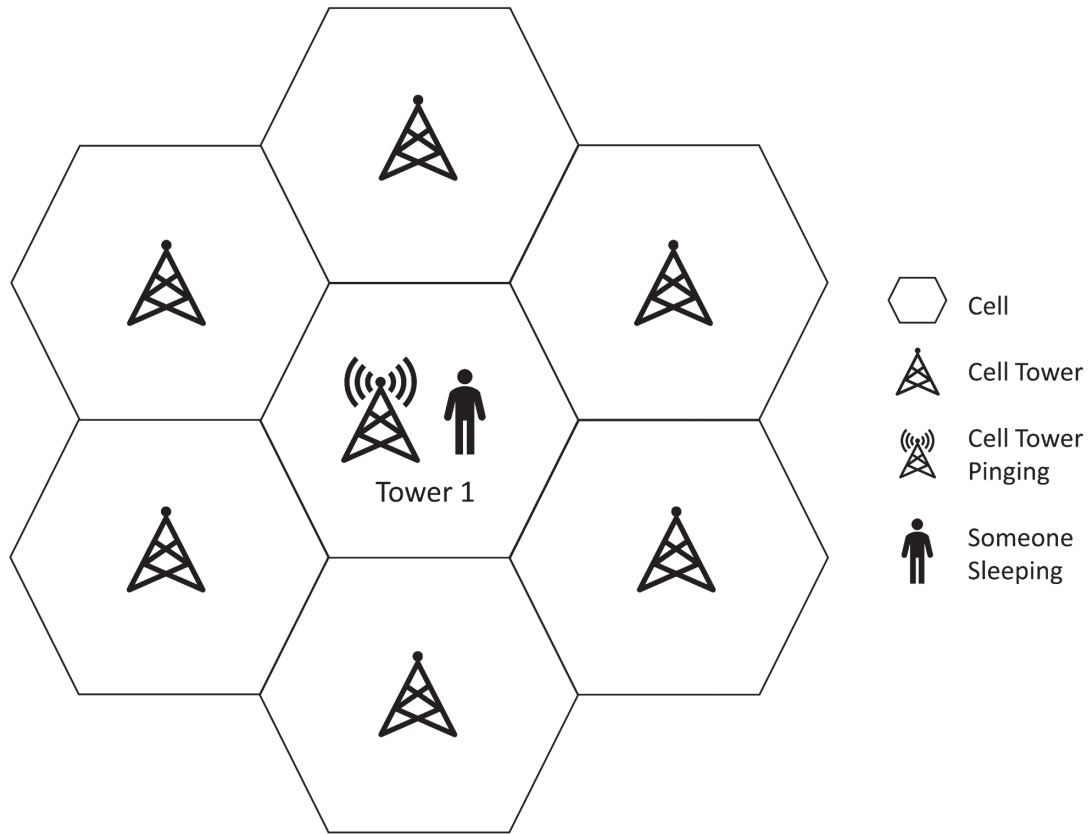
Figure 1: Network location — commuter moving

Figure 2: Mobile usage — person sleeping

demographics for bus shelters and defined networks.

4. To ensure real accountability and transparency, JCDecaux completes those KPIs via the delivery of unique individual reaches through the de–duplication of mobile ownership (a coefficient of 1.35 for Singapore when normalising the mobile penetration rate of 1.48, against the base of subscribers used in the mobility pattern study). Reach is calculated in the form of a percentage over the Singapore population.

5. Using machine learning, all the data, inclusive of the reach of all individual bus shelters and predefined networks, are used to derive the same KPIs for bespoke customised networks. The tool to enable this was built by the JCDecaux global data team in an effort to better serve the market and offer transparency and accountability to advertisers.

Advertisers can expect estimates of campaign KPIs such as OTS, unique reach, unique audience and frequency of exposure for standard bus stop networks and large format billboards along the expressway. For instance, the broadcast network yields a weekly OTS of 32.2 million impressions among 3.12 million unique individuals, translating to a unique reach of 70 per cent of Singapore's population and a frequency of 6.5.

Real-time hourly audience information derived from traffic counters deployed at the busiest bus shelters in prime areas will be layered on the data, giving a deeper level of granularity to the digital panels. Traffic counters able to segment pedestrian from

vehicular traffic will also be used to extract a proportion of both modes of transport at bus shelters. In the coming months, the mobility insights will further be enriched with the behavioural profiling of outdoor audiences.

All the data used by JCDecaux Singapore for this methodology is fully compliant with the EU General Data Protection Regulation (GDPR).

Having developed the methodology for an outdoor environment, the considerations are different for an indoor environment like the airport. The Airport Audience Measurement (AAM) is another initiative that is the first of its kind to strengthen the accountability of OOH media compared with other media.[13] AAM is a private initiative that aims at giving marketers the tools and understanding they need to buy into airport media with confidence. Applicable on a global scale, built on a solid methodology audited by the French Centre d'étude des supports de publicité (CESP), fed by global data provided by a relevant third party (NPD Travel Retail), it is a first milestone towards accountability. This methodology can be applied to any airport to provide audience KPIs for a given campaign. Although not a perfect measure, it is at least a starting point upon which more can be built.

To achieve this goal of obtaining campaign KPIs with the right level of confidence, seven basic questions must be answered:

- How many unique passengers are arriving and departing from/at a given airport each hour?
- Where will those passengers go within the airport?
- What assets will they be exposed to?
- When will passengers be in each area of the airport?
- Will passengers see the campaign when walking through an asset displaying it?
- How many times will they see this campaign?
- Who are those passengers?

These questions are answered by integrating a combination of skills ranging from data science, expertise of airport areas, internal fencing, airport modelling and media knowledge etc. This results in AAM being a scientifically based platform derived from data science and audience modelling, driven by an international methodology and airport-specific inputs.

Like any other measurement methodology, this can be challenged or improved. There is great potential to scale this methodology in stations, malls and buses to facilitate understanding of the value of OOH marketing. This is only possible thanks to data availability, but also requires new talents to join organisations, bringing with them diverse skill sets and experiences. As always, changes and evolutions are driven by the people and the skills, with data just an enabler.

The next steps are even more exciting. Thanks to data, porosity in media and the pervasiveness of digital, it is now possible to think ahead and dive into real measurement at a global scale. As recently discussed elsewhere,[14] this combination will also help accountability and facilitate A/B testing, uplift and contribution measurement. While this is already in some ways possible today, albeit with a degree of complexity, it is not yet available at scale.

Up to this point, accountability has been examined through the lens of measurement or elevating efficiency. This is but one definition of accountability; another angle is actionability. To progress, digital OOH media must be accountable *and* actionable; any insights gathered from the data must be translated into actionable insights relevant to the advertiser's objectives. The currency for activation, well understood in digital environments, is audience.

In a digital ecosystem, be it a social network, a search engine or in programmatic, audience is understood to be very granular and profiled based on users' online behaviour. When it comes to OOH media,

the personal identifier (PII) is not the most relevant currency, not least because it is hard to capture and track. Across the globe, data privacy laws such as the GDPR are making the job of advertisers and media owners more challenging but also much more transparent for end users. For digital OOH, information about the audience comes from a combination of open, first and third–party data:

- Open data are free, usually offering a good level of quality. Hiring skilled manpower to process and maintain the relevance of such data, however, can be a challenge.
- First–party data also require significant investment as sensors will need to be installed on assets in order to generate the data. The prerequisites are that there is a large enough coverage, there is capacity to process the data and that there is sufficient capital to support these projects. GDPR provides boundaries to ensure that data collection remains within acceptable limits.
- Third–party data are richer as there is access to very structured data, usually based on online footprint. When the right filters are applied, very relevant insights can be derived.

In what follows, the paper will build upon the wealth of data available for OOH marketing to leverage and the various initiatives undertaken by OOH media in recent years to discuss the potential applications for OOH media. Indeed, the unique characteristics of OOH media offer myriad possibilities waiting to be discovered — even more so with digital OOH. The digital advertising panel typically found in a public space can be reimagined as a mobile screen placed close to stores.

APPLICATIONS
Data-driven media planning
The use of data and technology in OOH marketing is bringing about quality of reach and segmentation with a better understanding of the effectiveness of the media, new ways of planning and easier accessibility.

Audience metrics are being integrated into assets and networks to allow for better planning and the measurable delivery of campaigns. Technology has aided this by allowing data to be structured in ways that queries can be made, similar to online planning. This move towards programmatic OOH media as defined by Jean Christophe Conty, Chief Executive of VIOOH, as 'a trading mechanic not a channel, delivering a more automated process and flexible trading model … enabling access to digital OOH inventory via a demand side platform, with ads traded on an impression basis, distributed through an hourly auction'.[15]

It is indeed essential to clarify what programmatic refers to for OOH media, as some media owners have claimed to be delivering programmatic campaign for their clients when only allowing for optimisation of content based on the integration of live feeds. This will be elaborated on in subsequent paragraphs.

The USA has led the way, together with the UK and Australia, as the most advanced markets in terms of programmatic digital OOH. To illustrate this, 20 per cent of digital OOH media in the USA is already bought programmatically. A company like DOmedia, which operates the largest supply-side platform (SSP) and demand–side platform (DSP) in the OOH industry, connects both global agency holding companies and local advertisers alike to over 1.5 million US media assets, including nearly half a million billboards. In 2016, DOmedia powered over 10 per cent of all US OOH media spend.[16] In the UK, Enders expects total programmatic digital OOH advertising spend to reach £200m in 2019, although with some £4.52bn spent via programmatic channels 'it really is all to play for', according to the VIOOH white paper.

VIOOH, and other programmatic platforms for OOH marketing in general, seek to grow OOH advertising spend globally by providing automation and programmatic trading for OOH media sellers and buyers.

By plugging the OOH inventory onto existing DSPs, media owners are offering a simpler, real-time buying option to enable better media planning optimisation. This also facilitates media buying across platforms and ideally steps closer to delivering a more omni-channel journey to the consumer while easing attribution for the advertiser. According to Craig Benher, Chief Executive of Accreditive Media, 'This fundamental change in thinking can and will make OOH a more addressable and accountable medium and puts us in a better position to secure a larger share of an advertiser's spend'.[17]

Data-driven creatives

The digitisation of the OOH media landscape provides an important entry point for reaching hyper-connected urban audiences with real-time news and information. Today's media owners and advertisers must inform, connect and entertain an audience that expects more targeted and personalised content, more entertainment and greater relevance.

This section explores how creativity will be boosted by data-driven content powered by contextualised insight and situational triggers, increasing the relevance and impact of OOH creatives. The discussion delves deeper into how brands can leverage their own data, and integrate live feeds and external camera-based triggers.

An example of a brand using its own data is Spotify's global OOH advertising campaign for the 2018 Christmas season. For this campaign, the digital music service provider crunched user data and cleverly transformed it into witty headlines based on the theme '2018 goals'. According to Spotify's Chief Marketing Officer, Seth

Farbman, 'The ads worked so well because music is such an emotional experience, and data about our listening habits, on the macro level, taps into our collective mood'.[18]

The real-time data used to augment audience targeting can be as straightforward as time, weather, news or traffic information, or more complex, such as social media feeds, flight information or trending e-commerce products. For a given campaign, integrating such data via the application programming interface (API) allows the advertiser to display creative that best reflects the audiences' circumstances. Where data power creative, campaigns report a noticeable uplift on metrics such as brand recall, awareness and sales uplift.

To illustrate, consider the results of a Cadbury campaign that ran in the UK in 2014. When the brand ran generic creative across a smart screen at Tesco, this led to sales uplift of +8 per cent. The brand then utilised sales data from 50 different stores to run bespoke creative at those stores. The bespoke creative featured the best-selling Cadbury products for that store and encouraged consumers to try a different product. Sales increased by a further +8 per cent during the campaign and +4 per cent post campaign.[19]

Further studies in the UK have shown an 18 per cent increase in brand awareness, 12 per cent more prompted recognition and 53 per cent higher message recall[20] when dynamic content was utilised. In this way, the customisation of content at scale has been proven more effective in capturing the attention of audiences, driving brand awareness and advertisement recall, translating to increased return on investment.

Some OOH digital screens integrate cameras, making it possible to maximise the reach to targeted audiences. This is done by optimising the campaign's triggering scenario and analysing the effectiveness of the creative to understand on a deeper level how each target audience has responded

to the targeted advertisement. This further enables the advertiser to optimise its communication strategies and increase the return on future campaign investment, driving engagement, traffic and sales.

An example of this is an Aldo campaign supported by Quividi, which ran in the USA in October 2018. For this project, URW and Quividi conducted a two-week campaign across the URW network. During the first week, sales and traffic data were collected, but no creative ran. During the second week, the campaigns were launched. Targeted creatives were triggered in real time based on specific shopper demographic profiles, while generic advertisements were displayed at all other times. The triggering and contextualisation strategy delivered a + 31 per cent higher attention time than generic advertising, resulting in a + 11 per cent increase in in-store basket size.[21]

Layering a programmatic audience-based media-buying approach with content optimisation makes it possible to display the advertisement only when certain conditions are fulfilled. This would not have been possible for OOH marketing in the past. In 2015, Google's Media Lab team, in partnership with OOH media owners JCDecaux, Ocean Outdoor and Outdoor Plus, ran a trial using Google's DoubleClick technology, which pulled in historical and real-time data signals to decide which creative messages to display, which billboards to display them on, and the best time for them to run. This campaign showcasing their YouTube product ran 500 creative variants across London using signals such as traffic data, weather and sport news to deliver the advertisement only when the conditions were met.[22]

Digital capabilities also bring advertisement engagement to the next level by allowing OOH media owners to source and develop innovative tech to power screens with augmented reality; interactive screens; live-streaming or cameras with movement sensors; beacons; and near-field communication (NFC) to turn OOH advertisements into points of sale and bring prolonged brand exposure, helping brands build genuine connections and two-way conversations with their audience and create a lean-in relationship with the media.[23] A recent example is the 'Avengers: Endgame' augmented reality campaign, which leveraged Snapchat to immerse passers-by in the Marvel universe. This campaign ran in New York City in March 2019.[24]

OOH and its complementarity to online

The previous paragraphs explored how OOH marketing is transforming by leveraging tech and data to put itself on a par with online advertising. The subsequent paragraphs explore the synergy and complementarity of OOH with online and, most specifically, mobile advertising.

According to the OOH Online Activation Survey conducted by Nielsen in 2017,[25] OOH marketing is the most effective offline medium for driving online activity. As Figure 3 shows, compared with other traditional media such as television, radio and print, OOH media deliver more online activity per advertising dollar spent. In this study, online activations, including search, Facebook, Twitter and Instagram activity generated by OOH, indexed at about four times the expected rate given the relative advertising spend. For example, OOH media account for 26 per cent of gross search activations generated by television, radio, print and OOH media combined, but only 7 per cent of the total combined advertising spend. According to an OAAA article that discusses this study:

> 'nearly five in 10 US adults (46 per cent) have used Google, Bing, Yahoo, or another internet search engine to look up information after seeing or hearing something advertised on a billboard, bus shelter, or other OOH formats in the past six months. Nearly 40 per cent have visited
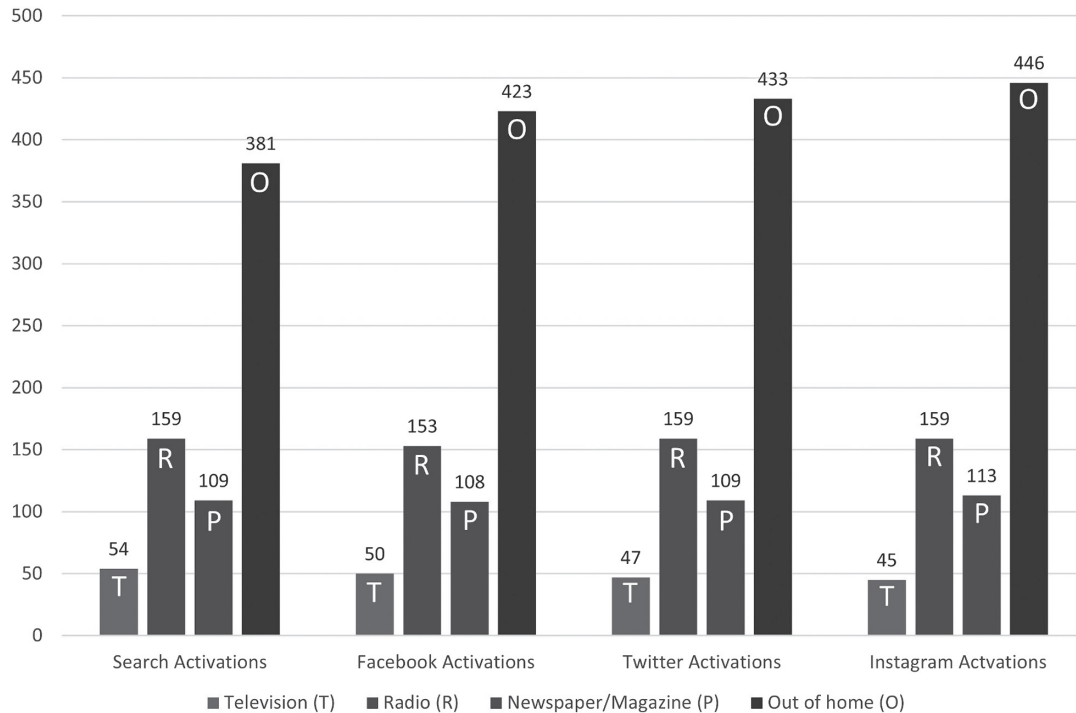
Figure 3: Online activations indexed against media spend
Based on data from Out of Home Advertising Association of America (2017) 'Nielsen: OOH most effective in driving online activity', available at: https://oaaa.org/StayConnected/NewsArticles/Marketing/tabid/324/id/4912/ Default.aspx (accessed 3rd June, 2019)

a Facebook page or posted a message on Facebook after seeing an OOH ad'.[26]

Integrating mobile and OOH marketing strategies through location-based targeting has been proven to deliver more than just commercial advantages. Research conducted by Posterscope in 2016 shows that mobile click-through rates increase by up to 15 per cent when supported by OOH marketing.[27] Meanwhile, research from OutSmart[28] demonstrated that better-performing OOH campaigns create a 38 per cent uplift in short-term brand action taken via mobile devices, with 66 per cent of all actions being direct to the brand itself.

Depending on the market, the proliferation of NFC, beacons, augmented reality and QR codes in OOH marketing allows marketers to meet on-the-go consumers who seek instant gratification and strategically drive them to point of

sale, whether in-store or mobile. This subsequently boosts traffic and delivers short-term sales uplift. An example of this is the Aldi Claw campaign delivered by STDecaux Shanghai, which turned one's mobile phone into a gaming remote control and drove traffic to the retailer's online store.[29]

Finally, the use of data allows brands to better measure the effectiveness of campaigns and use data to understand audience behaviour and therefore deliver even better brand experiences in the future.

In October 2018, the IAB OOH committee shared a list of successful integrated OOH and mobile campaigns. Among these examples is one that led to a considerable increase in the sales of gaming consoles and drive to electronics retailers. The client advertised a time-limited price incentive on digital OOH media within five miles of select retailers and layered mobile retargeting to consumers who passed the

OOH units or who visited any of four key retailers where the gaming console was sold. The results were undeniable: +46 per cent in visitation lift from mobile alone, +69 per cent visitation lift from digital OOH media alone, and +127 per cent per cent lift from those exposed to both digital OOH and mobile.[14]

A second example from the same paper describes how OOH media were able to drive social impressions on Twitter. This time, an online delivery service used OOH media to cut through the noise and reach hungry consumers with creative posted on New York's streets and subways to reach out to commuters on their way home from work, when dinner was most likely on their mind. The post campaign reports indicated that within one week, the campaign had 1.1 million earned social impressions on Twitter alone, spreading to an additional 241,000 consumers on the platform and a +9 per cent increase in brand awareness; meanwhile, the advertiser attributed a +10 per cent increase in app use to the OOH media campaign.[30]

The usage of data both in mobile and OOH marketing, and tighter integration of the two media has unlimited potential. Instead of compartmentalising campaign planning between different channels, advertisers will focus more on consumer needs at different stages of their daily journeys. By defining clearer goals for each medium, they will customise content to each channel to deliver truly contextual, responsive and useful messaging for consumers. This leads to the topic of attribution and measurement of returns.

ROI measurement

OOH marketing is often considered to be the last window of influence — a unique position thanks to its proximity to stores. According to OutSmart,[31] 83 per cent of people recall having seen OOH advertising within the last 30 minutes before shopping,

making it the dominant medium within that last window.

Media owners are increasingly developing solutions to allow advertisers to measure campaign effectiveness. From the good old survey on brand uplift and awareness to collaborations with start-ups that offer tools to track incremental footfall through traffic sensors, payment gateways at advertising panels, or the use of beacons and QR codes to create OOH media, to mobile interaction or drive direct traffic online.

A notable example from the past year is the Pernod Ricard campaign conducted with JCDecaux Singapore for the Martell brand. In the campaign that took place in Singapore Changi Airport, passengers were prompted to take out their phones, open WeChat and shake their devices to receive an offer through a push notification. The campaign recorded a 93 per cent unique click-through rate. Similarly, Shiseido and LVMH have leveraged QR codes on JCDecaux Singapore billboards in Asia to drive direct traffic to a website or collect customer information — activations that have reportedly been extremely successful.

CONCLUSION

As a medium, OOH is at a crossroads. First, OOH marketing, as we knew it, is dead — replaced by digital OOH. Secondly, convergence between data, mobile and digital OOH marketing is happening faster than ever. This is pushing functions to merge, and one can easily imagine digital being a single platform for marketers. This will help in delivering a much better, more seamless, more real-time experience to consumers, as discussed in the section on applications.

OOH media owners are setting up the framework and the technology to support digital OOH. It is now the turn of advertisers to embrace and leverage that change. However, KPI literacy is still not at an optimum level. Looking at the

correct KPI for each medium is essential to building the right customer experience — and consumers are becoming increasingly demanding.

The race to unskippable, unblockable but targeted OOH advertising is on. Nevertheless, for anyone buying OOH media, an important point needs to stay top of mind. In the words of Greg Glenday, Chief Executive of Adspace Networks:

'Reaching someone out of your very specific target demo is not necessarily "waste" … It's how you create brand fame, generate word-of-mouth and build consideration. There is such a thing as over-targeting. If you want to create a national conversation, you can't do that if your message only reaches your core purchase intenders … You lose all of the intangible benefits of reaching people outside of that bucket. This is a strength of out-of-home that was thought of as a weakness.'[32]

In addition, where we, as media owners, operate by offering a new level of services for citizens, this will also benefit the ecosystem. This will close the loop and support the idea that free services to citizens can be financed by advertising.

References

1. Magna Global (2019) 'A new market research by Magna and Rapport: out-of-home outperforms', available at: https://magnaglobal.com/a-new-market-research-by-magna-and-rapport-out-of-home-outperforms/ (accessed 24th May, 2019).
2. PQ Media (2014) 'PQ Media global analysis finds consumer digital OOH media exposure surged 75% in 2007–13 span, second only to mobile; faster rev growth in 2014–15 may suggest breakout', available at: https://www.prweb.com/releases/pqmediadigitaloohexposure/2014/prweb11618679.htm (accessed 27th May, 2019).
3. Hootsuite and We Are Social (2019) 'Digital 2019: global internet use accelerates', available at: https://wearesocial.com/blog/2019/01/digital-2019-global-internet-use-accelerate/ (accessed 3rd June, 2019).
4. Williams, D. (2016) 'Out-of-home advertising study: Nielsen on location report', Nielsen, available at: http://theraveagency.com/files/NielsenOAAAOOHAdvertisingStudy2016.pdf (accessed 24th May, 2019).
5. Auchard, E. (2017) 'Brands pull YouTube ads over images of children', Reuters, available at: https://www.reuters.com/article/us-youtube-videos/brands-pull-youtube-ads-over-images-of-children-idUSKBN1DO1KF (accessed 3rd June, 2019).
6. World Economic Forum (2016) 'How companies can win the race to meet customer expectations', available at: http://reports.weforum.org/digital-transformation/the-race-to-meet-customer-expectations/ (accessed 3rd June, 2019).
7. eMarketer (2019) 'Out-of-home (OOH) vs traditional media ad spending growth worldwide, Jan 2019 (average annual growth)', available at: https://www.emarketer.com/Chart/Out-of-Home-OOH-vs-Traditional-Media-Ad-Spending-Growth-Worldwide-Jan-2019-average-annual-growth/226131 (accessed 27th May, 2019).
8. Marketing Charts (2015) 'Senior digital marketers' top priorities and challenges', available at: https://www.marketingcharts.com/customer-centric-53807 (accessed 27th May, 2019).
9. Stephen, C. (2019) 'Asia Pacific is the largest OOH advertising region with nearly $13 billion in sales', Branding in Asia, available at: https://brandinginasia.com/asia-pacific-now-the-largest-ooh-region-with-nearly-13-billion-in-sales/ (accessed 27th May, 2019).
10. Digital Place Based Advertising Association (2017) 'DPAA's eighth annual survey of media planners identifies mobile and programmatic as key opportunities for DPB/DOOH revenue growth', available at: https://www.prnewswire.com/news-releases/dpaas-eighth-annual-survey-of-media-planners-identifies-mobile-and-programmatic-as-key-opportunities-for-dpbdooh-revenue-growth-300403773.html (accessed 28th May, 2019).
11. Statista (2019) 'Number of mobile phone users worldwide from 2015 to 2020 (in billions)', available at: https://www.statista.com/statistics/274774/forecast-of-mobile-phone-users-worldwide/ (accessed 28th May, 2019).
12. Peterson, T. (2017) 'Facebook to phase out Atlas brand, shift tools & clients to Facebook's products', Marketing Land, available at: https://marketingland.com/facebook-phase-out-atlas-brand-208462 (accessed 3rd June, 2019).
13. Coleman, L. (2019) 'JCDecaux to provide "unrivalled detail and accuracy" with new software', Duty Free News International, available at: https://www.dfnionline.com/latest-news/jcdecaux-provide-unrivalled-detail-accuracy-new-software-21-02-2019/ (accessed 3rd June, 2019).
14. Kirby-Stearns, R. and Rave, E. (2018) 'Case studies: OOH + mobile integration drive lift, recall, and ROI', Interactive Advertising Bureau, available at: https://www.iab.com/news/ooh-mobile-integration/ (accessed 27th May, 2019).
15. VIOOH (2018) 'State of the Nation Summary Report', available at: https://static1.squarespace.com/static/5ae70dc131d4df2f64854e30/t/5cac6541eef1a1

4883e3164f/1554801993269/State+of+the+nation_ Summary+Report.pdf (accessed 28th May, 2019).

16. Harding, D. (2017) 'The evolution of programmatic OOH advertising', Exchange Wire, available at: https://www.exchangewire.com/blog/2017/08/31/ evolution-programmatic-ooh-advertising/ (accessed 27th May, 2019).

17. Stott, M. (2018) 'Programmatic DOOH ad platform Accretive Media succeeds by providing "never-before-available targeting and measurement" of campaigns', Digital Signage Pulse, available at: https://digitalsignagepulse.com/news/programmatic-dooh-accretive-media/ (accessed 4th June, 2019).

18. Nudd, T. (2017) 'How Spotify makes its data-driven outdoor ads, and why they work so well', Adweek, available at: https://www.adweek.com/creativity/ how-spotify-makes-its-data-driven-outdoor-ads-and-why-they-work-so-well/ (accessed 3rd June, 2019).

19. JCDecaux (2016) 'Data-driven campaigns at Tesco: a new way to advertise?', available at: https://www. jcdecaux.com/blog/data-driven-campaigns-tesco-new-way-advertise (accessed 3rd June, 2019).

20. Morris, N. (2016) 'DOOH Trends & Game Changers', Outsmart, available at: https://www. outsmart.org.uk/blog/dooh-trends-game-changers (accessed 27th May, 2019).

21. Quividi (2018) 'How URW leveraged Quividi's real-time content triggering to increase attention time and sales for Aldo and Pandora', available at: https:// quividi.com/urw_quividi_dooh_targeting_impact/ (accessed 3rd June, 2019).

22. Grand Visual Theory Ltd (2016) 'Google programmatic for digital out of home', YouTube, available at: https://www.youtube.com/ watch?v=2KRJSJI61jo (accessed 3rd June, 2019).

23. O'Reilly, L. (2015) 'Google is bringing DoubleClick to billboards ads for the first time- which could be huge for outdoor advertising', available at: https:// www.businessinsider.sg/google-brings-doubleclick-to-ooh-billboards-2015-10/?r=US&IR=T (accessed 27th May, 2019).

24. JCDecaux (2019) 'McDonald's augmented reality campaign for Avengers' Endgame', YouTube, available at: https://www.youtube.com/watch?v=EQ-ZYEpYMPA (accessed 27th May, 2019).

25. Williams, D. (2017) 'OOH online activation survey', Nielsen, available at: https://omac-website. s3.amazonaws.com/wp-content/uploads/2017/05/ Nielsen-OOH-Online-Activation-Study-2017.pdf (accessed 24th May, 2019).

26. Out of Home Advertising Association of America (2017) 'Nielsen: OOH most effective in driving online activity', available at: https://oaaa. org/StayConnected/NewsArticles/Marketing/ tabid/324/id/4912/Default.aspx (accessed 3rd June, 2019).

27. Whyte, S. (2017) 'Mobile meets OOH is the sweet spot for location-based marketing', Campaign Live, available at: https://www. campaignlive.co.uk/article/mobile-meets-ooh-sweet-spot-location-based-marketing/1445624 (accessed 3rd June, 2019).

28. Outsmart (2016) 'The OutPerform Study', available at: https://www.outsmart.org.uk/news/outperform (accessed 3rd June, 2019).

29. JCDecaux (2019) ALDI DOOH claw machine challenge drives to mobile store', YouTube, available at: https://www.youtube.com/ watch?v=QPUnF5Jo98w&feature=youtu.be (accessed 3rd June, 2019).

30. Interactive Advertising Bureau (2018) 'Mobile + OOH drives massive social engagement and lift in app use', available at: https://www.iab.com/ wp-content/uploads/2018/10/dooh-case-studies-collection-17.png (accessed 4th June, 2019).

31. Outsmart (2019) 'Why OOH works', available at: https://www.outsmart.org.uk/why-ooh-works (accessed 4th June, 2019).

32. Poggi, J. and Slefo, G. P. (2018) 'Digital tech lights a fire under out-of-home advertising', AdAge, available at: https://adage.com/article/media/digital/315104 (accessed 4th June, 2019).