

Foreword

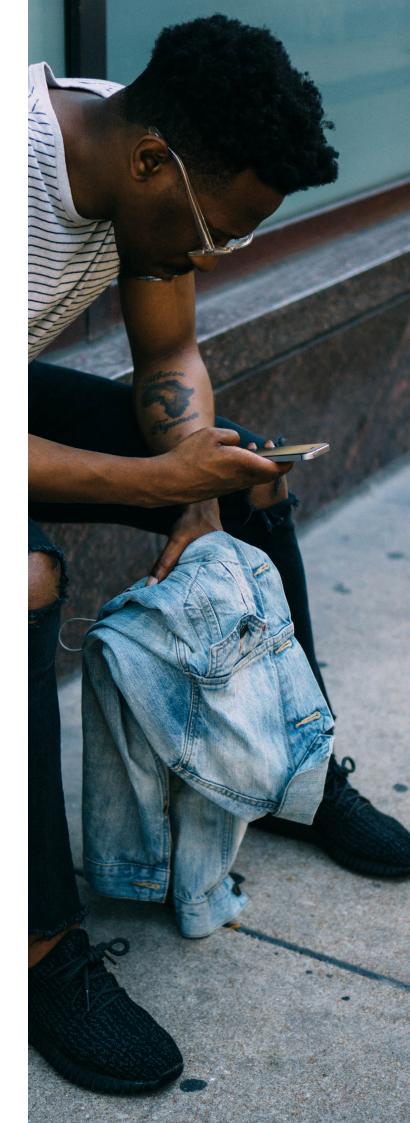
When resources dry up, the systems they sustain must adapt.

When medieval England ran out of wood due to deforestation its people pioneered the use of coal as an energy source¹. Today, oil producing nations are gearing up for a future where oil demand has slumped by investing in tourism and other industries².

A similar transformational change is now being forced upon the digital advertising industry. Its core resource - third-party tracking identities for web and app users - is being depreciated, and the industry must adapt to survive.

For years, third-party cookies and Mobile Advertising IDs (MAIDs) have given publishers a vast pool of monetizable data. That data has enabled advertisers to target their audiences with greater accuracy than ever, and consumers have as a result been able to enjoy highly personalised content and promotions.

But looking ahead, the ad tech industry must ready itself for a new privacy-centric future where such data is harder to come by. The General Data Protection Regulation (GDPR) in particular is having a significant impact on data availability. Largely as a result of the Regulation, Google is withdrawing support of cookies on Chrome or Apple is rolling out the new App Tracking Transparency framework, giving users the choice to block the IDFA identifier at the app level³.





The key question is this: in a world without ad trackers, how can advertisers continue to reach their target audiences at scale? The answer, as set out in this white paper, is for the industry to double down on context-based marketing by enriching it with spatial and geo-located audience data. The model gives all the benefits of digital personalisation with none of the privacy downsides.

When systems must adapt to resource scarcity, new opportunities arise. The exploitation of coal in medieval England led to the Industrial Revolution, and who knows what economic miracles today's oil-producing economies will drive in the future once free from their legacy industry. Likewise, I believe that the end of cookies and the deprecation of MAIDs will lead to a stronger advertising ecosystem, one where the well-known benefits of context-based marketing are taken to a new level and audiences reached in wholly new ways.

Welcome to the age of Context 2.0.



Tom Laband CEO & Co-Founder, Adsquare

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1. Proximity Targeting

Targeting in the context of location

The marketing landscape is changing with identity-based targeting being on the decline. New privacy regulations like GDPR or CCPA; restrictions on advertising identifiers imposed by Google or Apple; and a new consumer awareness have accelerated this change over the past months. The authenticated traffic will be limited in scale and restricted to those users actively logging into websites and apps. Hence, leveraging the anonymous web will become more important. In consequence, contextual targeting is experiencing a renaissance. One particular concept of contextual intelligence, which has long been underrated, currently stands out: Proximity Targeting.

Digital advertisers have long targeted people based on the context of publisher content. It's the very basics of advertising. Makeup brands will advertise on fashion blogs, sports brands will advertise in exercise apps, food retailers will advertise on grocery e-commerce sites.

The same principle extends to Proximity Targeting, also known as Geo-Contextual Targeting or Location Targeting, but instead of targeting based on the context of publisher content, advertisers target based on the context of location. In its simplest form, that could be selecting a geo-fence around certain places of interest. A burger chain, for instance, could run a drive-to-store campaign by advertising on billboards in the vicinity of a branch restaurant.

50% of consumers pay attention to DOOH location-based advertising all or most of the time⁴.

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Changing Marketing Landscape



Proximity Targeting in the programmatic advertising world is a little more complex. A range of apps collect data on the longitude and latitude of users as part of their function - weather, maps and dating apps for example, all require location data. Websites you visit can also determine your physical geographical location, for example via the IP address. Out-of-Home inventory owners guite logically also have knowledge about the exact locations of their digital screens. The geocoordinate is passed on by Supply Side Platforms (SSP) to advertisers' Demand Side Platforms (DSP) as part of a bid request. Third-party intelligence providers like Adsquare can enrich this location data in realtime with data about the context of the surrounding space.

From an advertiser's perspective this type of Geo-Contextual/Location Targeting couldn't be simpler to activate. Pre-bid, the advertiser can select places of interest from a catalogue of spatial data sourced from their intelligence provider, which are then uploaded via API integrations into the DSP prior to building and activating the campaign.

Key Dimensions of Contextual Intelligence

Web & App Context	Location Context
 Publisher Content Category Keywords Language App Rating Fraud Prevention Brand Safety Viewability 	PlacesEventsWeatherCensusPurchaseSocialMobility

Spatial data that can be leveraged for Proximity Targeting campaigns includes the following:

Places data

Describes any points of interest including buildings of interest to advertisers such as restaurants, shops, gyms, services, etc. Places data also includes landmarks, outdoor spaces or public transportation facilities.

Census data

Data generated by an official census providing information such as income level, family status, car ownership etc. aggregated for households within a geographic area. Some might also refer to it as Household Data

Purchase data

Purchase data is anonymised credit card or cash point data which provides intelligence on shopping habits within an area. Credit card segments are tied to postal areas of home addresses and are informed by the activity of millions of credit cards and billions of transactions annually. Cash point data can show if consumers are buying a certain category more in an area (Market Share Index), or are inclined to do so (Sales Trend Index), in comparison to the overall country. Market Share and Sales Trend Index values can then be combined for each postcode store group to highlight areas of focus for targeting to maximise sales opportunities.

Social data

Social data is location-based consumer sentiment based on public geotagged social posts or interests and affinities derived from social media behaviour and then mapped back to geographic areas. The average social media user sends more than 4 tweets per day and follows 50 accounts. Analysing this data across various social platforms paints a rich picture on what these users care about and helps marketers to have a bottom-line impact on their business.



Using spatial data, our burger chain could select to target all active smartphone users in proximity of its branch restaurants or those on site of the competition. Similarly, a luxury watch company could target polygons with a concentration of wealthy households. A car brand could target areas with a higher than average rate of spending on new or pre-owned vehicles.

At this point of time people are in no way being targeted, only locations. No personal data is used and the privacy of individuals is in no way in question.

Understanding the real-time location context of consumers helps advertisers deliver more relevant campaigns, as their products or services are likely to be at the top of mind; The messaging can also be tailored to an expected emotional state - influenced by the location - of the desired target group.

Adsquare provides 70 million points of interest - grouped by category or brands - with precise 2D polygon information that can be integrated pre-bid for global campaign activation.



2. Location Context 2.0

Time, movement and location intersect

The location-based Proximity Targeting described above is a tried and tested advertising approach that already adds value to advertising campaigns. However, exciting developments in Proximity Targeting mean that the approach is becoming even more powerful at targeting specific audiences. That's great news for advertisers as it will help them offset the deprecation of MAIDs in the mobile space, but it will also open new opportunities to significantly improve the targeting of DOOH campaigns.

The first innovation in Proximity Targeting is the addition of time as a data element. Data can be gathered in a dynamic way to provide intelligence on the context of a location over time

For instance, weather data can provide an hour by hour snapshot of what weather conditions will be like over the course of a day, allowing advertisers to choose frames and latitudes/ longitudes on a granular basis.

Weather data

Weather data providers offer a broad range of related targeting segments, including real-time or forecasted weather information on temperature, precipitation, wind, cloud or pollen conditions. In cooperation with market researchers, weather companies are able to build weather-infused purchase intent segments such as gardening weather, health weather or barbecue weather. Think of a barbecue sauce manufacturer that wants to target users in locations, of which we know that the next day will be high in temperature and are therefore setting the scene for outdoor barbecues.





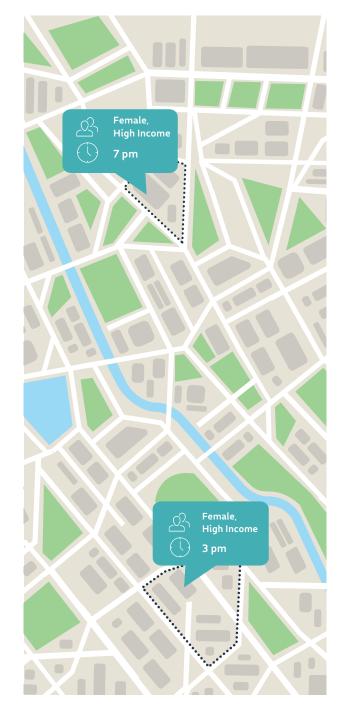
Audiences in motion

Where the latest iteration of Proximity Advertising really gets exciting is when geolocated audience data is added to the mix. Audiences in Motion are Adsquare's consumer mobility data-sets. Adsquare combines mobile audience data with SDK-derived background movement data and connects the corresponding audience segments to country specific geometries and OOH locations.

For each segment, Adsquare calculates indexes based on the ratio between all users seen within a geographic area and the desired audiences. These calculations allow Adsquare to score each audience segment for each geometry and for each hour of the day. For full control about quality and reach, marketers are able to change the index value in Adsquare's self-service platform. Adsquare understands what parts of cities are more visited when and by whom, enabling marketers to run targeted ads in real-time with a lot more precision.

Imagine, for example, a sports apparel brand, being able to activate a marketing message on a digital billboard the moment a gym lover walks by, and then retargeting that same person on their mobile device moments later.

Adsquare 'Audiences in Motion' segments are calculated for every hour of the day to provide advertisers with the most timely data.





Future-proof methodology

On the surface, it may sound like creating Audiences in Motion is only achievable with access to tracking IDs. In fact, the approach relies on statistical modelling, so it can be achieved with only a small volume of identifiers. Because statistical modelling is applied, Adsquare has calculated that just 5% to 10% of mobile device owners need to consent to sharing their MAIDs. Given that opt-in rates for Apple's IDFA alone is expected to reach between 10% and 20%⁵, there will be more than enough consented, GDPR-compliant data available for this new approach to audience targeting to be viable.

In addition, Adsquare is increasingly unlocking the power of mobile network data through partnerships with telcos. Mobile network data, also known as spatial telco data, is cross-referenced movement and CRM data in an aggregated and anonymized form connected to a geographic level such as postal code. Spatial telco data helps programmatic advertisers to target the right local context without relying on cookies, Mobile Advertising IDs or other identifiers classified as personal identifiable information (PII). As a result, the approach is fully GDPR-compliant and respects the privacy of consumers completely.

Combined, audience data and movement data

By leveraging spatial telco data, marketers are able to better understand and reach consumers in the physical world without sacrificing data privacy - the new consumer mobility datasets work independently of any online identifier.

allow for the indexing of where certain groups will be over-represented during certain moments of the day. Put another way, the approach means advertisers can see exactly where their target audiences will be at any given time. That means more relevant Out Of Home Advertising and the regained ability to provide personalised content to mobile users



McDonald's programmatic DOOH campaign runs on Adsquare's Audiences in Motion

McDonald's Spain becomes one of the first companies in its sector to have launched a data-driven programmatic DOOH campaign. The activation was powered by Adsquare's Audiences in Motion via proprietary prebid integration with The Trade Desk. Responding to new consumer trends during the 2020 pandemic, McDonald's decided to focus on advertising its McAuto service, a Corona-save food pickup service. Only relevant digital screens were activated based on where the preselected fast food enthusiasts are showing up the most during the day leading to a successful promotion with a visitation uplift of 67% and, as a consequence, increased sales.



3. Under The Hood

Proximity Targeting in action

From the perspective of a programmatic advertiser, the approach to Proximity Targeting is not too dissimilar from any Audience Targeting. Under the surface, however, things look a whole lot different and the technical setup is far more complex.

A pre-bid enrichment API connects the advertisers' third-party data intelligence provider to their DSP. The API enables the third-party system to enrich programmatic advertising traffic with pre-built spatial segments in real-time. Advertisers can choose single data sets (e.g., places of interest like shopping centres, restaurants or gyms) or combine multiple datasets to build individual proximity segments (e.g., a catchment area of 50m around coffee places in neighbourhoods that index highly for "luxury travellers").

What's important is that the API is collocated on-premises with the DSP. This is to enable the delivery of audience segments in milliseconds to support the real-time programmatic delivery of ads. The speed of performance means that the moment a DSP receives a bid request it can check with the third-party intelligence provider whether the latitude/longitude of the anonymous device, or the digital OOH screen for that matter, qualifies for the desired geo-contextual segment - if it does, then the programmatic buyer is invited to bid.

More than half of the supply side traffic seen in bid requests comes with latitude/ longitude information that can be enriched with spatial data (51%)⁷.



Pre-Bid Enrichment

Our technology translates location data as part of any programmatic supply in real-time.

Real-time Proximity Targeting by using Spatial Data

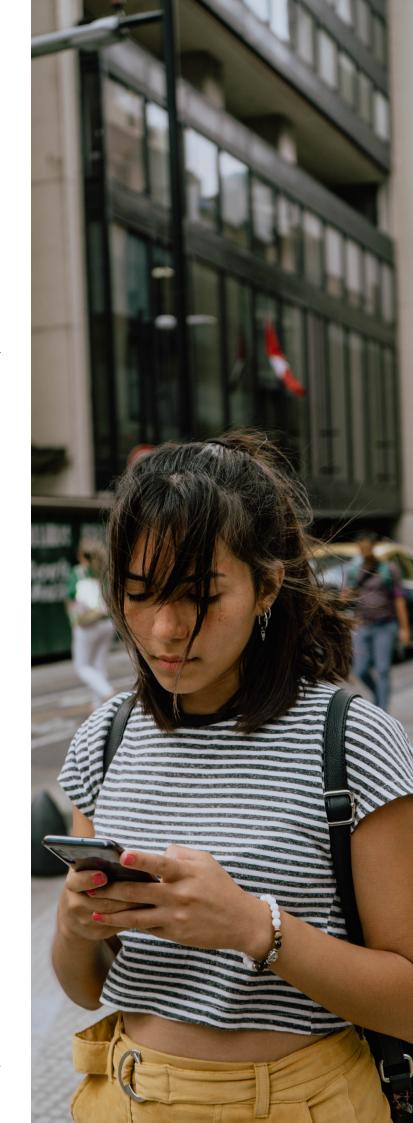
Adsquare is the only platform globally that can apply spatial data sets prebid with any leading programmatic platform.

4. Conclusion

Choosing the right partner

The key to successful location-based targeting is to work with the right data and intelligence partner. When looking for a partner, look out for the following:

- Does the partner have access to spatial, audience and movement data at global scale?
- Is the data compliant with existing Privacy Regulations?
- Do they allow you to build geo-located audience segments and activate these on a spatial level?
- Does the partner enable you to leverage future-proof mobility data, i.e. from Telcos?
- Can they calculate index values and allow you to customise these according to your needs?
- Does the partner's platform allow for the additional onboarding of custom datasets (incl. other branded data)? Can this be enabled through self-service?
- Can you seamlessly activate their data in your DSP of choice?
- Do they support high-volume, low-latency programmatic omnichannel delivery?



A new approach for a new ad ecosystem

Whatever the future holds for the digital advertising industry, one thing is clear: tracking IDs are going to play less of a role. While that will take some getting used to for an industry that has relied on them for programmatic personalisation, there will be opportunities too.

By embracing Proximity Data inclusive of spatial, audience and movement data, advertisers can once again target audiences programmatically only this time in a privacy-first, GDPR compliant manner. What's more, the approach promises to unlock the full potential of Digital Out of Home by adding an element of precise audience targeting that has until now been lacking.

The future will be different for digital advertisers, but it looks no less promising.



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Adsquare is the leading Audience and Location Intelligence Company helping brands to connect people and places in 40 countries worldwide. Our product portfolio includes Proximity Targeting, Audience Targeting, Footfall Measurement and Data-Driven Outof-Home Solutions. Founded in 2012 by Tom Laband (CEO), Sebastian Doerfel (COO) and Fritz Richter (CTO), Adsquare is headquartered in Berlin, with additional offices in New York, London, Paris, Milan, Singapore and Dusseldorf.

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