

# The positive halo of digital out of home

Anne Parsons, Peter Pynta and Dr Shaun Seixas

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Looks at the influence of the unique attributes of digital out-of-home (DOOH) sites on the way advertising is processed by measuring creative content in context.

- In an age of dynamic DOOH innovation, the sophistication of media measurement must keep pace and reflect the demands of the market.
- This investigation is the first of its type to routinely measure a certain 'halo effect' that is transferred from site to creative by a hybrid of Implicit and Neuroscience methodologies.
- DOOH sites have unique characteristics which can strongly influence the way creative is processed.
- This has significant implications in guiding an advertisers' communications objectives and investment in DOOH.

Media measurement is an ever-evolving science, given its need to keep pace with perpetual industry change and ongoing advertiser demand for meaningful consumer-centric data.

This applies across all media channels but is perhaps amplified for digital out-of-home (DOOH), given the recent and significant growth of the channel driven largely by technological advances and its historic rudimentary measurement.

Advertisers, while recognising the overall merits of the channel, would benefit from seeing a more comprehensive assessment of the impact of individual sites as a means to better predict campaign effectiveness. This is essential to positioning the DOOH channel in line with industry expectations and to meet the prevailing issues of investment confidence, transparency, independence and accountability for advertisers.

Quantifying the full impact of DOOH, while appearing to be the next logical step, also provides additional challenges. The ability to understand the contribution and effect of both media content and context on DOOH screens answers one dimension, but it does not provide the total impact of a dynamic screen.

These sites exist within complex layers of the environment, whether it's within a sprawling cityscape or within proximity to a well-known landmark, and therefore are likely to adopt some of the attributes of the environment. Understanding this relationship truly represents the next dimension in providing a more meaningful trading

currency for advertisers.

This is akin to understanding the attributes of television programmes – a concept we all recognise requires a specific and individual assessment.

For QMS Outdoor – operating in Australia’s rapidly-evolving DOOH sector – the question was obvious: do DOOH sites, like television programmes, have distinct attributes? The basis of the hypothesis was that not all sites are created equal. Sites can be quantified and differentiated on simple physical characteristics, which can be easily profiled using traditional research methods that tap into the rational cognitive processes (System 2).

However, as alluded to previously, the environments that these sites exist within are vastly different from one other and often contain elements or characteristics that cannot be easily or readily expressed. If these sites do at some level adopt some of the unique characteristics of their environments, then this provides an additional means to not only quantify these sites but could also become a key discriminator for advertisers.

This would expand the current impact of DOOH beyond the existing convention of physical dimensions or the associated technology to quantify the individuality of the panels in the context of their surrounding and different environments. It would confirm and clarify the degree of uniqueness for each site and therefore imply a distinct personality by individual site.

## **Methodology**

To test our hypothesis, we utilised a combination of both neuroimaging (Steady State Topography) and an implicit-based cognitive task (nPlicit) to measure and quantify the personality of the four DOOH sites that were initially selected for this pilot study. These methods were specifically selected because they tap into the cognitive processes that underpin nonconscious or System 1 responses.

## **nPlicit task**

To measure the intrinsic personality of a site, we employed the use of nPlicit (Neuro-Insight), an associative priming task (APT) to establish the relationship between a site and an attribute of interest (i.e. its personality).

The APT is a computer-based choice reaction time task for indirectly measuring the impact one stimulus (the Prime) has on another stimulus. In this context, the Target was an image of the site and the Prime was one of 12 attributes. A feature of the APT is its indirect nature. The Prime is not central to executing the task but modulates performance of the task – the degree of modulation providing an indicator of the strength of the relationship (or Association Strength) between the Prime and Target. Congruent Primes facilitate faster reaction times than incongruent relationships.

## **Stage 1: Measurement of DOOH site personalities**

We measured the intrinsic associations of 20 QMS DOOH sites against a set of 12 attributes. The creatives that appeared on the sites were rotated to eliminate any effects that could be driven by the creative itself. A national representative population of 9,133 participants took part in this stage of the study.

## **Stage 2: Measuring the uplift for advertisers.**

This stage of the study was designed to investigate whether there is any benefit for advertisers who advertise on sites with known ‘personalities’ as determined by Stage 1. A representative sample of 380 participants were recruited to participate in the study which was separated into three distinct phases.

The first phase involved participants completing a PrenPlicit Task to establish the baseline measure of the creative’s (advertisement) association to same set of attributes used in Stage 1. Creatives from FMCG, retail, insurance and financial services categories were used for this stage of the study. Participants then viewed a short first-person journey shot from the perspective of the driver, where during the journey they were exposed to, contained the combination of the site and the creative in-situ – as it would naturally be experienced.

In this particular stage of testing, participants had their brain activity measured using Steady State Topography. Following this brief journey, participants again completed another nPlicit task to measure any transient changes in the creatives’ attribute associations as a function of experiencing the ‘creative in context’ (See Figure 1 for visual representation of design).

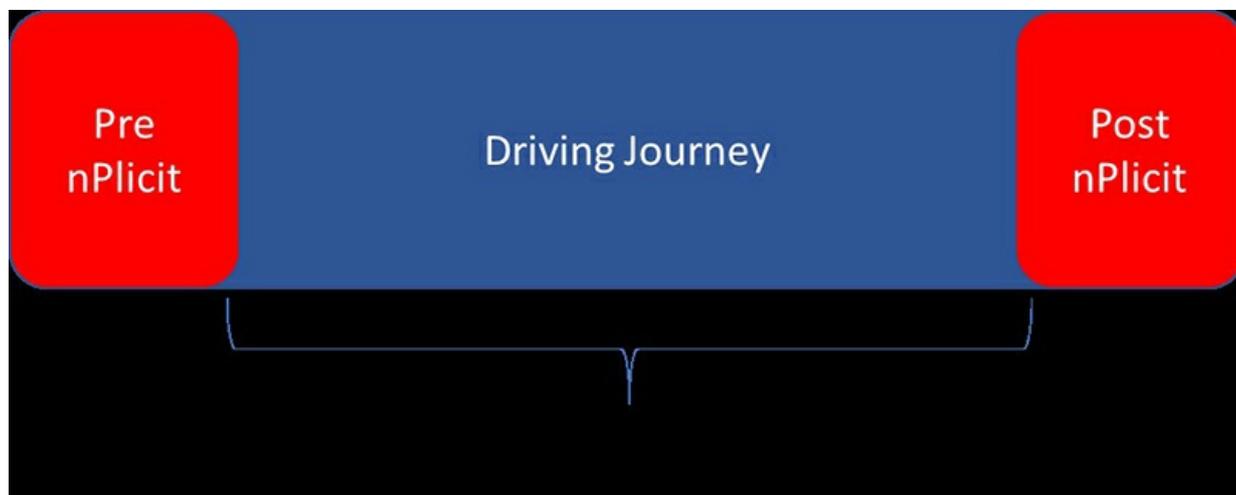


Figure 1: Visual representation of design used in Stage 2

## Results

Stage 1 showed that each of the 20 sites tested had a unique mix of attributes that could be rated on a scale from Average to Exceptional (see Figure 2 for example).

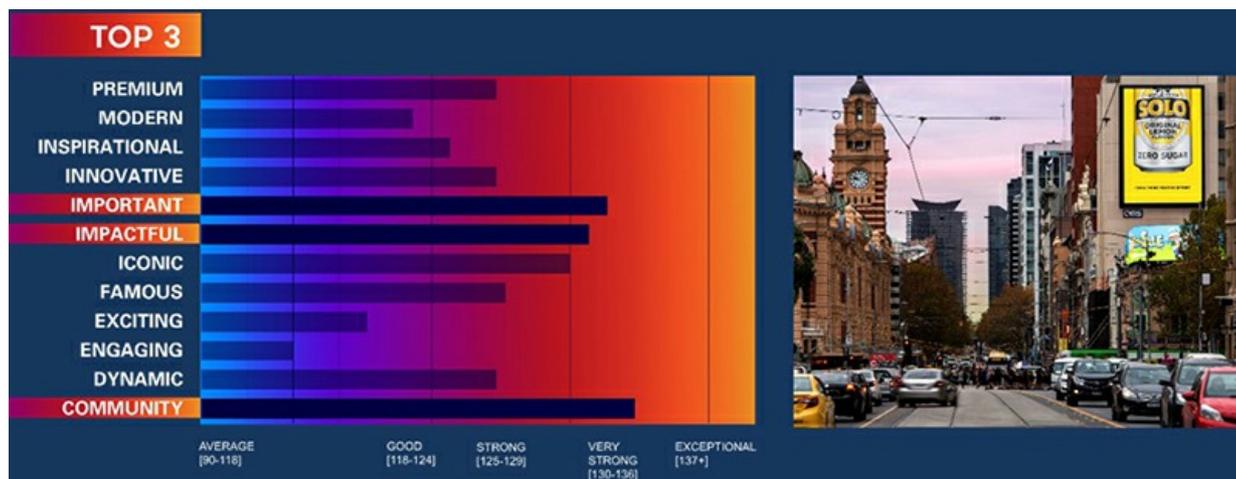


Figure 2: Example of attribute distribution on a QMS site

For Stage 2 we initially looked at the pre to post difference in nPlicit scores and ranked participants in terms of greatest change (growth, increased association) to smallest change (no or negative growth, weakened association). The neuro data was then re-analysed by these two groups to help identify what moment, if any, along the journey was responsible for the changes in the association between the creative and the set of attributes.

The neuro time series analysis revealed the moment of exposure – the moment when the creative was seen on the site in-situ – to be the primary driver in attribute growth for the creative as measured by differences in SST latency (see Figure 3 for example). This was the case in all four examples we tested and was highly significant (C.I – 95% [-0.11, 0.11]).

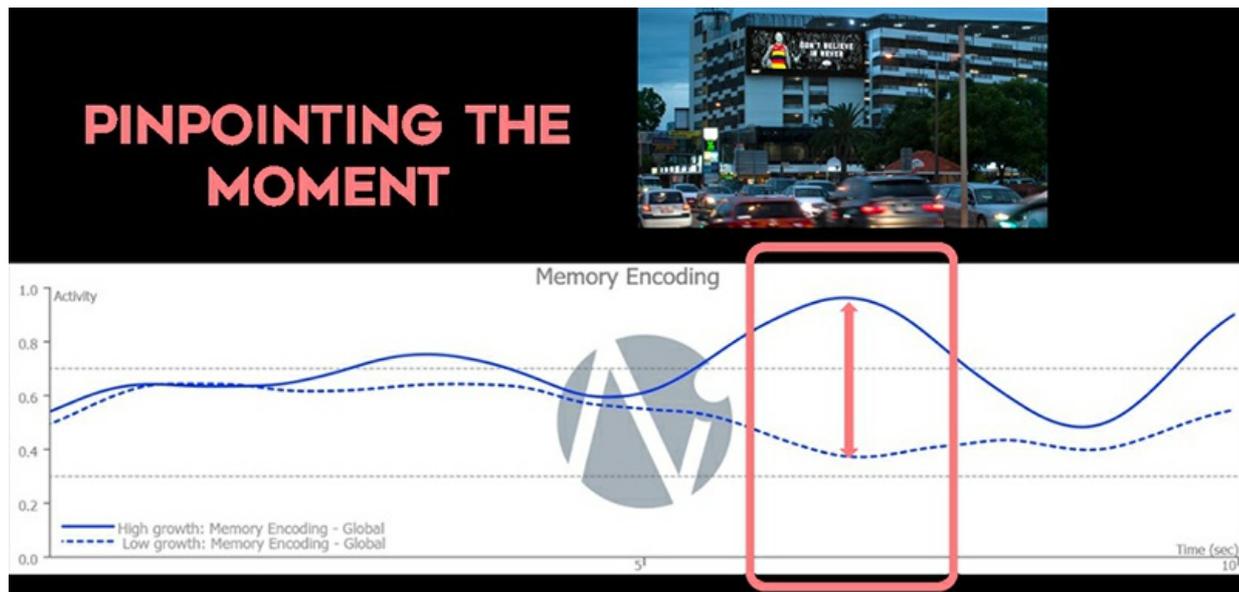


Figure 3: Memory encoding responses of High Growth and Low Growth groups

Given the above results, we sought to further examine this relationship by testing a further six sites in different states (NSW, QLD, WA) using the same approach above. In the five or six examples, the brands we tested increased their association on at least one attribute. In the one case where we didn't see a shift in association strength, the attributes didn't change from pre to post measurement. This pattern speaks to the maintenance of attributes, which provides its own element of importance in an advertising context quite apart from growth on a particular attribute.

## Summary

Beyond the age-old reach and frequency figures, which were so essential in a pre-digital media world, it is now possible to purchase DOOH sites based on the attributes they communicate and how they can either maintain or grow those attributes for a brand. This quantification of individual site impact provides a new and complementary level of understanding of individual site value – enabling an advertiser to have both greater knowledge and therefore greater control over the consumer impact of a DOOH campaign.

With a combination of an implicit technique (known as nPlicit) and the technology of Neuro-Insights, Steady State Topography (SST) measurement, individual DOOH sites were personified and the resulting influence these QMS sites have on brands were quantified. This proves the hypothesis of different attributes evident in different sites and the related different 'influence' they can have on a brand message. In other words, if a brand

objective is, for example, to increase the attribute of “community” QMS can provide DOOH sites that inherently capture this “personality”, reinforcing or even amplifying the creative message for this brand attribute.

Finally, where once the advertising community may have assumed that media context provided an influence over the way communications is processed, this work provides the scientific evidence that the idea of shared equity does indeed exist between a DOOH media environment and creative impact. These findings break new ground in the evolution of highly actionable media briefing, buying and selling practices.

## **Strategic implications**

1. Demonstrates how routine metrics can be integrated through the briefing, buying and selling process.
2. Provides the ability to quantify DOOH sites for the multi-dimensional impact they can deliver.
3. Enables the “measurement” of DOOH to be appropriately comparable to other media channel options and encourages the relevant discussion on site selection.
4. Creates a framework that can be further developed over time and as the DOOH channel expands.
5. Recognises the inherent effect of creative to maximise the dual power of content and context.
6. Provides advertisers with a more sophisticated and “real world” assessment of DOOH sites to enable an alignment of media with communications objectives – driving better investment outcomes.
7. Easily replicable in all markets and geographies.

## **About the authors**

Anne Parsons  
Anne Parsons

Peter Pynta  
CEO, APAC, Neuro-Insight

Dr Shaun Seixas  
PhD – Director of Research, Neuro-Insight

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Americas: 2233 Wisconsin Ave NW, Suite 535, Washington, DC 20007, United States - Tel: +1 202 778 0680

APAC: OUE Downtown 1, #44-03, 6 Shenton Way, 068809, Singapore - Tel: +65 3157 6200

EMEA: 33 Kingsway, London, WC2B 6UF, United Kingdom - Tel: +44 (0)20 7467 8100

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