

CONTEXT UNCUT

WHY IT'S TIME TO LOOK BEYOND SILOS IN THE MODERN AGE OF MEDIA

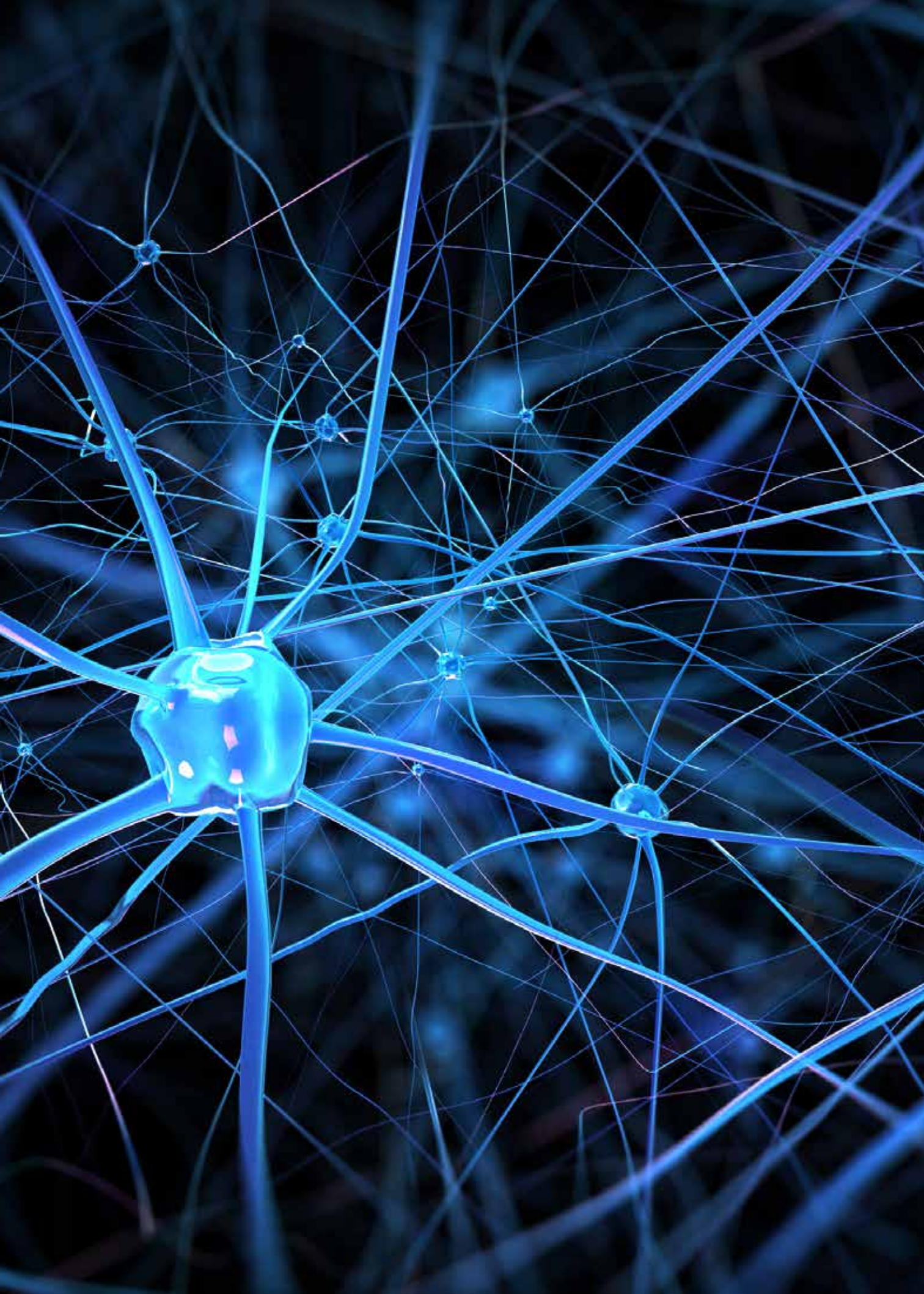


NEURO-INSIGHT

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Executive summary

Thanks to developments in media, technology and subsequent changes in consumer behaviour, advertising consumption is no longer the linear affair it once was. Instead, there's now a plethora of new variables to consider, that all help shape our responses to advertising – more often than not, in ways we're not consciously aware of.

In addition, with the industry asking more and more questions about brand safety and return on investment, it's never been more important to know why advertising is successful, and how to maximise this success at every turn.

Taking both of these factors into consideration, it's clear that, when it comes to measuring campaign success today, advertisers need to use metrics that can take the impact of these variables into account. Quantitative data like click-through rates or impacts may have once been a good barometer for measuring engagement, but this only tells a small part of the story. Moving forward, instead of just taking the quantity of these impressions into account, we need to consider the quality of the impacts as well.

Neuro research – with its ability to take us right inside the inner workings of people's minds – is one such means to achieve this. In this report, Neuro-Insight will draw from decades of neuroscience expertise to demonstrate how context – including the editorial context, platform, device, and even physical environment in which a person consumes advertising - can impact its effectiveness. We will further demonstrate how advertisers can utilise the impact of context in today's multi-media world to their advantage, and ultimately amplify advertising success in an increasingly complex landscape.

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It's time to take a look at the whole picture

Media has always been a fast-moving industry, but at no point has this been so dramatically felt than within the last decade.

Take TV, for example. TV is the platform most commonly coveted by advertisers, so we tend to be sensitive to the suggestion that traditional TV viewing is on its way out. But the fact is, traditional TV viewing is declining, with Britons watching 13 minutes less TV last year on average than they did in 2017, for example¹.

Instead, time-poor consumers are turning to OTT and on-demand services, lured by sheer convenience and, in Netflix's case, the promise of uninterrupted content. And with Disney, Apple, BBC and ITV launching rival offerings this year, it's clear this shift is here to stay.

Online editorial, meanwhile, has overtaken print media at such a rate it's already undergoing a "renaissance" amongst the youngest members of society, with digitally native Gen Z-ers² actively reaching for print newspapers and magazines, just as their CD spinning predecessors collected vinyl records.

And developments in mobile, audio, social media and Digital Out-of-Home (DOOH) media means a huge portion of our media consumption now takes place outside—as well as inside—the home.

As a result, competition for people's attention is at an all-time high, and brands are struggling to understand how best to cut through the noise and make themselves heard. Which is why there's never been a better time to investigate how these factors can decrease or intensify people's responses to advertising.

This report will use neuroscience principles and the outcomes of specific studies to provide the answers that conscious research and big data have not yet been able to about the impact of context – proving how everything from the device we're using, to the activities we're doing, can shape the extent to which advertising is effective.

Our findings suggest that marketers and agencies who overlook the importance of context could miss out on an opportunity to turbo-charge the effectiveness of their campaigns.



¹ Ofcom, Media Nations, 2018
https://www.ofcom.org.uk/_data/assets/pdf_file/0014/116006/media-nations-2018-uk.pdf

² Generation Z (or Gen Z) is the demographic cohort after the Millennials. Most of Generation Z have used the Internet since a young age and are comfortable with technology and social media. They were born between 1997 and 2015
<https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/>

Why neuroscience?



Brands don't want to waste their money on advertising that doesn't work. But there's still a huge lack of understanding around what truly makes or breaks campaigns.

For years, brands have relied on conventional market research techniques like focus groups and surveys to work this out. But what these methods don't recognise is that around 95%³ of our decision-making occurs in the subconscious. The magic of neuro is that it allows us to uncover things that humans do not have the ability to articulate, or things we do not even know consciously are impacting us, but which are still an inherently important part of decision-making. In the modern age of media, this is crucial, as there are so many more factors affecting how we experience advertising.

We use a variety of metrics when measuring brain responses, but the most important one for marketers is something we call long-term memory encoding (LTME). Measuring LTME helps us work out how people's brains record experiences of the world. It helps us make sense and meaning of what the person is seeing and hearing - and perhaps most importantly, how it correlates to future decision-making and purchase behaviour in consumers.

Put simply, if the McDonald's ad you see on TV encodes into memory, for instance, this memory will be triggered next time you walk past a McDonald's restaurant, making you more pre-disposed to walk in and buy a Big Mac. Equally, if something doesn't get encoded into memory, it simply isn't there and can't possibly affect our future actions.

³ Gerald Zaltman, *How Customers Think*, 2003

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The Neuro-Insight methodology

Neuro-marketing is a fantastic but still relatively new branch of marketing. Whilst neuroscience has already made waves in the medical space, Neuro-Insight is one of few companies that can use it in a truly actionable way for commercial purposes – which is great news for advertisers.

Of the few neuro-marketing and neuroanalytics firms selling brain measurements at the moment, most rely on EEG technology (or Electroencephalography). But the electrical signals measured through EEG must still be translated into scientifically-validated indicators of consumer behaviour – something many providers can't do.

For this reason, at Neuro-Insight, we use a unique, patented method, called Steady-State Topography, or SST. This is much better suited than EEG to commercial market research, for several reasons.

First, it tracks subconscious responses in an environment that reflects the way in which content is normally consumed, with studies carried out in a normal room rather than a hospital or lab environment.

Not only this, but because of the leading-edge technology, there is an unusually low level of “noise” in our data, compared to conventional methods. That means we

can confidently report on results based on respondents viewing input material only once, instead of multiple times.

And finally, we use large sample quantities of at least 50 people for each study. Due to its higher cost, sample sizes for neuro and biometric research are often much lower than this. But the SST methodology allows us to create robust and properly representative research quickly and cost-effectively - which, given current debates around quality of samples and robustness of data in the research world, is of the utmost importance.

HOW IT WORKS

Study respondents are pre-recruited and convened in groups of eight at the research location. They are given an introduction to the methodology and are then fitted with visors and headsets that pick up electrical responses in the brain, taking second by second readings from 20 felt sensors.

We generally take readings for around 30 minutes whilst people engage with study content. Participants are not told specifically what the research is about - they are simply told that we are interested in their response to viewing content, or carrying out a task, and that they should just engage with this as they would do normally.

WHAT IT MEASURES

By identifying activity from areas in the brain associated with specific cognitive processes, we are able to report on six key metrics:



1. Long-term memory encoding

This refers not to existing memories, but what is being encoded, or stored, into long-term memory at the point when it is being laid down. “Long-term” means anything that is stored in the brain for more than a few minutes. At Neuro-Insight, we call 0.7 our ‘magic number’ because it’s at that point or above that brand messages encode into memory.



2. Engagement

Engagement is an indicator of how involved people are with the presented stimulus and is generally triggered by material that is of personal relevance.



3. Approach / withdrawal

This refers to the “direction” of the emotion being experienced – the terms broadly equate to like and dislike. If you show strong approach, it suggests you want to move towards it because you like it, whereas the opposite is true for withdrawal.



4. Emotional intensity

Emotional intensity relates to the strength of emotion being experienced. It is the extent to which an individual is energised, captivated or engrossed by the stimulus and plays an important role in what eventually ends up being committed to memory.



5. Visual attention

As it sounds – a measure of how closely participants are paying attention to what they are watching, providing an indication of the level of interest. What’s interesting is that, when it comes to visual attention, the left and right sides of the brain do different things.

The left side comes into action when you’re looking at specific details, like text for instance. By contrast, if you’re appreciating a sunset, or recognising someone’s facial expression, it’s the right side doing that job. So, we can measure on a second by second basis the level of visual attention to detail, and to global features at the same time.



6. General attention/desirability

The parietal sites that we refer to as general attention in advertising research, are also termed ‘subjective desirability’ when referring to the right hemisphere site. Desirability is a measure associated with choice, selection and wanting to reach out to something in the visual field.

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What the data show us

So, now we know what neuroscience can reveal about advertising effectiveness, let's take a closer look at how this can change according to certain contextual factors.

PLATFORMS

With so many online publishers operating now, it seems inevitable that the platform upon which we're consuming content is going to impact our responses to digital ads; and our research has found that this is the case.

AOP / Newsworks

According to a study we ran with Newsworks and the Association for Online Publishing (AOP), for instance, we discovered that premium editorial sites outperform social media for long-term memory encoding.

To work this out, we measured participants' brain responses to identical ads in a premium editorial context and a social media context.

The study showed that left brain memory encoding, which processes words and detail, is 42% stronger when people view ads on premium editorial sites than when they see the same ads on social media sites. Right brain memory encoding (more emotional and global aspects of processing) is strong for both premium sites and social media, but ads on premium sites generate a 9% stronger response.

This shows that the quality of the advertising platforms we're using matters. So even if you believe more people will see your ads on social media, depending on the campaign, that might not be the best place to spend your money.

Sources:
Newsworks, Neuro-Insight and AOP

FIGURE 1 | CONTEXT MATTERS RESEARCH

Ads perform better in a premium editorial environment

Neuroscience demonstrates that the same ads stimulate very different brain responses, depending on where they are placed. Premium editorial contexts create stronger engagement, higher emotional intensity and greater long-term memory encoding, which is proven to correlate with decision-making and purchase behaviour.

Engagement

(personal relevance)

50%

higher on premium editorial sites than during general free browsing

Left brain long-term memory encoding

(words and detail)

21%

stronger on premium sites than during general free browsing

42%

stronger on premium sites than on social media

Right brain long-term memory encoding

(emotional/global features)

13%

stronger on premium sites than during general free browsing

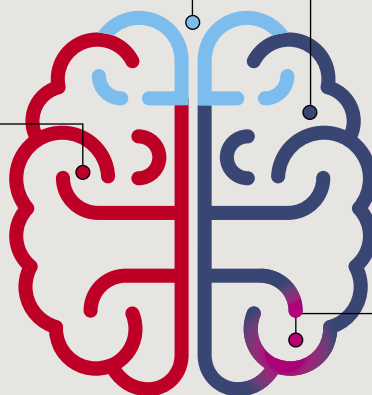
9%

stronger on premium sites than on social media

Emotional intensity

25%

higher on premium sites than during general free browsing



EDITORIAL CONTEXT

Every medium offers editorial effects and there is a lot of existing research⁴ that explores how these add value to advertising communication. But until now, we've not really explored how this works from the brain's perspective.

Newsworks

A study we conducted with Newsworks looked into the impact that news stories can have on advertising – according to how 'hard' or 'soft' they were (a story about politics might be 'hard', in this context, while a story about celebrity gossip might be 'soft').

Brand safety is a big concern for advertisers, with many spending huge sums of money on tools like whitelists and blacklists to help protect brands from online harm. In the same vein, there have been concerns raised that negative news can have a detrimental effect on the advertising content shown within that context.

But this study showed that ads which appear around hard news stories on news brand sites elicit more, and higher levels of memory encoding and emotional intensity than ads in soft news stories – and that's without

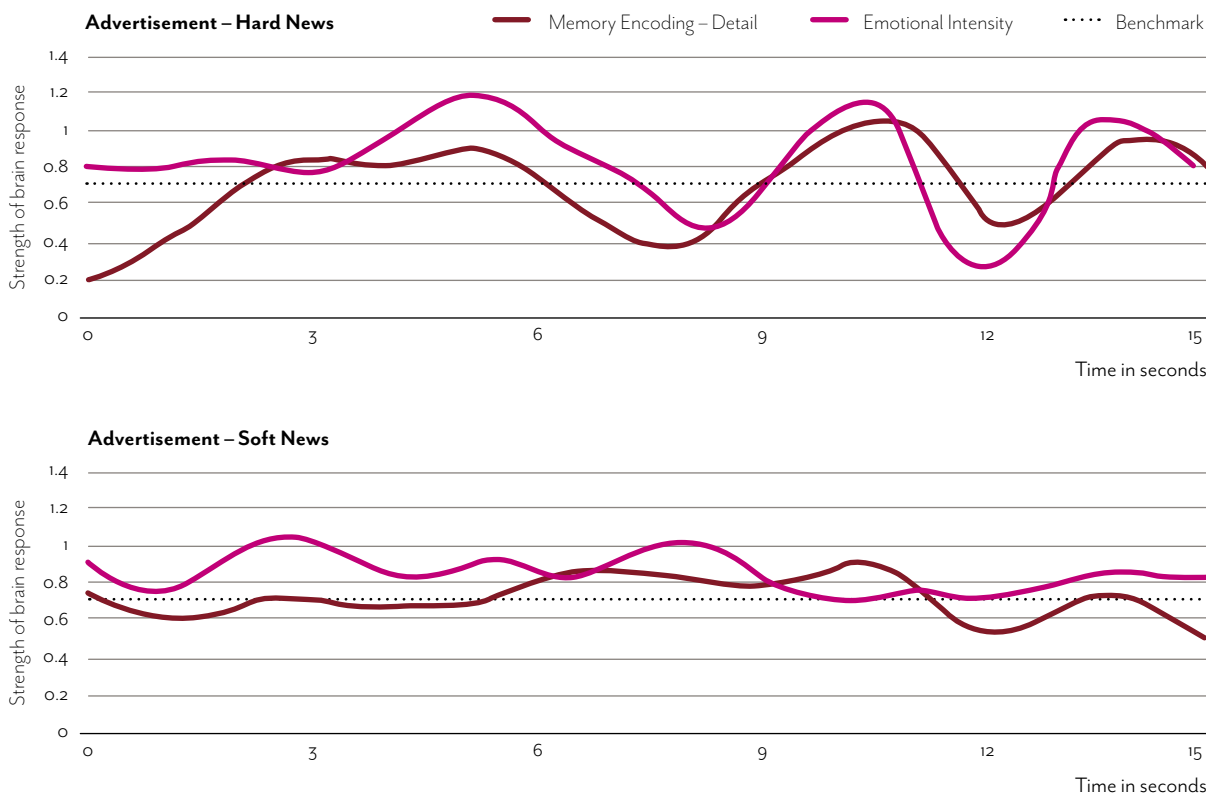
necessarily eliciting a negative emotional response on the advertising content.

This is a good example of why we should never underestimate how people are going to respond to the ads they see, and that sometimes, the most consciously intuitive link isn't necessarily the right one.

FIGURE 2 THE HARD NEWS PROJECT

The hard news context elicits higher levels of memory and emotion

Sources:
Newsworks and Neuro-Insight



4 WARC, Impact of Media Context on Advertising Memory: A Meta-Analysis of Advertising Effectiveness, 2019. <https://www.warc.com/content/paywall/article/jar/impact-of-media-context-on-advertising-memory-a-metaanalysis-of-advertising-effectiveness/121632>

ENVIRONMENTAL CONTEXT

Mobile technology and improved wi-fi services – particularly in cities – is enabling the consumption of more and more content on the go. So, another important factor to consider when it comes to context, is the physical situation of the consumer when they're seeing adverts.

Radiocentre

Recent figures from RAJAR, the official body for measuring radio audiences in the UK, suggest that as many as 40% of us listen to the radio in the car or during our commute to work, for instance⁵. This is a factor that has led many brands and advertisers to underestimate its power⁶ as an advertising channel, under the

assumption that people don't absorb information from audio ads due to the tendency to listen while doing other things.

To put this to the test, we partnered with Radiocentre to investigate whether playing ads to people at relevant moments in their day can enhance advertising engagement and memorability with radio advertising.

This involved asking people to conduct common tasks such as cooking, exercising, cleaning, working (checking e-mail), and even a simulated driving experience, while listening to a number of radio ads - some of which were relevant to the tasks, and some of which were not.

Fascinatingly, when the respondents heard ads playing in a situationally relevant context – such as when those doing the driving task heard an ad for Highways England - their brains elicited much higher levels of engagement (personal relevance) and left-brain memory encoding, than those who heard the same ad whilst carrying out an unrelated task.

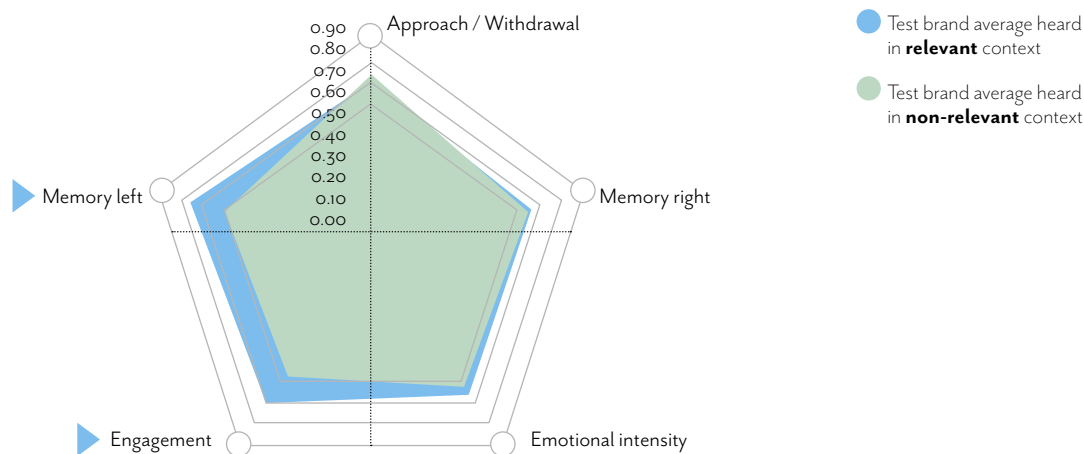
The reason for this is because whilst they may not have consciously been paying "attention" to the ads, because they were relevant to what they were doing, their brains still encoded the information implicitly – reiterating the fact that what we may consciously think we are paying attention to, does not always match with what's going on in our subconscious.

FIGURE 3 HEAR AND NOW

Situational relevant ads heard in relevant and non-relevant contexts

Average levels of brain response across all six ads

Sources:
Radiocentre and Neuro-Insight



5 RAJAR, All radio listening, Q2 2019.
https://www.rajar.co.uk/docs/news/RAJAR_DataRelease_InfographicQ22019.pdf

6 RadioCentre and Ubiquity, *Re-evaluating Media*, 2018.
<https://www.radiocentre.org/re-evaluating-media/wp-content/uploads/2018/03/Ebiquity-Radiocentre-report-A4-web-singles-1.pdf>



Ads that were creatively tailored to the task were even more successful. For example, when exercise was explicitly mentioned in a Currys ad for the Apple Watch, there was an immediate and sharp rise in memory encoding amongst those completing the exercise task, whereas response fell among those who heard the ad when engaged in a non-related task. This shows it's possible to augment the impact of relevance further with the right creative strategy.

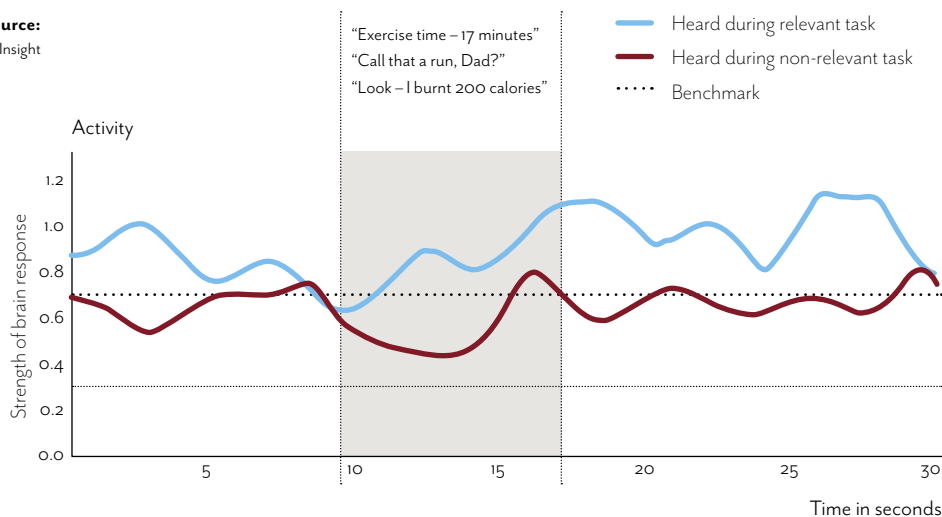
FIGURE 4



Currys Apple Watch Ad Exercise

Timeline of left brain memory encoding response

Source:
Radiocentre and Neuro-Insight



Leveraging the media hierarchy

With so many resources available to us – all of which impact the brain in slightly different ways – it's surely too much to ask for them to function together in harmony, right? Wrong. In fact, our research has found that these factions often have more power when they overlap, thanks to their priming abilities.

Many advertisers fear 'Second Screening' for instance, because they worry that using more than one device at once can distract consumers from absorbing the advertising messages on each device properly.

But studies we conducted with ITV, and Channel 7 in Australia rebuke this suggestion.

ITV

The study we ran for ITV demonstrated that interaction with apps on our phones whilst watching a relevant channel or TV show can heighten responses to TV advertising, in fact.

To work this out, we recruited a sample of 107 respondents – half of which used the Britain's Got Talent app whilst viewing the show, and half of which didn't. The two groups were matched according to age and gender, and fieldwork took place during live shows of Britain's Got Talent, for a total duration of a week. Brain readings were taken from both app and non-app users for each show, during specific moments of the show as well as at times of app usage.

Interestingly, people who used the app showed a stronger emotional and memory response to the programme. But more importantly for advertisers, this effect also transferred into the ad breaks, with app users shown to have a stronger response across all neuroscience metrics.

Source:
Neuro-Insight and ITV

FIGURE 5 | SECOND SCREEN PROJECT

On average, across all brain measures, app users' responses to on-air idents were

25%

higher than those of non-app users

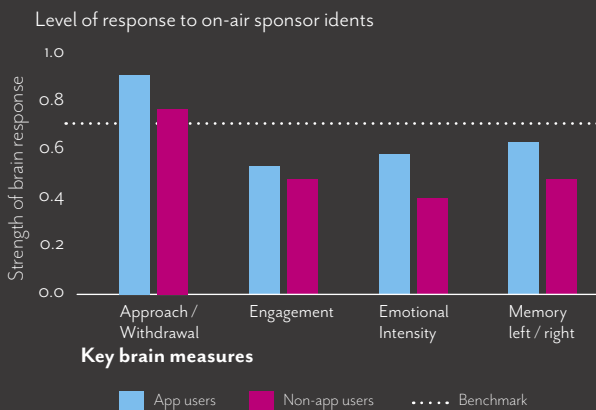
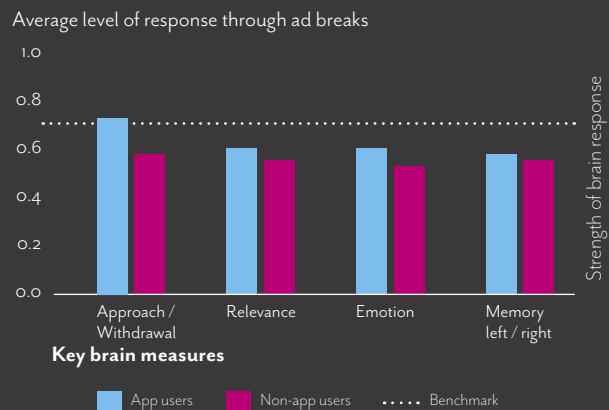


FIGURE 6

Brain response to ad breaks on TV, averaged across all metrics were

13%

higher for app users than for non-app users



itv

CHANNEL 7, AUSTRALIA

In a similar study for Channel 7 in Australia, we looked at whether using social media at the same time as watching TV can affect responses to TV advertising.

For this study, we asked 36 viewers (who were fans of the show) to watch consecutive episodes of The X-Factor on four different nights. Their brain activity was constantly monitored during the show, and any instances of social media behaviour via Twitter were monitored and timed.

Far from reducing the impact of the social campaign, the interaction on social media on their phones (in this case, Twitter) during the programme was associated with an extremely high peak in engagement.

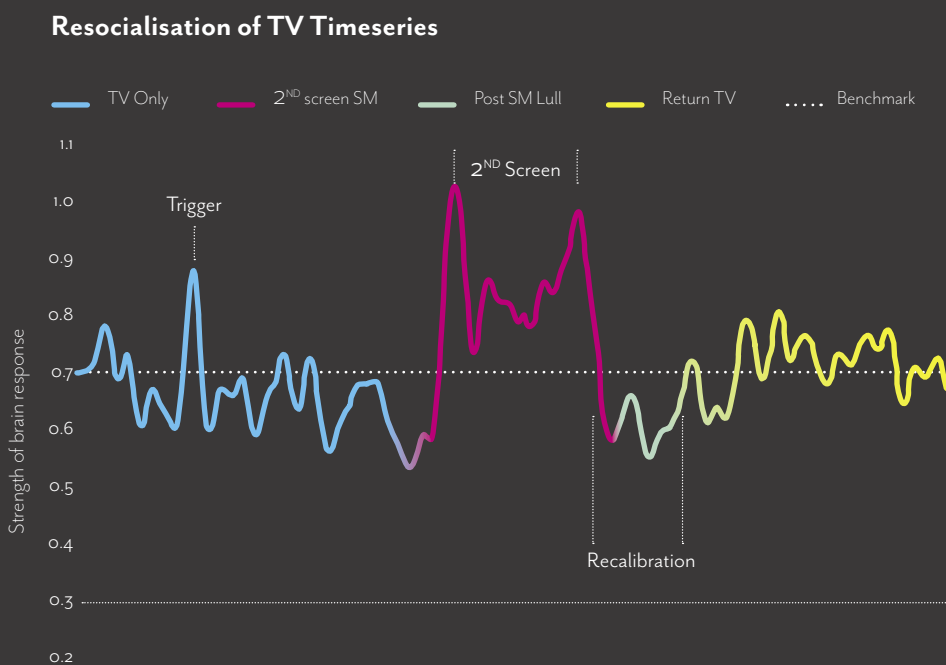
Immediately after the interaction there was a slight dip in response as people “re-entered” the programme, but thereafter engagement rose again when people returned to TV viewing after interacting with their mobile device (Figure 7). This effect ultimately led to a 26% increase in engagement over the course of the programme.

So, it seems interacting with another relevant platform at the same time as watching television can be a highly complementary pairing when it comes to driving engagement with TV advertising.

This has a key implication for broadcasters, who can use social media as an opportunity to build loyalty and drive rating growth.

Source:
Neuro-Insight Australia
and Channel 7

FIGURE 7 | CHANNEL 7: THE POWER OF SOCIAL TELEVISION



OCEAN OUTDOOR

A long-term project we conducted with Ocean Outdoor, on the priming effect of outdoor media on other media (primarily online communication), showed a similarly positive pattern.

For this, levels of memory encoding were monitored in 192 respondents who had been unknowingly primed by exposure to either TV or DOOH advertising. The group was divided into two, half of whom walked past a full-motion DOOH display and half watched TV. These groups were then divided again, with half seeing an ad for Peugeot and half seeing an ad for Lynx.

Both sets of respondents were then given a selection of magazines to read and were asked to browse a selection of websites. Both media contained ads for Peugeot and Lynx.

When analysing the data, we found the group that saw a DOOH ad first demonstrated 36% higher levels of memory encoding, in response to ads on mobile websites regardless of whether they had been shown the Lynx or Peugeot ads. Conversely, those who saw a TV ad responded more strongly to magazines as a secondary medium (11% higher).

This shows the importance of the congruence of the environment. TV and magazines are consumed in a similar way (a more sedentary state), whereas DOOH and mobile are more “on the go” and these results indicate that the more closely matched environment leads to a more meaningful priming effect.



ROYAL MAIL

In previous research with Market Reach (Royal Mail) we looked at the priming impact of direct mail on TV and e-mail. But, given that many brands are now questioning the value of physical mail over putting money into advertising online, our most recent study went a step further by looking at the relationship between mail and social media.

We had previously seen that mail can in fact positively prime both e-mail and TV. Interestingly, in this study, the results showed that mail has a powerful impact on long-term memory encoding for social media advertising as well, with responses to social media advertising proving to be 44% stronger when people saw the same campaign via the mail first.

Part of the reason for this is because mail has a powerful impact on engagement and personal relevance, provoking stronger levels of memory encoding than both e-mail and social media advertising (as shown in Figure 8). Interestingly, visual attention (stimulation of the visual cortex) is higher before mail is seen, but this is a superficial effect. After priming, the visual attention is lower – but the information isn’t just being seen, its being encoded in memory – which is key to driving future action for brands.

The research also showed that not only are brain responses higher, but this priming impact affects behaviour as well – when primed by mail, respondents spent 30% longer looking at social ads. The time spent looking at

social ads increased from an average of 3.3 seconds, for those who had not seen mail, to 4.3 seconds for those who had seen mail first.

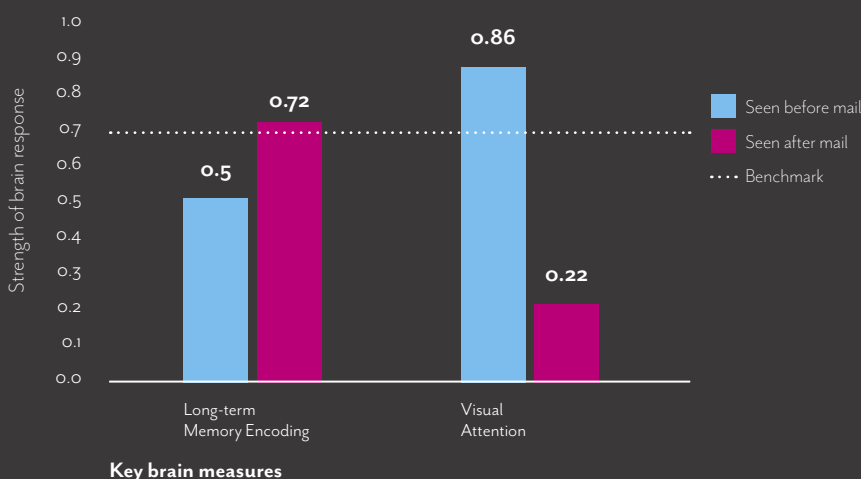
This suggests that mail sent out prior to the run of an e-mail or social media campaign could enhance its impact, by priming the viewer to associate more strongly with the ads – ultimately driving a better response to the advertising on these channels.

Source:
Neuro-Insight and Royal Mail

FIGURE 8 MAIL CUTS THROUGH



Brain response to social advertising in the neuroscience study



TESTIMONIAL**Neil Taylor**

Lead Data Strategist

Channel 4

Last year, we ran a world-first trial for AI-driven contextual targeting on linear TV, using a custom-built product called Contextual Moments.

Previous Channel 4 research demonstrated the positive impact of contextual targeting – a technique which involves placing ads in breaks that relate to a programme’s content. But, given how incredibly complex an operation this was - from an algorithmic, operational and advertising effectiveness perspective - we knew that if we wanted to prove the value of the product to advertisers, we’d need sophisticated proof that contextually targeted TV ads are more impactful.

Neuroscience is interesting because it allows us to look right into the brain and identify why people react to certain stimulus, before they’re even conscious of this themselves, making it a unique method for measuring advertising effectiveness and therefore a natural choice for this trial. With such a critical role to play, we selected Neuro-Insight, a market-leader in neuro-marketing research, to be our partner.

For the study, we placed hundreds of ads across three categories – food, hot drinks and mobile phones. We then structured them in a rotating format across three sample groups. This means each respondent saw a mixture of contextually and non-contextually targeted ads, which enabled us to compare the results across these groups easily.

Upon examining the results, we found that average levels of memory encoding were stronger for the ads when primed by the contextually relevant TV programme. This is vital, as memory encoding has been shown to help drive brand recall and future action in consumers.

Across all contextually placed ads, the first branding moment was also associated with the strongest average levels of left-brain memory encoding, indicating that the branding detail was being strongly encoded into memory. This is vital for TV advertising, as long-term brand building is a core part of our USP.

Meanwhile, Neuro-Insight was able to relate predicted econometric performance back to contextual advertising, which gave us a very powerful final message to share with advertisers on the value of the Contextual Moments project.

So, it seems that, by thinking more critically about the relationship between editorial content and ad content, and shaping media plans accordingly, it’s possible to significantly boost brand associations, brand recall, and ultimately improve the overall efficiency of brand building TV campaigns.



interior

night

couple

romance

laughter

fashion

7

Building the right strategy

So, we now know that the platform, device, editorial and physical environment in which people consume advertising, all have an impact on how well we respond to it.

And as time goes by and technology advances, the ways in which consumers enjoy content is only going to become extensive and advanced.

The good news is that, as we've demonstrated, context need not be something to fear. In fact, it can dramatically strengthen modern media campaigns, if used in the right way.

But in order to leverage context to the best of its ability, we first need to remove the guesswork and get straight to the point about what makes messages successful to consumers (or otherwise). That means using metrics that allow us to look right inside the subconscious mind – only then can we get the answers we truly need for effective communications that make real impact.





Credits

AOP, Newsworks, Radiocentre, ITV, Channel 7 Australia,
Ocean Outdoor, Royal Mail and Channel 4

For more information about how
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