



Yahoo! The Power of Relevance

The Biometric Impact of targeted Advertising

Digital marketers continue to experiment with the latest advancements in targeting to help them reach the right audience at the right time with the right message. As marketers navigate the increasingly complex digital marketing landscape, it's important to understand which targeting techniques are most impactful and why. Using biometric and eye-tracking measures, Yahoo! unveiled surprising results about consumers' non-conscious reactions to online display advertising across different targeting techniques.

Methodology

Yahoo! teamed with Innerscope Research to examine the emotional and cognitive responses of 60 people to online advertising (these subjects included a mix of males and females aged between 25 - 49 years). Each participant, within a laboratory environment, was presented with 12 different 'Yahoo! content' plus 'display ad' exposure scenarios totaling 720 different exposure scenarios.

This study design uncovers the non-conscious impact of ads (delivered with either personal relevancy, contextual relevancy or both) and does so by monitoring biometric responses to ad exposure under these various 'relevancy'

scenarios. These biometrics measure automatic human responses such as heart rate, skin conductance, respiration, kinesthetic differences, and eye tracking.

Terms to Remember

- **Cognitive Engagement:** Refers to the level of information processing when exposed to stimuli, measured by pupil dilation and blink rate
- **Personal Relevance:** Targeted ads based on a consumer's known interests and reported preferences (e.g. Behavioral Targeting)
- **Contextual Relevance:** Targeted ads that are relevant to the webpage content surrounding the ad itself (e.g. Contextual Targeting)
- **Notice:** To see a stimulus (e.g. an ad)
- **Fixation Time:** The length of time someone looks at stimuli
- **Time to Fixation:** The amount of time it takes someone to first fixate on an ad
- **Emotional Resonance:** A deviation from baseline emotional levels, as measured by the following biometric data: skin conductance, heart rate, respiration and movement

Key Findings

The same ad can elicit a very different type of biometric response, depending on whether the ad is personally or contextually relevant.

1. Personally Relevant Ads (e.g. Behaviorally targeted advertising):

- People spend 25% more time fixating on ads that are personally relevant to them versus those that are not. This fixation is related to the potential for a stronger emotional and cognitive response to the ad.
- Pupil dilation increases by 27%, which is a strong indicator of increased cognition of the ad and means that people are processing the key messages to a greater extent.

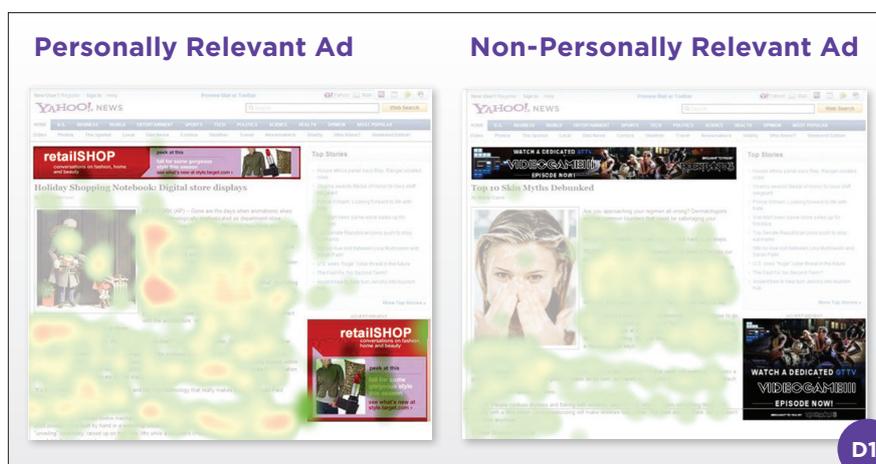
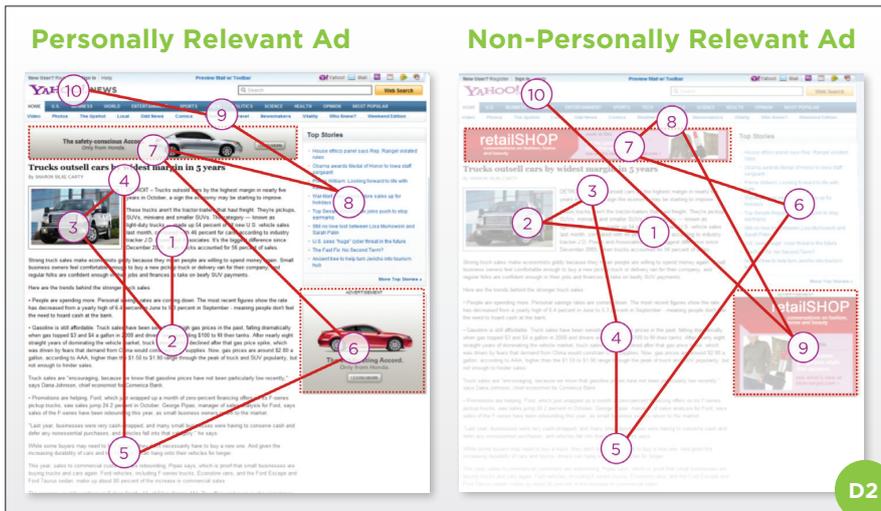


DIAGRAM 1 | This example displays a heat map, showing greater fixation on the personally relevant ad compared to one that is not:



2. Contextually Relevant Ads (e.g. Contextually Targeted Ads):

- Time to first fixation increases by 15% when ads are contextually relevant. This increases the chances that the ad will be stored in long-term-memory and ultimately leads to higher recall.
- Contextually relevant ads elicit an emotional response that's almost twice as high as those without.

DIAGRAM 2 | This example displays a 'Gaze Plot' depicting the faster fixation time for contextually relevant display advertising.

3. Personally + Contextually Relevant Ads (e.g. Contextually and Behaviorally Targeted Ads):

- When an ad has both contextual and personal relevance its impact is even more powerful, producing stronger emotional response than either condition alone.
- In this case, pupil dilation increased by an unprecedented 40% indicating an impressively high level of cognition of the ad.

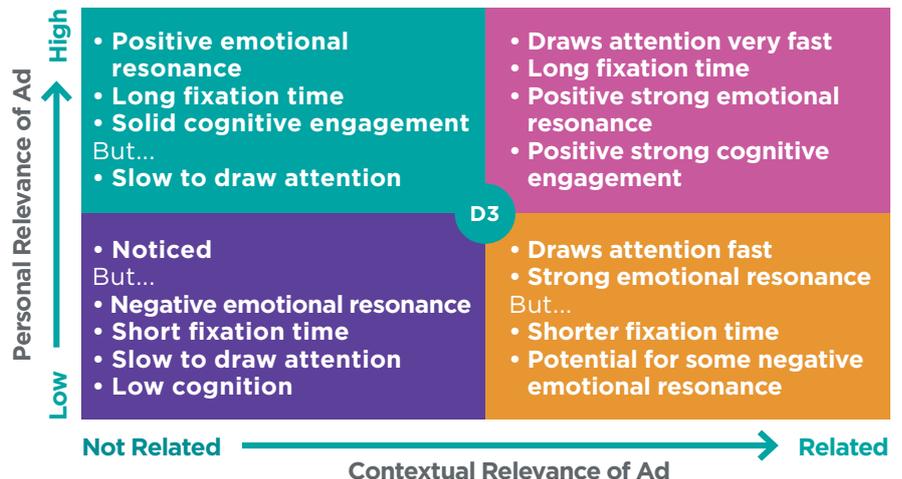


DIAGRAM 3 | This example is a summary matrix of the strengths and weaknesses of various relevancy scenarios.

Conclusion

Each targeting technique delivers a unique value to the experience of online display advertising, thereby delivering great value for both consumer and advertiser. By leveraging both methods of targeting together, advertisers can maximize their ad's emotional and cognitive engagement.

Implications for Marketers:

The findings illustrate that different targeting tactics can be effective in delivering on the objectives of an ad campaign:

- When communicating new product features, marketers should use **personal relevance** to increase cognitive engagement among consumers.

- When the objective is centered around building awareness, **contextual relevance** can help build long term memory of the brand.
- When the intention is to emotionally and cognitively connect with the consumer at the highest level, **contextual and personal relevance combined** is most likely to elicit stronger responses than each on its own.