Neural Signals of Video Advertisement Liking: Insights into Psychological Processes and Their Temporal Dynamics

What psychological processes, as measured by brain activity during video advertisement viewing, predict ad liking, and how do these processes change over the course of the ad?

This study by Vinod Venkatraman and colleagues investigates the mental processes that drive liking of video advertisements by analyzing brain activity using functional magnetic resonance imaging (fMRI). The researchers collated data from 3 independent studies involving 113 participants across two countries who watched 85 real video ads. They applied a meta-analytic tool called Neurosynth to link brain activity patterns to various psychological processes such as perception, language, memory, executive function, social cognition, and emotion.

The findings reveal that brain activity linked to emotion and memory can predict how much someone will like an ad very quickly, often within the first three seconds. As the ad plays, thinking about social situations and decision making starts to have more impact on liking the ad. Emotional response is strongest at the beginning but then fades, while social thinking stays steady throughout. Overall, brain signals related to social and emotional reactions give better predictions of ad liking than traditional anatomical region-based brain analyses or self-reports. Moreover, aggregate early brain responses can predict how much people will like the ad at the population level.

These results provide new insights into the complex and dynamic psychological processes underlying consumer responses to video ads. They suggest that measuring multiple brain-based psychological processes during ad exposure can help marketers better understand and predict consumer preferences, ultimately improving the effectiveness of video advertising.

MAJOR TAKEAWAYS:

- Brain activity related to emotion and memory predicts ad liking quickly, within the first few seconds of viewing.
- Social cognition and executive function become more important for liking as the advertisement progresses.
- Neural signals provide better predictions of ad success than self-reports or traditional anatomical-region based brain analyses.

WHO NEEDS TO KNOW:

- Marketing Professionals
- Neuroscience Researchers
- Advertising Strategists

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