Valuable visual variety: How temporal dynamics of visual features in video ads affect ad effectiveness

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Abstract:

In today's digital marketing landscape, video ads are critical for capturing consumer attention amid widespread content saturation. This paper examines the impact of visual variety—defined as the temporal variability of a video's visual features—on advertising effectiveness. Using machine learning, we develop a multidimensional visual variety measure and apply it to over 3,000 video ads across two media channels (TV, social media) and various product categories. Three studies reveal an inverted U-shaped relationship between visual variety and effectiveness. A controlled lab experiment reveals that this relationship is mediated by stimulation and comprehension. Too little variety lacks stimulation, while too much undermines comprehension, but medium variety balances both, making ads more effective. We offer guidelines for optimizing visual variety and introduce a web-based tool to calculate visual variety scores.

Keywords: machine learning, video advertising, visual variety

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