

265. THE PERSUADED MIND: HOW ADVERTISING ALGORITHMS RECONFIGURE OUR THOUGHT PATTERNS

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This paper examines how advertising algorithms influence cognitive processes and consumer behavior. The theoretical framework draws on perception psychology and neuromarketing. The empirical basis is an original survey identifying behavioral reactions to advertising content. The study analyzes mechanisms of advertising impact on memory and attention, the phenomenon of banner blindness, and the unconscious shaping of consumer preferences.

Modern advertising does not merely sell products – it sells cognitive habits. Every day, the average person encounters thousands of messages designed to modify behavior below conscious awareness. This study investigates how algorithmic advertising restructures memory, attention, and decision-making based on original survey data. Unlike traditional advertising, algorithmic systems utilize real-time behavioral data and micro-targeting to exploit individual cognitive biases, creating feedback loops that continuously refine their persuasive impact. The theoretical framework draws on neuromarketing research [1; 2], while the empirical basis is a survey (N=31) measuring advertising recall, engagement patterns, and banner blindness awareness [3].

The survey reveals a fundamental paradox [3]. Regarding long-term memory, 83 % of respondents recalled specific childhood advertisements, confirming that emotionally charged content creates durable memory traces by engaging the amygdala and bypassing rational filters. However, current engagement patterns differ sharply: 67 % actively skip ads, only 28 % consider ads in purchasing decisions, and just 6 % watch ads to completion. Additionally, 56 % reported experiencing banner blindness – the unconscious filtering of ad-like content. The categories of advertising encountered – online retail (30 %), financial services (20 %), gambling (15 %), education (12 %), video games (10 %), health (5 %), and other (8 %) – reflect the priorities of the digital economy, where algorithmic promotion drives visibility for high-margin or high-engagement sectors.

The contrast between high recall and low engagement suggests information overload forces cognitive defenses like banner blindness. Yet this adaptation does not eliminate advertising influence; it merely shifts it below conscious awareness. As Zaltman [4] demonstrated, approximately 95 % of cognition occurs unconsciously. The neurological mechanism involves dopamine: repeated exposure shifts reward from learning to recognition, reinforcing brand loyalty through conditioned association. Algorithmic advertising accelerates this process by ensuring optimal frequency and timing of exposure, thereby maximizing the efficiency of this dopaminergic conditioning. Savelyev [1] adds that advertising's imperative structure – every ad contains an implicit command (“buy”, “choose”) – transforms it into a behavioral modification tool. That only 28 % acknowledge being influenced thus confirms advertising's unconscious effects [3].

Paradoxically, banner blindness demonstrates cognitive strength of advertising. Blocking ads requires new cognitive habits that restructure attention patterns. The prevalence of quick, emotionally charged content trains users in rapid scanning behaviors that generalize to non-commercial contexts, contributing to attention fragmentation and shallow information processing. Furthermore, the dominance of short-form video formats (Reels, Shorts, TikTok) in current algorithmic feeds exacerbates this by rewarding rapid context-switching rather than deep focus, effectively synchronizing cognitive rhythms with advertising pacing. Lindstrom [2] similarly argues that sensory branding creates implicit memories that shape behavior without conscious recognition.

The persuaded mind is a neurological reality of the digital age. Advertising restructures cognition in four domains: long-term memory shaped by repetitive commercial content; attention modified through defensive mechanisms like banner blindness; decision-making shifted toward unconscious preferences via dopamine-mediated recognition; and information processing fragmented to mirror advertising formats. These findings extend beyond marketing into psychology and neuroscience, suggesting the central question of the digital age is no longer simply how to capture attention, but how to protect cognitive autonomy in an environment designed for continuous persuasion.

Further interdisciplinary research is needed to explore the long-term societal implications of algorithmically-mediated cognitive restructuring.

References:

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