# How artificial intelligence is transforming digital media advertising



The digital media landscape is undergoing a significant transformation as studios, streaming services, and social video platforms compete vigorously for viewer attention. According to Deloitte's 2025 Digital Media Trends report, the surge in streaming and on-demand video has fragmented traditional pay-TV audiences, increased costs for studios, and reduced profit margins. Amidst this challenging environment, the rise of artificial intelligence (AI) is reshaping advertising by enabling more personalised, scalable, and dynamic ad placement techniques.

One of the most notable developments is dynamic ad insertion (DAI), a technology that allows advertisers to integrate ads into digital video content in real time without the need to re-edit or republish the original material. This method identifies precise insertion points within content and selects ads tailored to individual viewers based on their profiles, location, and interests, ensuring a seamless viewing experience. Jonathan Heller, CEO of Firsthand, highlighted to AdExchanger, “Generative AI isn’t just a technology… It gives us a brand new way of engaging with the consumer.”

The advantages of DAI include flexibility for advertisers to update ads promptly, precise targeting using audience data, enhanced revenue generation from efficient ad delivery, and an improved viewer experience through personalised content. For example, Amazon's Prime Video utilises extensive user data—from watching habits to demographics—feeding AI-driven dynamic creative optimisation (DCO) that adapts advertising creatives to specific audience segments, moving beyond static advertising limitations.

Another innovative AI-powered approach gaining traction is virtual product placement (VPP), which integrates brand messages into virtual environments such as movies, video games, and augmented reality applications. AI performs complex context analysis including scene segmentation, object and action recognition, camera angle scrutiny, and emotional tone assessment to ensure brand elements are seamlessly embedded without disrupting viewer immersion. Companies like Mirriad and KERV leverage such technologies; Mirriad has integrated VPP into platforms like Prime Video and ITV, while KERV’s AI enables immersive, shoppable advertising on shows such as “Below Deck” and “Love Island USA” through partnerships with NBCUniversal.

The use of AI extends into real-time ad placements in live broadcasts, particularly within sports media. AI-driven platforms replace traditional static banners with geo- and behaviorally targeted ads, which enhance customisation and audience engagement. The Tennis Channel has collaborated with Amazon Prime’s technology, while efforts by companies like Supponor and Vizrt further demonstrate AI’s capability to enrich live broadcasts across sports, news, and corporate events. According to uniqFEED quoted by The Sports Business Journal, this technology “creates ad space out of thin air in a more efficient manner than current methods, giving rights holders unprecedented customisation abilities.” AI systems also manage latency efficiently using edge computing and parallel processing, ensuring ads display swiftly and without disrupting the viewing experience.

For media sellers and advertisers, AI opens fresh monetisation possibilities. Obsolete content can be revitalised with updated branding and targeting strategies informed by historical audience data. WideOrbit explains that AI-driven insights assist sellers in setting “dynamic and competitive pricing based on audience demographics, campaign objectives and market conditions,” optimising returns and inventory yield. The technology’s enhanced targeting and transparency enable campaigns with reduced waste and improved return on investment. Additionally, AI and machine learning algorithms analyse cross-platform ad performance, offering strategic recommendations for future campaigns. Major advertising agencies, including Omnicom and WPP, have recognised the transformative potential of AI and have made significant investments in the space.

Despite its promises, AI adoption in advertising presents ethical and practical challenges. There is ongoing debate about whether AI-generated ad placements should be disclosed to consumers. MIT’s Sloan Management Review reported that 84.4% of AI experts surveyed believe such disclosures are necessary. Tshilidzi Marwala of United Nations University argued for transparency, stating in the review, “Companies should disclose their use of AI in their products and offers to customers for transparency, trust, informed consent, accountability, ethical considerations and consumer protection.” Conversely, Amit Shah of Instalily.ai warned that mandatory disclosures could “impede innovation and overburden businesses, especially smaller ones,” potentially causing confusion and notification fatigue among consumers.

Beyond disclosure, concerns extend to how AI-generated content might affect artistic integrity and privacy. Surrealist artist Molly Crabapple described generative AI as “vampirical,” suggesting it relies heavily on pre-existing artworks while potentially undermining living artists. The ethical use of personal data to target ads remains a subject of intense discussion, with opinions varying on the possibility of ethical AI deployment in this domain. Universal regulation on these matters is yet to be established.

Looking ahead, advancements in quantum computing, blockchain, and 5G technologies are expected to accelerate AI’s role in enhancing 3D modelling, predictive design, and real-time viewer experiences. Increased integration of AI in programmatic ad exchanges promises further gains in cost-effective advertising, targeting precision, and creative innovation.

In summary, AI’s impact on digital media advertising is profound and multifaceted. It is revolutionising not only how and when ads are delivered but also where they appear, enabling smarter, more contextually relevant brand integrations. The trajectory suggests a future where advertising is less about interruption and more organically woven into the narrative, offering new possibilities for advertisers, content creators, and viewers alike.

Source: [Noah Wire Services](https://www.noahwire.com)

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