



Transforming Advertising in the Digital Era: The Rise of AI-Driven Immersive Storytelling

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Abstract

Artificial Intelligence (AI) and immersive technologies such as Augmented Reality (AR) and Virtual Reality (VR) are reshaping contemporary advertising by enabling more interactive and personalised storytelling experiences. However, research has not yet fully explored how these technologies work together to support creativity and emotional engagement with the audience. This study examined the integration of AI and immersive media in brand storytelling through three international campaigns: Coca-Cola's "Create Real Magic," Nike's "Nike By You," and L'Oréal's AI-enabled Virtual Try-On. A qualitative thematic analysis was conducted using secondary data from campaign reports, brand communication materials, and digital media outputs. The study highlights how AI supports user participation, identity-based personalization, and immersive experience in advertising, demonstrating a shift from traditional one-directional messaging to co-creative and emotionally resonant brand narratives.

Keywords: Digital Advertising, Artificial Intelligence, Machine Learning, Immersive Storytelling, Augmented Reality, Virtual Reality

Introduction

At present, advertising is no longer simply a means of conveying information; rather, it is now a continuous process of experiences, personalisation, and engagement. This shift has really been altered by Artificial Intelligence (AI), Machine Learning (ML), and immersive technology, including Augmented Reality (AR), Virtual Reality (VR), which are changing how brands craft their stories, making experiences more participatory, driven by data, and emotionally relevant (Gao, 2023). As traditional advertising has become less appealing to digital consumers, the emphasis has shifted toward storytelling that immerses consumers in brand experiences, encouraging them to engage, co-create, and emotionally connect with the message (Du et al., 2022). AI is at the centre of this transformation, automating creative production and making hyper-personalized storytelling a reality. By utilizing machine learning algorithms, advertisers can now analyse consumer behaviour, predict preferences, and customize content accordingly. A new era of creative automation and storytelling has emerged with the integration of data and creativity, making way for contextual storytelling. Generative AI models, such as GPT and DALL·E, are increasingly used to develop compelling ad scripts, visuals, and voiceovers based on user sentiment and intent (Ford, 2023). Simultaneously, immersive technologies, such as AR and VR, have transformed the way stories are experienced. Instead of passively viewing advertisements, the audience is invited into virtual spaces where they can engage with a product, interact with digital avatars, and even influence narrative outcomes (Du et al., 2022).

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The purpose of this research study is to explore how AI-driven immersive storytelling is transforming advertising in the digital age. More specifically, the study examined how brands utilize AI and immersive technologies to foster creativity, personalisation, and emotional connection in their advertising campaigns. The study not only highlights the evolving creative strategies within digital advertising but also contributes to theoretical discussions on storytelling, automation, and human–technology collaboration in the field of media studies.

Literature Review

1. AI as a Catalyst for Creative and Adaptive Storytelling

Karnatak et al. (2025) demonstrate that AI can serve as a co-creator, rather than solely as an automation tool. In their proposed human–AI co-creation framework, they observe that small business owners and non-experts can successfully partner with generative AI tools to co-develop brand-consistent content, provided they have structured prompts and pre-guided interfaces. This particular finding illustrates how AI can help enhance storytelling precisely without compromising the content.

According to the findings of another study by Islam et al. (2024), generative AI involves adaptive features which drive digital marketing transformation through data storytelling and hyper-personalized customer journeys. They found that by modifying text suggestion (tone, imagery, and other more appropriate messaging) or narrative style to the tastes and actions of specific customers, AI-driven narrative design can increase the emotional relevance of the thematic elements they employ. According to earlier research (Liu-Thompkins et al., 2023), AI enables the creation of more effective dynamic narratives that are continually developed in response to shifting user engagement.

2. Machine Agency and Narrative Co-Creation

The emergence of generative AI like ChatGPT, Midjourney and DALL·E—has generated academic interest in the notion of "machine agency." Sundar and Kim (2019) introduced this notion some time ago, but recent investigations have built upon it to explain how audiences interpret narratives generated by AI. For example, Islam et al. (2024) and Karnatak et al. (2025) find that users increasingly think of AI as an agent engaged in a partnership relationship with human authorship perhaps co-shaping story direction, visual identity and brand expression. These tools both reduce the barrier toward creative participation and seemingly convert audiences from passive spectators into co-authors for constructing brand meaning.

This type of interactivity enhances user engagement by fostering greater autonomy and increasing psychological ownership. Dacko and Spyridou (2023) find that AI-generated narratives foster a greater perceived sense of creativity and newness, which supports brand differentiation in an audience-pervasive digital environment.

3. Immersive Brand Experiences Through AR and VR

Along with advancements in AI, AR and VR have also developed into powerful mediums for experiential storytelling. In a systematic review of the AR marketing literature, Du, Edwards, and Pookulangara (2022) demonstrate that incorporating digital content into the physical environment enhances both emotional and cognitive engagement. Thus, AR advertisements increase presence, enjoyment, and meaning when compared to non-AR formats.

More recently, empirical studies bolster these claims. Zeng, Xing, and Jin (2023) found that AR/VR brand experiences impact consumer–brand relationships through four experiential dimensions: entertainment, aesthetics, education, and escape. Perceived brand authenticity also moderated effects, indicating that brand storytelling using AR/VR is most effective when communicated in a credible, authentic, and transparent manner. Additionally, Hollebeek and Sethi (2024) argue that AR-based interactions enhance consumer engagement in a luxury context, providing initial social presence through brand warmth and competence.

4. Convergence of AI and Immersion in Narrative Engagement

Although AI and immersive technologies have generally been examined in isolation, recent research findings indicate a synthesis of the two in the development of next-generation storytelling. Islam et al. (2024) explain that the combination of generative AI with immersive interfaces will provide different ways to create

adaptive and participatory brand experiences. For example, the immersive AR/VR experience can facilitate personalized AI story path generation, with each narrative uniquely tailored to the viewer.

The Arts Management and Technology Lab (2024) similarly state that consumers expect AR/VR spaces to include AI characters, responsive storylines, and collaborative features. Users view immersive worlds as narrative ecosystems in which they can explore, change, or extend brand narratives, which supports the shift toward consumer narratives.

Research Gap

In digital advertising, Artificial Intelligence and Immersive technology have been widely studied, but their integration from a creative and storytelling perspective is less explored. Present studies focus on automation and personalisation while overlooking AI's role as a co-creator for any brand. Additionally, limited studies have been conducted on the use of AI in collaboration with immersive technology to create participatory and emotionally engaging content. This study aims to address this gap by examining how leading brands, such as Coca-Cola, Nike, and L'Oréal, implement AI-driven immersive storytelling in their advertisements to redefine creativity and audience engagement.

Research Objectives

1. To investigate how Artificial Intelligence (AI) and immersive technologies (AR/VR) are changing storytelling methods in modern advertising.
2. To explore how international brands, including Coca-Cola, Nike, and L'Oréal, are leveraging AI and immersive technologies to create participatory, customized, and emotionally engaged advertising experiences.
3. To explore how AI acts as a partner in the creative process, to support human imagination, create personalisation, and develop data-driven storytelling experiences.
4. To highlight prominent themes and patterns, as part of a qualitative thematic analysis of selected advertising campaigns.

Research Methodology

Research Design

This research study applied a qualitative research design to investigate how AI and immersive technologies are changing storytelling in advertising. As this study is interpretive in nature, a multiple case study approach is used for detailed knowledge of how global brands utilize AI-driven storytelling to engage audiences and enhance brand identity and the study allows for contextual insight into the integration of technology and creativity in the changing world of digital advertising. (Creswell & Poth, 2018)

Case Study Selection

The present study considers three international brands that were intentionally selected because they have uniquely and innovatively incorporated AI and immersive technology into their storytelling.

1. Coca-Cola – “Create Real Magic” (2023)

The "Create Real Magic" campaign by Coca-Cola was one of the earliest experiments utilizing generative AI in advertisements. Coca-Cola partnered with OpenAI and Bain. The company invited digital artists and consumers to co-create brand images and copy with ChatGPT and DALL-E 2 (The Coca-Cola Company, 2023). The created art pieces were displayed on digital billboards and social media, making audiences co-creators of brand stories (Marketing Dive, 2023). The campaign showed the potential of AI to democratize the concepts of creativity and storytelling in advertising.

2. Nike – “Nike By You”

The Nike By You campaign (previously NikeiD) used AI-based personalisation and customer participation in the branding process. Using its platform, customers have the opportunity to create their own shoes and clothes and receive AI-based design suggestions based on their user information and activity trends within the Nike digital ecosystem (Nike, n.d.). The campaign used the power of data analytics and machine learning to transform consumer identity into personalized design expression (Mathews, 2024).

3. L’Oréal – “AI Beauty Advisor & AR Try-On”

L’Oréal has been the first in the cosmetics category to implement AI and Augmented Reality (AR) to develop immersive and emotionally driven beauty experiences. The company developed an AI Beauty Advisor and Virtual Try-On technology, enabling people to virtually apply products to their faces in real-time with the help of AR and machine-learning algorithms (L’Oreal, 2023). The technology customizes suggestions by considering skin tones, facial features, and the lighting environment, providing realistic previews that generate confidence in consumers (Business of Fashion, 2024). Research studies reveal that these digital tools have enhanced user satisfaction, conversion rates, and inclusivity in beauty advertisements (Intuji, 2022).

Criteria for Selecting Cases

The cases of Coca-Cola’s “Create Real Magic”, Nike’s “Nike By You”, and L’Oréal’s AI Beauty Advisor campaigns were selected using purposive sampling, which aligned with the study’s purpose. The primary case selection criteria included:

1. **Relevance to Purpose:** Each marketing campaign demonstrates a primary focus on the intersection of AI and storytelling in advertising.
2. **Utilization of Technology:** Each case demonstrates clear incorporation of AI technologies and immersive technology tools, such as ChatGPT and DALL·E, data analytics, or AR applications.
3. **Globally Recognized Impact:** The selected brands are globally recognized, leading brands that creatively focus on digital innovation and creativity in advertising.
4. **Availability of Data Sources:** Each selected case includes readily available and credible secondary data sources for analysis
5. **Diversity of Field:** The selected cases provide three different fields of beverage, sportswear, and cosmetics that provide comparison points.

Data Collection

This study utilizes secondary qualitative data to examine the impact of AI-driven immersive storytelling on advertising. Data were sourced from various sources, including official brand websites, archived digital campaigns, media coverage, and industry analysis reports. Additional information was also obtained from peer-reviewed journal articles and marketing studies to enhance the validity and thoroughness of the findings. Each category of the Coca-Cola campaign, “Create Real Magic”, Nike’s “Nike By You”, and L’Oréal’s AI Beauty Advisor was analysed and organized thematically to highlight narrative strategies, technological applications, interpretation and their insights.

Data Analysis

This research employed a thematic analysis approach, following Braun and Clarke’s (2006) six-phase guide. The analysis included reviewing the data using each narrative structure of the campaign, generating initial codes, identifying themes, and developing the identified patterns into overarching themes. Each case was analysed based on its narrative structure, technological integration and the level of audience engagement, which collectively contributed to the analysis process. The thematic patterns encompass AI-driven creativity, personalized storytelling, and immersive brand experiences across all campaigns. Further comparison of the cases reveals how different industries utilize various strategies in different ways.

Thematic Analysis of Campaigns

Case Study / Campaign	Technology Used	Core Theme	Key Insights / Illustrative Evidence	Audience Engagement	Interpretation / Contribution
Coca-Cola – “Create Real Magic” (2023)	OpenAI’s ChatGPT & DALL·E	Human–Machine Co-Creation	Invited users worldwide to co-create visuals and taglines using AI, merging consumer creativity with machine output.	Over 120,000 artworks generated; millions of impressions globally (The Coca-Cola Company, 2023; Forbes, 2023).	AI transforms audiences from passive consumers into active co-creators, fostering emotional connection and brand loyalty.
	OpenAI’s ChatGPT &	Participatory Storytelling	Global participation in digital art creation turned	Social platforms showed high	Demonstrates AI’s role in democratizing

	DALL·E		consumers into part of the brand's narrative.	engagement and mixed emotional responses.	creativity and enhancing collective brand identity.
Nike – “Nike By You” (Ongoing)	Data Analytics & Machine Learning	Personalized Storytelling	Allows users to design shoes using AI-driven customization tools and behavioral data.	Users spend 18–22 minutes per session; 20–30% higher conversion than standard product pages (AIM Research, 2024).	AI enables self-expression through design, turning personalization into a brand narrative of individuality and empowerment.
	Data Analytics & Machine Learning	Data-Driven Creativity	AI interprets user preferences and generates customized recommendations.	Strong social media engagement via user-generated customization videos.	Data insights become creative input, blending technology and emotion in storytelling.
L’Oréal – “Virtual Try-On” & AI Beauty Advisor	AR, ML, and Facial Recognition	Immersive Brand Experience	AI and AR tools allow users to virtually try cosmetics, making interaction experiential and emotional.	Over 1 billion virtual try-ons; 94% higher conversion for AR-enabled products (L’Oréal, 2023; Intuji, 2022).	AI merges technology and emotion, turning product interaction into an immersive story.
	AR, ML, and Facial Recognition	Empowered Identity Formation	Personalized recommendations enhance self-expression and confidence.	Positive user sentiment emphasizing inclusivity and personalization (Business of Fashion, 2024).	Reframes beauty marketing from persuasion to participation, creating authentic digital experiences.

Data Interpretation

The thematic analysis revealed four general themes:

1. Human-Machine Co-Creation

The first important theme is the potential for humans and AI to collaborate and produce creative content. For example, Coca-Cola's "Create Real Magic" campaign (2023) showcases this shift in how branded creative content can be produced. By utilizing OpenAI's ChatGPT and DALL·E, the campaign enabled the audience to co-create branded imagery and slogans, shifting them from passive receivers of content to active agents in co-creation, where they responded and reworked the brand story in the process. In this participatory storytelling endeavor, creativity was democratized, allowing consumers to feel a sense of emotional agency in the brand's story and form an emotional bond with it. The success of the campaign demonstrates that AI tools should be viewed as partners in the creative story ideation process, rather than as replacement services for human ideation. Instead, think of AI tools as amplifications of human imagination through technological augmentation.

2. Personalisation and data-driven storytelling

The second theme, inspired by Nike's "Nike By You" campaign, highlights how AI-based personalisation creates localized narratives. Using machine learning and data analytics, Nike generates creative insights by converting consumer data ranging from fitness data to design preferences into a memorable narrative. Each customized product becomes part of their individualized expression and an experience of achievement. This self-expressive and unique data based narrative combines emotional authenticity with technological accuracy, allowing the user to imagine themselves as the protagonist on their fitness journey. Ultimately, the findings suggest that AI-informed personalisation increases the correspondence of the narrative to the user story, likely fostering intimacy with the brand and ongoing engagement.

3. Immersive Experience and Emotional Engagement

The third theme that emerges from L’Oréal’s Virtual Try-On program is the integration of AI and augmented reality (AR) to create immersive brand experiences. Using facial recognition and machine learning, consumers can virtually ‘try on’ cosmetics, seeing the transformation happen in real-time. This interaction elevates the experience beyond traditional advertising, as the consumer actively participates in the brand's story.

The emotional aspect of discovering one's personal beauty and empowerment shifts beauty marketing from persuasion to participation. The results suggest that immersive storytelling activates consumers, enabling an experiential sense of intimacy and trust in branded digital ecosystems.

4. Increased Audience Engagement

For all three brands, increased audience engagement was found through the engagement metrics. Coca-Cola, for example, saw over 120,000 artworks created through global participation. Nike had conversion rates 20%-30% higher than normal with customized designs. L'Oréal had 1 billion virtual try-ons on its platform. These results demonstrate that AI and immersive technology enhance engagement, interactivity, and conversion, making them a powerful tool for creative storytelling.

5. Cross-Case Insights

The analysis reveals a shift in advertising practices across all three research cases, evolving from persuasion-based, one-way communication to co-created, personalized, and participatory experience-based storytelling. Artificial Intelligence serves as a creative tool and collaborator in storytelling, generating opportunities for improved inclusivity and emotional engagement with audiences. Lastly, machine learning enables brands to respond dynamically to consumer data, while immersive technologies allow brand messages to evolve into immersive digital experiences. Together, the implications of the three cases signify the rise of an impactful approach to storytelling through the synergies of AI, which develops meaning, identity, and connection in the digital age.

Discussion and Conclusion

Findings from this study indicate that AI and immersive technologies are reshaping advertising by moving it away from one-directional persuasion toward co-creative and participatory brand storytelling. Across the analysed campaigns, audiences were not positioned merely as viewers but became active contributors in shaping brand meaning. This shift aligns with contemporary understandings of interactive media environments, where engagement is constructed through involvement, identity expression, and shared narrative experience.

Coca-Cola's Create Real Magic demonstrated how AI can facilitate large-scale public co-creation, enabling collective authorship to strengthen emotional association with the brand. Nike's Nike By You illustrated how personal data and lifestyle patterns can be meaningfully integrated into product design, transforming consumption into an expression of identity. Similarly, L'Oréal's AI-enabled Virtual Try-On underscored how immersive interfaces can support self-expression by allowing users to visualize desired identities in real-time. Together, these cases show that AI enhances creativity by enabling personalisation, participation, and experiential immersion.

Importantly, the study suggests that AI functions not as a replacement for human creativity but as a collaborator that extends narrative possibilities. This requires advertisers to adopt intentional and ethical approaches when integrating AI, ensuring transparency, inclusivity, and respect for user agency.

Future research could examine the long-term behavioral and cultural implications of AI-mediated storytelling, including how audiences interpret and emotionally process co-created content. There is also scope to analyse emerging sectors such as health, education, and public service communication, where immersive and AI-driven narratives may hold transformative potential.

Looking forward, further research should investigate the implications of AI-enhanced storytelling on cultural, ethical, and regional variations. As AI continues to develop, boundaries between creation, consumption, and collaboration will shift even further, pointing to a future where storytelling is a shared, dynamic, and evolving practice between humans and intelligent systems.

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