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# International Journal of Marketing Semiotics & Discourse Studies

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## 2024

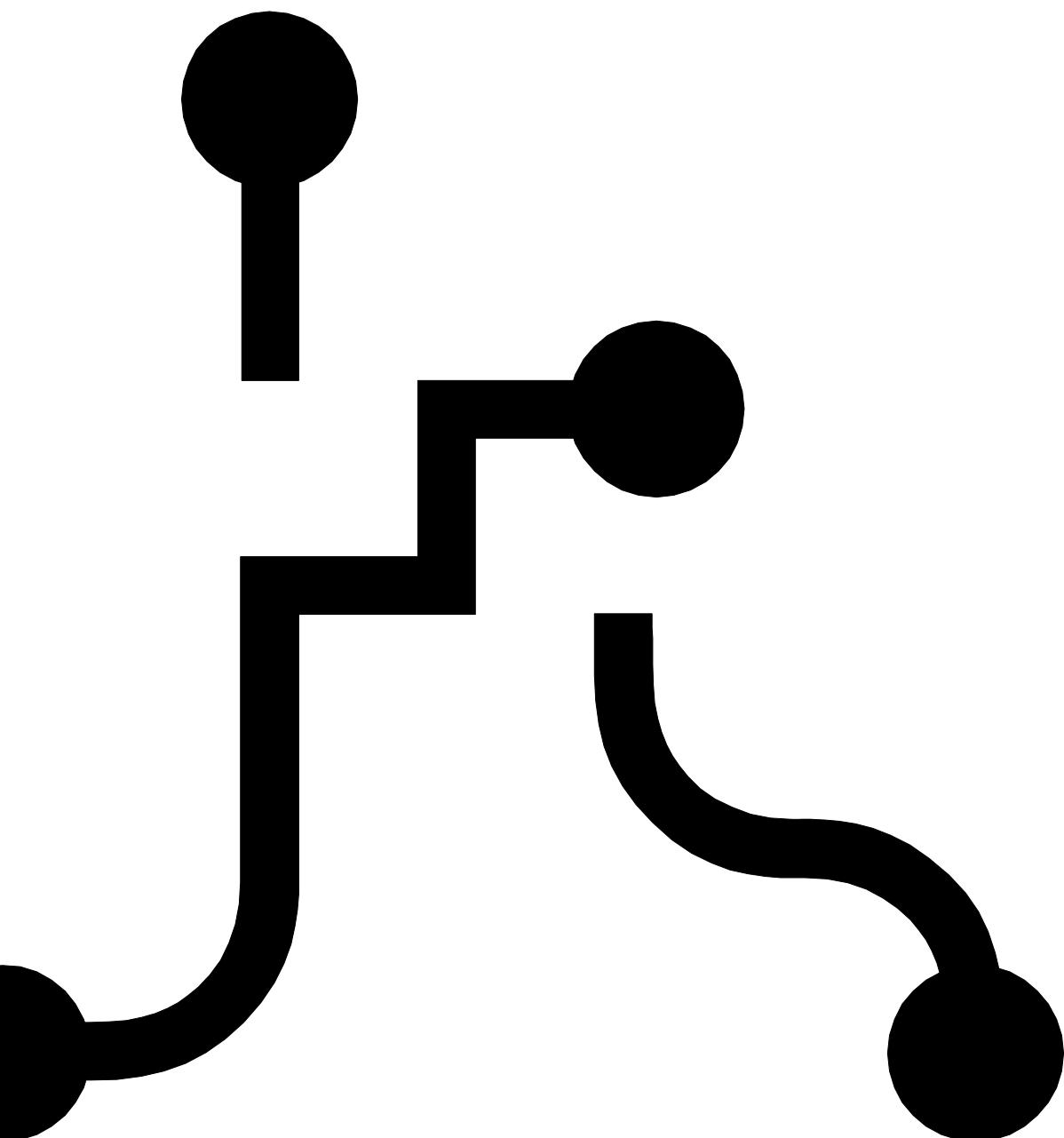
Vol. 12

ISSN: 2195-2280

[www.ijmarketingsemiotics.com](http://www.ijmarketingsemiotics.com)

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Anna Zieba (2024). Multimodal marketing in the metaverse: cultural engagement in virtual reality. *International Journal of Marketing Semiotics & Discourse Studies* Vol. XII, pp.1-24.



# **Multimodal marketing in the metaverse: cultural engagement in virtual reality**

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## **Abstract**

This study explores the transformative role of virtual reality (VR) in the realm of metaverse marketing, with a specific focus on McDonald's 2023 Lunar New Year campaign. Using a social semiotic framework and Visual Critical Discourse Analysis, the research analyzes the multimodal communication strategies employed in VR settings, assessing their impact on user experience and brand perception. The paper highlights how metaverse marketers gain enhanced control over user engagement by crafting immersive, emotionally evocative scenarios, particularly appealing to the younger audiences. This approach, coupled with advanced data analytics, allows for more targeted and personalized marketing strategies. Additionally, the study reveals the intricate ways in which VR marketing intertwines with cultural symbols, user interaction, and brand messaging, highlighting the opportunity for cultural resonance. These findings offer insights into the socio-semiotic implications of such campaigns, emphasizing the potential of VR to revolutionize marketing strategies.

**Keywords:** metaverse, VR marketing, restaurant marketing, VR advertising, multimodality, critical analysis, visual communication

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## 0. Introduction

The metaverse is a digital environment that combines virtual and real spaces. It is accessible through platforms that allow users to communicate with computer-generated characters and objects, and more importantly, to interact with each other in real-time, reducing the psychological distance between them. To experience this virtual universe in 3D, users need virtual reality headsets, augmented reality glasses, smartphone apps, or other similar devices. Alternatively, a basic 2D version is available, requiring only a computer, tablet, or smartphone with an internet connection.

Commonly referred to as 'the next iteration of the internet,' the metaverse mainly operates on a decentralized digital ledger consisting of a chain of blocks, i.e., transactional records stored in numerous databases forming a network connected through peer-to-peer nodes. Since the data cannot be altered without consensus from the network, the technology is considered to provide a higher level of security than traditional databases. Additionally, it gives users the agency and ownership of data and assets, ensuring greater control over their information (Hadean Team, 2022).

For these reasons, at least partially, the metaverse has gained popularity. According to reports, Roblox, one of the largest platforms, noted over 70 million daily active players, 16 billion engagement hours, 3 million developers, and 5.5 million active experiences in the third quarter of 2023 alone (Roblox, 2023). Similarly, earlier this year, The Sandbox reported in their annual review that in 2022 the Sandbox Game Client was installed over 1.3 million times ("2022 Year in Review", 2022). Such impressive numbers attract investors. According to McKinsey & Company (2022) only in the first five months of 2022, more than \$120 billion was spent on developing metaverse technology and infrastructure, which is twice the amount invested in all of 2021. The transactions in the virtual real estate market add to the sum. In November 2021, Fashion Street Estate, a virtual plot in Decentraland, was sold for a record \$2.4 million worth of cryptocurrency, and only a week later, The Sandbox sold estate land for \$4.3 million (Melo, 2023).

No wonder numerous brands have recognized the metaverse as a favorable avenue for promotional activities, establishing their presence in this immersive space. Given the intricate and costly nature of developing an independent metaverse infrastructure, most brands opt for collaborations with established platforms. The fashion sector, in particular, demonstrates a keen interest in such ventures. Leading high-fashion brands curate virtual shops, events, and mini-games, exemplified by initiatives like Gucci Garden, Gucci Town, Tommy Play, The Ralph Lauren Winter Escape, alongside endeavors such as H&M Loooptopia Experience, Nikeland, and Yeezy Gap Game from more affordable retailers.

The most popular platform for virtual experiences appears to be Roblox. In addition to the above-mentioned partnerships related to clothing, they have collaborated with Vans to create virtual versions of famous sites like Venice Beach, where players could skateboard, compete with others in the same server, or earn virtual coins by performing tricks. Cooperation with Hyundai lead the companies to create Hyundai Mobility Adventure, where users can explore future mobility solutions across five themed parks. Other platforms are also making progress in this area. For example, Fortnite has partnered with Louis Vuitton, Balenciaga, and Ferrari, while The Sandbox with Warner Music Group, Snoop Dogg, and Adidas, and Decentraland with Samsung, the Voice, and Absolut to name just a few.

Within the expansive landscape of industries advertising in the metaverse, the fast-food restaurant business, a focal point of this study, also extends its presence into the virtual realm. Chipotle, for instance, launched the Chipotle Boorito Maze game, challenging players to gather ingredients that bestow superpowers, aiding them in navigating the maze and acquiring virtual items imbued with a Chipotle theme for their avatars. Burger King, in turn, introduced the 'Keep It Real Meals' promotion, leveraging celebrity endorsements to captivate customers. Similarly, Starbucks explored new possibilities with Starbucks Odyssey, a Web3-powered experience incorporating NFTs into its loyalty program. The initiative has allowed Starbucks members and partners in the U.S. to earn and purchase digital collectibles and unlocking exclusive benefits (Starbucks, 2022). Wendy's on the other hand has used the potential of the metaverse not only

for recreational purposes within Wendyverse but also to elevate employee training. The company immerses its staff in lifelike virtual scenarios, mirroring the dynamic atmosphere of their real-world restaurants. This approach enables employees to hone their skills in various job tasks, spanning order-taking, food preparation, and customer interactions.

The aim of the study is to reveal that the motive behind companies entering the metaverse landscape goes beyond financial gain. By marking a presence in these digital spaces, firms can expand their reach and adapt to the technological preferences of the young, tech-savvy audience. Moreover, establishing themselves in the metaverse, companies demonstrate their commitment to innovation, showcasing a tech-forward approach that positions them as industry leaders. This proactive engagement is a testament to their efforts to stay relevant in an ever-evolving digital era, where creativity and adaptability are paramount. However, from the perspective of a critical analyst, what is unsettling about this situation, is the fact that venturing into the metaverse allows companies not only to keep pace with the evolving landscape of digital communication but also actively shape and define it.

## **1. Metaverse advertising: a literature review**

The impact of companies' metaverse discourse calls for academic inquiry to unravel and comprehend the complex aspects of its social implications. Indeed, research on the subject has surged significantly since 2020, though most studies present a cautious approach. Given the phenomenon is in its infancy and the future form of the metaverse remains uncertain, researchers are often reliant on intuition and hypothetical circumstances. The current literature on metaverse advertising primarily centers on defining its potential for promoting products and services, and exploring its implications for marketing and management practices (Barrera & Shah, 2023; Gursoy et al., 2023; Eyada, 2023). The body of research also examines transformative shifts in advertising paradigms, particularly within the realms of purchase and consumption experiences (Ahn et al., 2022; Gursoy et al., 2023).

A broad overview of the subject is presented by Kadry (2022), who contends that the metaverse surpasses traditional branding by offering more appealing and less intrusive brand experiences than current digital advertising. Kadry also provides insight into the opportunities and challenges of this evolution. On the one hand, marketers can submerge their brands in immersive experiences, casting each user as the main protagonist for heightened engagement and effectiveness; on the other, advertising in the virtual realm demands increased creativity. This challenge stems from the intricate nature of metaverse formats including owned metaverse spaces, experience and interactive event placements, digital products with NFTs, product placements, advergames, and native in-game advertising—all of which mandate a demanding and costly production process.

At the receiving end, scholars mainly praise metaverse for increased customer engagement in purchase experience co-creation (Gursoy et al., 2023) and for promoting bonding via joint experiences (Hennig-Thurau et al., 2023). The immersive nature of the metaverse is also highlighted by Kim (2021), who sees considerable potential in exploring how multiple users interact with messages. He encourages scholars to discern the functions and modes for metaverse use, examine the perception and processing of such messages and evaluate them through key performance indicators, while considering cross-cultural aspects, as well as ethical and privacy issues.

The research concerning restaurant advertising in metaverse is mostly limited to studies concerning the hospitality industry (Buhalis et al., 2022; Ozdemir et al., 2023; Rather, 2023). Gursoy et al. (2022) maintain that despite the metaverse not acting as a substitute for tangible hospitality experiences, it will inevitably transform the modalities through which consumers interact with products and services in these industries. Fonseca et al. (2022) echo this sentiment and call attention to the fact that the core of hospitality lies in experiences that are sensory-rich, meaningful, and immersive, embracing qualities that make them compatible with what the metaverse has to offer. In a study focusing on food in the metaverse, conducted by Cha (2022), posits that the future will witness a surge in the presence of food and restaurant

companies in virtual reality. This growth, according to Cha, is attributed to the heightened acceptance of non-face-to-face services, accelerated by the impact of COVID-19 and calls for an effective consumer engagement through strategic planning, involving the use of metaverse.

## **2. Theoretical background and research questions**

The research revolves around three main areas of study. First and foremost, it seeks to explore the semiotic implications inherent in VR advertising, aiming at unraveling its impact on communication and interaction dynamics. Then, it examines the construction of diverse communicative modes used in the virtual space, and, last but not least, it probes the socio-semiotic consequences arising from their application. The author recognizes that metaverse extends beyond individual VR experiences, envisioning a consistent, interconnected virtual universe. Nevertheless, since VR technology is pivotal in providing the immersive digital experiences central to this study, the research concentrates exclusively on this dimension. The following sections will offer a comprehensive understanding of the theoretical foundations of the study, dissecting the multimodal, socio-semiotic substructures of VR.

The semiotic exploration in the VR domain aims primarily at unraveling the intricacies of communication within this setting. For instance, Marini et al. (2012) spotlight the essential concepts of similarity and mimesis, underscoring their indispensable role in ascribing meaning to VR applications where signs symbolize virtual entities in the absence of tangible counterparts. They assert that the constructed communicative environment should conform to conventional patterns of coding information, operating as a description aligned with what is typically perceived as natural. Additionally, emphasizing the persuasive nature of VR, they highlight the use of rhetorical choices encompassing emotional appeal and the orchestration of discourse through well-crafted arguments and logic.

Barricelli et al. (2016) expand upon this work, incorporating insights and developments based on a distinct semiotic analysis of VR systems. They emphasize three key levels—syntactic, semantic, and pragmatic—providing a nuanced understanding of how signs and

symbols function within the VR environment, and introduce concepts such as iconicity levels, encyclopedic understanding, and the role of perceptual systems, all of which contribute to the semiotic richness of VR communication. Similarly to Marini et al. (2012), they highlight the influence of user interaction and emotional engagement on the pragmatic level, which they claim to be crucial factors in the discourse landscape of metaverse.

Discussing multimodal meaning-making, it is essential to refer to the Rubber Hand Illusion, first introduced by Botvinick and Cohen's study in 1998. This investigation examined the interaction of vision, touch, and proprioception and revealed how visual stimuli could deceive the mind. Echoing the VR experience, in the course of the experiment, subjects experienced an intriguing interplay between perception and sensory experience, an illusion that made them feel as though they were being touched by an object that actually was not in contact with them.

Further research into touch has extended the investigation, with recent advancements in multimodal research exemplified by Price et al. (2021), who explore the remediation of touch in contemporary environments and its transformative impact on social practices and experiences. Along with addressing challenges related to the absence, or inadequacy of touch in virtual reality and technological limitations in simulating touch, they present opportunities for enhancing user experience through diverse touch technologies and propose a conceptual framework that accommodates the multimodal and situated nature of touch. Other scholarly contributions include insights from Martin et al. (2022), who emphasize the expanded dimensions brought about by virtual reality; Marini et al. (2012), who focus on movement and dynamic representation; and Mills et al. (2022), who advocate for the exploration of the 'new multimodal', which encompasses linguistic, visual, audio, haptic, and kinetic modes in conjunction with diverse forms of body movements, digital artifacts, and three-dimensional virtual spaces.

Discussions on multimodality in VR frequently encompass the concept of embodiment, which includes self-location, agency, and body ownership, as described by Kilteni et al. (2012).

Such conceptualizations may help explain the experience of controlling and being inside a body in virtual environments and contribute to advancements in the design and understanding of immersive experiences. Aymerich-Franch's research (2020) on Mediated Embodiment (ME) shows that replacing a person's body with an avatar form can enhance human capabilities in four directions: embodiment of a new self, expansion of traveling capabilities, expansion of body capabilities, and the reach of immortality. Additionally, Mills et al. (2022) contribute to this discourse by examining embodied action in virtual painting, emphasizing the tacit meanings associated with virtual tools. The research into embodiment also considers its impact on emotional responses to virtual stimuli (Gall et al., 2021; Shin, 2018) and seeks to understand how these experiences contribute to the overall effectiveness and user engagement in virtual environments.

Scholars seem to have a generally positive view of the social outcomes of advertising and communication in VR. For instance, Oh et al. (2023) mention that young users benefit from engaging in virtual reality, experiencing supportive interactions, increased social self-efficacy, and reduced feelings of loneliness. Hennig-Thurau et al. (2023) also contend that it enhances social presence, interaction, positive evaluations, and emotions, allowing users to engage with people from diverse cultures, backgrounds, and nationalities. Concurring with these views, Hutson (2022) affirms that VR introduces novel avenues for communication and collaboration, fostering a more inclusive and unbiased audience. However, the researchers also acknowledge some potential drawbacks. A notable example is provided by Hennig-Thurau et al. (2023), where the scholars point out that VR headsets, which usually disconnect users from their immediate physical surroundings during specific interactions, may lead to a sense of lack of control over their tangible environment, resulting in hesitation towards adopting the technology.

### 3. Research methods

The analysis will draw on an interpretive theoretical framework that is informed by Visual Critical Discourse Analysis (VCDA) and social semiotics. To refine this approach, the study draws upon the work of Bezemer and Jewitt (2009), who highlighted a composite theoretical framework that integrates these two fields. The framework highlights the importance of meaning-making in multimodal texts and emphasizes the socially significant aspects of discourse production and dissemination across various social and cultural contexts. In addition, the current study is informed by foundational works in social semiotics by Hodge and Kress (1988) and multimodal critical discourse analysis as articulated by Machin (2013).

The methodology used in this study is consistent with Holsanova's (2012) approach to studying visual communication and multimodal integration, as well as critical analysis methodologies outlined by Jancsary et al. (2016). Holsanova (2012) emphasizes the importance of analyzing multimodality from both production and reception perspectives, acknowledging the interplay of various modes in conveying messages in complex semiotic acts. She suggests several aspects that should be considered within this kind of research: the dynamic nature of recipients' engagement with visuals and their active role in responding to multimodal messages, since individuals may perceive and attribute different meanings to visuals. Also, the relevance of pre-existing knowledge and expertise on visual attention allocation should be acknowledged, as well as the impact of tasks, goals, and context on visual exploration behavior, and the affective (emotional) responses to that exploration.

The latter approach provides insights into examining visual and multimodal texts by means of an analysis guided by Kress and van Leeuwen's (2006) social semiotics, Müller-Doohm's (1997) structural-hermeneutic symbolic analysis, and Bohnsack's (2007) documentary method. Crafted for this study, the proposed analytical procedure consists of five ideal-typical analysis steps, each accompanied by guiding questions to facilitate interpretation. Beginning with characterizing the genre, the subsequent phases focus on capturing both explicit and latent content, exploring the composition of verbal and visual elements, and

reconstructing broader social contexts. Concluding with critical evaluation including power dynamics, this analytical framework seems apt for the present study, especially as the methodology is designed to accommodate diverse genres and texts, thereby making it a versatile tool for understanding the complexities of multimodal communication in various contexts.

#### **4. Research materials**

The research materials under scrutiny pertain to McDonald's interactive campaign for the 2023 Lunar New Year celebrations in the metaverse, accessible at <https://www.mcdlunarnewyear.com/>. This campaign builds on past projects, such as an NFT launched to publicize the Mc Rib's 40th-anniversary, the New Year Hall of Zodiacs VR experience and a virtual 10th-floor rooftop garden. These past initiatives were created to demonstrate McDonald's use of the metaverse for innovative and immersive experiences, effectively exemplifying the company's dedication to harnessing cutting-edge technologies, and highlighting its expertise as a forward-thinking industry leader.

This time, the campaign aligns with the cultural significance of the Lunar New Year, which marks the transition of the Chinese zodiac sign, with 2023 being the Year of the Water Rabbit. Focusing on cultural symbolism, the campaign highlights the Year of the Rabbit's themes of longevity, peace, and prosperity, while emphasizing a sense of hope for the year 2023. The Lunar New Year campaign includes various digital products and events, such as an Instagram filter, an AI-powered TV commercial, and interactive AR filters featuring artwork. The aspect under analysis is an environment created on the Spatial metaverse platform in collaboration with Karen X Cheng. In this environment, users can explore 3D sculptures of the 12 Chinese zodiac animals. Additionally, the space extends beyond static displays, with special events like Lunar New Year parties and interactive sessions, with Karen in avatar form being added after its launch.

## 5. Analysis of findings

Below is a brief description of the 2023 Lunar New Year experience, followed by a detailed examination of the various modalities employed in the promotional material, their integration, and the broader social context shaping the conveyed significance of the experience under investigation.

### 5.1 2023 Lunar New Year experience

Visitors can explore the virtual world in either a 2D or 3D format, depending on whether they use a headset. They can examine the area in the form of an avatar, with the option to view the figure from behind and observe the surroundings, or zoom in to view the space from the avatar's perspective thereby enhancing the visual integration for self-motion perception (Giroux et al., 2021). Upon entering, as shown in Figure 1, users find a welcoming sign to the left offering guidance on space navigation, while to the right, clear instructions are provided on operating the controls. Adjacent to this, information tables are hanging on the walls, including a statement by Karen X Cheng on the production and vision of the space (Figure 2). On their path, visitors see a rotating sculpture of a tiger turning into a rabbit, symbolizing the transition of the Chinese zodiac, and then bridges leading to the next pavilion, where 3D art is displayed on the walls. This path culminates in a hall with twelve sculptures representing Chinese zodiac signs (Figure 3). In this and other areas, visitors are surrounded by other avatars who are also present in the space. Although they can interact with each other, the extent of interaction is limited, with only logged-in users having the option to engage in conversations through a chat box or microphone interface.



**Figure 1.** Entering McDonalds Lunar New Year Experience  
(from <https://www.mcdlunarnewyear.com>, retrieved December 27, 2023)



**Figure 2.** Karen X Cheng's statement in McDonalds Lunar New Year Experience  
(from <https://www.mcdlunarnewyear.com>, retrieved December 27, 2023)



**Figure 3.** Chinese zodiac signs sculptures in McDonalds Lunar New Year Experience  
(from <https://www.mcdlunarnewyear.com>, retrieved December 27, 2023)

In this virtual environment, the atmosphere is calm, soothing, and warm. The lighting resembles the golden hour, creating emotions of contentment, joy, nostalgia, serenity, awe, and wonder. Visitors can feel relaxed and inspired here. The architecture is reminiscent of traditional Chinese buildings, such as pagodas, with upturned roof corners and characteristic decorations, including lanterns and symmetry. A notable aspect is that the predominant colors are red, symbolizing good luck and happiness, and yellow, symbolizing power, royalty, and prosperity, which are also associated with McDonald's branding—the golden arches on a red background.

## 5.2 Modes of communication

The primary way of communication in this space is through visual cues, which are used to convey information across different domains. Architecture, setting, and the environment enveloping the structure play a crucial role in this regard. The spatial context creates a sense of serenity by surrounding the area with ocean and sky, making it feel detached from other structures and individuals. Avatars, which can appear as whole (unnaturally wobbly) figures or faces represent another visual domain. The visitors have limited control over how they perceive

other avatars, as the capacity to manipulate perspective is restricted. Furthermore, signs such as banners, posters, and virtual art serve as additional modes of transmitting information, primarily in a factual and non-interactive manner.

Other modes are also used in this space to share information. Text is commonly employed to provide data about the space, artist, and events. This kind of communication also assumes an interactive character when the user verbally engages with other visitors, particularly during the virtual party and artist meeting. An innovative example of textual communication is provided by means of a QR code, which, upon scanning, permits users to share an augmented reality filter on social media platforms to foster a sense of community and social interaction around the campaign. Notably, the whole experience is devoid of any audio elements or haptic communication. Gestures, body language, and movement are minimal, with users only able to walk, run, and jump, moving with controls. This can potentially result in a visual and proprioceptive mismatch, affecting the sense of ease of communication and naturalness, which, in turn, can impact the user's willingness to participate in the space and ultimately determine the campaign's success.

### ***5.3 Integration of modes & sensory feedback***

Ensuring a seamless and natural experience within the virtual environment, which significantly influences the user's sentiment towards the brand, hinges on the integration of multimodal and multisensory information. Therefore, it is essential to examine this aspect in more detail, following Holsanova's (2012) recommendations. It becomes apparent that the VR space, characterized by limited interaction and straightforward visuals, does not readily accommodate diverse interpretations. Nevertheless, visitors may construe the space differently based on their previous experiences in VR and the metaverse, ranging from enthusiasts to skeptics. Also, their familiarity with McDonald's and their associated sentiments towards the restaurant chain may contribute to different perceptions. The interpretation of the space is further influenced by the visitor's ethnicity, cultural upbringing, and geographic origin. For instance,

the space could either trigger memories associated with the Chinese Lunar New Year or create an impression of novelty and curiosity. Additionally, the visitor's perception of the space could also be affected by the purpose of the visit (social or work-related), whether they were invited, requested, summoned, or visited by chance, and the visitor's current emotional state.

These multifaceted aspects emphasize the need for a nuanced understanding of user experience in virtual spaces. It is important to note that these factors do not operate in isolation but interact in complex ways to shape a visitor's experience. Therefore, it is crucial to consider their interplay to understand various interpretations of the space. These interpretations can depend on the visitor's background, experience, and perspective. As such, further research is required to fully understand this environment's intricacies and potential implications for virtual reality and the metaverse.

#### ***5.4 Sociocultural context through a critical lens***

To characterize the broader social and cultural context of the studied metaverse experience, the previously mentioned analytical framework inspired by Jancsary et al. (2016) will be now employed. The spatiotemporal and sociocultural dimensions of McDonald's 2023 Lunar New Year campaign within the metaverse experience reveal layers of significance. Regarding space, the virtual environment crafted for user exploration stands out prominently. Temporally, the campaign strategically aligns with the Lunar New Year celebrations, enriching the user experience by synchronizing with this culturally significant period. Moreover, from a socio-cultural perspective, the campaign is deeply intertwined with symbolic elements and thematic richness, serving as a reflection of cultural values, traditions, and the specific zodiac signs associated with the lunar year.

The McDonald's Lunar New Year experience, while not precisely "institutionalized," is a testament to deliberate planning, organization, and strategic implementation within the broader context of the company's marketing initiatives. This intentional approach extends to engaging customers during cultural celebrations, promoting the brand, involving collaborators,

and adopting a multimedia strategy for engagement. The experience defies clear genre boundaries, seamlessly blending elements from advertising events, cultural traditions, social spaces, entertainment, gaming, and virtual art installations. Produced for promotional purposes, primarily targeting a young audience, the space prioritizes visual and movement modalities, deliberately avoiding haptics or olfactory elements to ensure broader accessibility.

This multimodal experience employs a specific vocabulary reflected in both verbal and visual elements. Concepts such as the fusion of tradition and the future, the celebration of Asian culture for a global audience, and the juxtaposition of exclusivity with community service and empowerment are all part of the rhetoric. They are present both in the verbal text and in the visual design, striking a balance between modernity and tradition, evoking a sense of extraordinary and exquisite elements that remain accessible to a broad audience. The prominence of displayed artwork within the space suggests a deliberate emphasis on its significance, complemented by ambient lighting that creates a peaceful, mysterious, yet welcoming and intimate atmosphere.

Reconstructing latent elements within the experience reveals 'domains' of social reality such as cultural celebration, virtual communities, technology and innovation, and corporate social responsibility. These collectively contribute to a rich social reality, embedded in a contemporary, digitally connected society that values cultural diversity, technological progress, and immersive virtual experiences.

The analysis identifies some unrealized alternatives. The unexplored dimensions within the McDonald's Lunar New Year metaverse experience could potentially include a more pronounced representation of gastronomic elements and offerings associated with McDonald's, given its foundational identity as a restaurant. This aspect, it might have been anticipated, would delve into a discourse on traditional Lunar New Year culinary items, such as fish symbolizing surplus, dumplings resembling gold ingots, and an assortment of confectioneries. However, the predominant thematic focus of the experience appears to be on art, with minimal reference to traditional Lunar New Year elements related to cuisine.

Traditionally, Lunar New Year celebrations encompass various elements like traditional dances, music, and theatrical performances that highlight the cultural heritage associated with this festive occasion. The metaverse experience, with architectural traits resembling a temple, could be conceptualized as a symbolic communal space for the McDonald's family community. This perspective aligns with the notion of the metaverse space serving as a contemporary gathering place where community members come together to celebrate shared cultural experiences.

The absence of explicit references to specific Lunar New Year elements within the metaverse space, particularly those related to traditional clothing and gastronomy, raises questions about McDonald's strategic emphasis. The decision to foreground art in the metaverse experience may align with a broader brand strategy aimed at leveraging creativity and cultural engagement. McDonald's strategic choice suggests a deliberate move to, again, reinforce its image as a modern and innovative brand, resonating with a diverse and digitally connected audience.

In critical evaluation, the analysis reveals social issues related to the visibility of Asian Pacific Americans (APA) in art and the broader cultural landscape in the USA. The McDonald's Lunar New Year campaign aligns with evolving societal values, particularly among younger generations, emphasizing social and cultural inclusion. The metaverse's appeal to a youthful demographic aligns with McDonald's target audience, reinforcing the brand's image as caring, innovative, and inclusive. The composition of different modes within the experience reflects, challenges, or conceals power dynamics in promoting cultural diversity and inclusion. In conclusion, the McDonald's Lunar New Year metaverse experience stands as a nuanced and strategically crafted venture that navigates the intersection of tradition, innovation, and cultural representation within the evolving landscape of immersive digital experiences.

## 6. Conclusion

The reception and comprehension of messages in virtual reality (VR) significantly diverge from those in the real world due to several distinct factors. Firstly, the predominance of visual information in VR tends to overwrite multisensory perception, altering the balance of sensory input experienced in reality. Additionally, the immersive nature of VR, characterized by the illusion of place, embodiment, and plausibility (Slater, 2009), introduces a lack of context that fundamentally differs from real-world experiences. The phenomenon of multisensory overload, coupled with somatosensory mismatch, further contributes to the unique reception dynamics in VR. This is evident in movements within virtual environments, such as changing location without physical motion, rotating one's head without actual movement, and focusing mobility in the hand (specifically, the fingers), illustrate the concept of mediated embodiment. Furthermore, hardware imperfections, including limitations in proprioception and haptic feedback, as well as the absence of olfactory and gustatory feedback, add layers of complexity to the reception and comprehension processes in VR. Recognizing these distinctive elements influencing VR reception is crucial for advancing research in the field and has broad implications for the design and optimization of immersive virtual experiences.

Multimodal research in the metaverse holds the key to advancing our comprehension and optimizing the vast potential that the metaverse offers for advertising. This involves investigating the intricacies of the multimodal meaning-making process within virtual spaces to unravel how various modes of communication intersect and contribute to the overall interpretation of messages. Such insights are essential for advertisers aiming to craft content that resonates with diverse audiences. Furthermore, such research serves a crucial role in raising awareness of potential outcomes within the metaverse, including the perpetuation of harmful stereotypes and discriminatory practices. It is vital to acknowledge that unchecked advertising practices may reproduce and amplify existing inequalities and power imbalances in society, posing ethical challenges that necessitate careful consideration.

The impact of virtual reality (VR) on advertising discourse and its commercial value is poised to revolutionize the landscape by harnessing unprecedented potential. VR not only brings new spaces directly to individuals but also provides a more interactive and engaging platform for advertising content. Surprisingly, studies have even shown that VR interactions can result in greater compliance compared to face-to-face interactions (Dzardanova et al., 2022). With metaverse, advertisers gain enhanced control over the user experience, including their emotions, by manipulating the virtual space and crafting scenarios that elicit specific reactions. This newfound control extends to guiding the viewer's attention through innovative means, shaping the attentive process of users in ways previously unattainable in traditional advertising formats. Moreover, VR facilitates more targeted and personalized advertising through the utilization of sophisticated data analytics and tracking technologies. By leveraging users' personal information and preferences, advertisers can tailor content to individual tastes, ensuring a more resonant and impactful advertising experience. However, it must be noted that, as of 2023, VR advertising faces challenges related to poor accessibility, hindering its widespread adoption and limiting its reach to specific demographic segments. Addressing these accessibility issues will be pivotal for unlocking the full commercial potential of VR in the advertising domain.

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