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## Beyond Reality: An Integrative Theoretical Framework for Influence Marketing in the Metaverse

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**Keywords:** *metaverse marketing; virtual influencers; consumer engagement; artificial intelligence; digital interaction.*

**GJHSS-H Classification:** LCC: HF5415.1265



BEYONDEREALITYANINTEGRATIVETHEORETICALFRAMEWORKFORINFLUENCEMARKETINGINTHEMETAVERSE

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# Beyond Reality: An Integrative Theoretical Framework for Influence Marketing in the Metaverse

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## 1. INTRODUCTION

The emergence of the metaverse as a new digital frontier represents a revolution in influence marketing, introducing new paradigms of interaction, immersion, and influence that challenge traditional approaches. With technological advancements, the integration of artificial intelligence, meta-humans, and virtual influencers in the metaverse opens unprecedented paths for brands to engage their consumers in digital environments that are both highly interactive and immersive (Narin, 2021; Tlili et al., 2022). This evolution prompts a critical investigation into how influence marketing adapts and operates within the metaverse, especially regarding the mechanisms by which virtual influencers and meta-humans, mediated by artificial intelligence, can affect consumer engagement and brand perception. This paper aims to develop an integrative theoretical framework that explores these nuances, outlining the specific mechanisms of influence and dynamics of interaction between brands, virtual influencers/meta-humans, and consumers in the metaverse (Tlili et al., 2022; Abbate et al., 2022).

A gap in the existing literature was identified, as previous studies on influence marketing have predominantly focused on the traditional digital environment, neglecting the growing influence of the metaverse and artificial intelligence technologies in redefining these interaction dynamics (Kaplan & Haenlein, 2020; Lou & Yuan, 2019). To address this gap, the present work relies on fundamentals of communication, social psychology, and media studies, adapting them to the unique context of the metaverse, an approach that recognizes immersion, presence, and interactivity as amplifying characteristics of influence mechanisms, while positing that artificial intelligence promotes a new form of personalization and authenticity in the interaction between influencers and consumers (Bailenson, 2018; Gartner, 2021).

This study contributes to the literature on influence marketing by providing a detailed understanding and a theoretical model to unravel the complexities of influence marketing within the metaverse. Integrating perspectives from various disciplines, it allows a comprehensive view of the challenges and opportunities presented by this new frontier of digital marketing.

Structured cohesively, this paper begins with a review of the literature on influence marketing, emphasizing its evolution and the rise of the metaverse as an innovative arena for digital influence. This is followed by an analysis of the role played by artificial intelligence, meta-humans, and virtual influencers in redefining brand-consumer interactions within this new environment. An integrative theoretical framework is then proposed that captures the specific mechanisms of influence unique to the metaverse, culminating in a discussion on the practical implications of this model for marketing strategists and academics. It concludes with recommendations for future research, underlining how this study advances the understanding of influence marketing in the metaverse and provides valuable insights for navigating this emerging digital context.

## II. EVOLUTION OF INFLUENCE: FROM DIGITAL TO METAHUMANS

The evolution of digital influence, from the rise of traditional opinion leaders to the emergence of virtual influencers and meta-humans, reflects constant innovation in the field of influence marketing. This development has not only transformed marketing strategies but also redefined brand-consumer interactions, introducing new dimensions of authenticity, personalization, and ethics (Narin, 2021; Buhalis et al., 2022).

Initially, opinion leaders were central figures in disseminating information and trends, acting primarily in local communities or through traditional media channels. With the advent of the internet and social

media, celebrities and digital influencers began to exert significant impact, leveraging their vast audiences to shape opinions and consumer behaviors. These influencers, with their ability to generate personal connections and direct engagement with followers, marked the first major evolution in the landscape of influence marketing (Arsenyan & Mirowska, 2021).

The introduction of virtual influencers, such as Lil Miquela and Lu do Magalu, represented the next innovative leap. These digital entities, created with advanced technologies, offer a new layer of personalization and adaptability, capable of engaging with global audiences without human physical or temporal limitations (Arsenyan & Mirowska, 2021). The "manufactured authenticity" of these influencers (Khamis, Ang & Welling, 2017), highlights how they can effectively engage audiences despite their non-organic nature.

The emergence of meta-humans, driven by advancements in AI and computer graphics, has taken the notion of authenticity to a new level. These ultra-realistic avatars, capable of expressing emotions and conducting complex interactions, promise to further revolutionize marketing campaigns, creating immersive and personalized experiences on an unprecedented scale (Sands et al., 2022). However, this evolution brings with it significant ethical concerns related to transparency, privacy, and the potential erosion of the distinction between real and artificial.

The introduction of a new element in this discussion, collective artificial intelligence (CAI), suggests a fusion between computational capacity and mass human knowledge, enhancing the creation of digital influencers who not only simulate human behaviors but also learn and evolve from collective interaction with users (Arsenyan & Mirowska, 2021). This represents an unexplored frontier in influence marketing, where personalization and authenticity can reach even more sophisticated levels. Nonetheless, this approach amplifies ethical issues, especially in relation to consumer autonomy and the responsible use of collected data (Lou et al., 2023).

As we analyze the elements composing the digital influence process, there is a need to systematize the components that constitute influence in hyper-connected environments. Thus, Table 1 below indicates the Typology of Influencers in Digital Marketing, bringing their definitions, environments, capabilities, limitations, and Ethical Considerations. It outlines a spectrum of influencers, from traditional figures to cutting-edge digital entities, each with its distinct nuances of interaction, impact, and ethics.

**Table 1:** Typologies of Influencers in Digital Marketing: Definitions, Influence Environments, Capabilities, Limitations, and Ethical Considerations

Type of Influencer	Definition	Influence Environment	Capabilities	Limitations	Impact on Brand Perception	Ethical Considerations
Opinion Leaders	Individuals recognized for their specialized knowledge in certain areas.	Traditional media, online communities, events.	High credibility; Direct influence on behaviors and opinions.	Limited reach to specific niches; May be perceived as biased.	Elevates brand authority and trust; Associated with expertise.	Transparency about paid partnerships; Maintain editorial integrity.
Celebrities	Famous individuals who use their public visibility to influence opinions and behaviors.	Traditional media, social networks, public events.	Wide reach and recognition; Strong emotional appeal.	Risks associated with personal image; High costs.	Increases recognition and emotional association; Risks of negative endorsement	Responsibility for the exerted influence; Authenticity in endorsements.
Digital Influencers	Individuals who use digital platforms to influence opinions and behaviors.	Social networks, blogs, video platforms.	Direct engagement with the audience; High targeting capability.	Dependence on digital platforms; Market saturation.	Humanizes the brand; Increases trust and loyalty.	Transparency about sponsored content; Ethics in promoting products/services.
Virtual Influencers	Digitally created characters that simulate human presence online.	Social networks, digital marketing campaigns.	Extreme personalization; Total control over image.	Lack of real emotional depth; Authenticity issues.	Innovation and modernity; Questions about genuineness.	Clarity about artificial nature; Considerations on psychological impact.
Meta humans	Ultra-realistic AI-driven avatars that can interact in real-time.	Digital platforms, immersive experiences in the metaverse.	Realistic presentations; Immersive experiences.	High development cost; Challenges in replicating human nuances.	Strengthened emotional connection; Perception of technological forefront.	Ethics in design; Avoiding unattainable standards of perfection.
Autonomous Intelligent Entities (AIE)	AI systems that operate autonomously, without direct human supervision.	Digital environments, automated interactions, virtual assistants.	Real-time responses; Adaptability to varied contexts.	Challenges in understanding cultural and emotional nuances; Risks of misunderstandings.	Potential for personalization and efficiency; Reliability issues.	Transparency in operation; Responsibility in the use of personal data.

The detailed understanding of the influence ecosystem, as outlined in Table 1, provides a foundation for advancing theoretical and managerial discussions on influence marketing. This overview highlights the need for marketing strategies that not only explore the diversity and capabilities of influencers in different environments but also seriously consider the ethical implications and impact on brand perception (Lou et al., 2023). As the discussion of the next topic approaches, it is crucial to recognize how technological evolution, especially the emergence of Collective Artificial Intelligence (CAI), redefines human interaction and influence within these digital spaces.

The subsequent topic will explore how theories of communication and social psychology adapt or are transformed in the context of the metaverse, providing a deeper understanding of how influence is constructed, perceived, and managed in advanced virtual

environments like this new and complex ecosystem of influence presented.

### III. FUNDAMENTAL THEORIES REVISITED: COMMUNICATION AND SOCIAL PSYCHOLOGY IN THE METAVERSE

The metaverse, with its convergence of virtual spaces accessible through augmented reality (AR) and virtual reality (VR) technologies, is revolutionizing the landscape of digital marketing and consumer engagement. This emerging domain, distinguished by its capacity to provide immersive, interactive, and presence-filled experiences, opens new avenues for brands and digital influencers to connect with audiences in unprecedented and profoundly meaningful ways (Tlili et. al., 2022). Integrating fundamental theories of communication and social psychology in this context not only broadens our understanding of consumer



engagement and digital influence in this innovative territory but also establishes a dialogue between the old and the new, demonstrating the potential to enrich digital marketing practices in an ever-evolving environment.

Within this scenario, the theory of social presence, as proposed by Short, Williams, and Christie (1976), originally focused on the ability of technologically mediated communication media to convey a sense of social presence, in the metaverse, this presence is extraordinarily intensified. Avatars and virtual objects begin to have a tangible and perceptible presence, creating an environment rich in potential for brand communication and influence (Narin. 2021). This natural evolution of the theory underscores the importance of developing virtual spaces that foster rich and meaningful interactions, capable of simulating the intimacy and proximity of face-to-face encounters, and how these experiences can be leveraged to transcend traditional expectations of consumer engagement.

The evolution continues to the theory of social identity by Tajfel and Turner (1979), where the possibility of reconfiguration and expression of complex identities through avatars and digital representations expands the scope of this theory, introducing new dynamics in how group identities influence behaviors, perceptions, and self-esteem. This context offers brands a unique opportunity to facilitate spaces where consumers can explore and express their virtual identities, enhancing brand affinity and loyalty.

The theory of the extended self by Belk (1988), which focuses on the incorporation of avatars and virtual goods as extensions of users' selves, opens a range of opportunities for brands. Marketing strategies that use these virtual elements as tools for identity expression can strengthen consumers' connections with brands, promoting a more personal and profound engagement experience.

Transitioning to the fundamental principles of persuasion by Cialdini (2001) reveals the complexity of applying these ideas in the immersive context of the metaverse. The engaging nature and interactive possibilities of this digital space require brands and influencers to rethink and adapt persuasion strategies to effectively capture consumers' attention and interest. Utilizing immersiveness to create more compelling experiences, brands can explore these fundamental principles in innovative ways, aligning with users' expectations and desires (Abbate et. al., 2022).

On the other hand, the uses and gratifications theory (Katz, Blumler, & Gurevitch, 1973) and the self-categorization theory (Turner et. al., 1987) find a particularly resonant echo in the metaverse. Understanding the motivations behind user engagement in this new environment is crucial for developing marketing strategies aligned with the public's desires and needs. Additionally, the possibility of forming new

group identifications that transcend geographical and physical barriers highlights the importance of marketing strategies that recognize and nurture the formation of global brand communities. These theories together underline the need for innovative approaches in digital marketing, which not only recognize the uniqueness of the metaverse as a consumer engagement space but also leverage its unique features to create engaging and memorable brand experiences (Tlili et. al., 2022).

The theory of cognitive dissonance, conceived by Festinger (1957), provides a solid foundation for understanding human behavior in the face of internal conflicts. This theory suggests that individuals seek harmony in their beliefs, values, and actions, and when faced with inconsistencies, may experience psychological tension known as cognitive dissonance. This dissonance can lead to changes in beliefs, justifications of behavior, or adaptations of actions to restore consonance. This concept is particularly relevant in the metaverse, an environment where perceptions and interactions are largely mediated by technology (Narin. 2021). For example, a user might encounter a divergence between a brand's representation in the metaverse and their prior real-world experiences, provoking cognitive dissonance. This highlights the importance for brands to ensure that their virtual identities are aligned with their real values and promises, to avoid cognitive conflicts and foster positive relationships with consumers (Narin. 2021; Abbate et. al., 2022; Tlili et. al., 2022).

Advancing to the theory of the social construction of reality, developed by Berger and Luckmann (1966), we observe how perceptions of reality are collectively constructed through our social interactions. This theory argues that the knowledge of the world is formed and consolidated by shared experiences, language, and cultural practices, revealing how different social groups may have distinct views of reality based on their common interactions. In the vast and diversified environment of the metaverse, this theory finds fertile ground for application (Suh & Ahn, 2022). Brands have the unique ability to influence and participate in the social construction of reality within this digital space. By creating immersive and engaging brand experiences, they not only shape consumers' perceptions of their products and values but also contribute to the formation of new social and cultural consensuses. The metaverse offers a stage where physical and cultural boundaries are transcended, allowing brands to create and explore new social realities in collaboration with users (Suh & Ahn, 2022).

This transition from understanding cognitive dissonance to the social construction of reality highlights an evolution in thinking about how brands can effectively communicate and relate to consumers in the metaverse.

By recognizing and applying these theories, brands can more successfully navigate the complex

digital environment, promoting authentic and constructive experiences that resonate with users' values and identities, while also contributing to the construction of new shared realities (Narin. 2021).

Adapting fundamental theories of communication and social psychology to the innovative context of the metaverse, as observed in the following Table 2, not only revitalizes their premises but also opens new horizons for the literature on influence marketing, challenging professionals to rethink strategies in an environment where the boundaries between the real and the virtual become increasingly

blurred. For instance, the theory of social presence, in the metaverse, suggests that the depth and richness of interactions can be significantly expanded, creating unprecedented opportunities for brands seeking to establish stronger emotional and psychological connections with their audience. Companies like Nike and Gucci are already exploring these possibilities, creating immersive experiences that allow consumers to interact with products in a three-dimensional and socially connected way, redefining the notion of brand engagement.

**Table 2:** Application of Sociopsychological Theories in the Metaverse: Implications for Marketing Strategies and Brand Engagement

Theory	Authors	Definition and Importance	Application in the Metaverse
Social Presence	Short, Williams, and Christie (1976)	Proposes that technology-mediated communication varies in its ability to convey the sense of social presence.	Enhanced in the metaverse through interactions in three-dimensional spaces, allowing avatars and virtual objects to have a tangible presence, increasing the effectiveness of communication and brand influence.
Social Identity	Tajfel and Turner (1979)	Explains how group identity influences self-esteem, behavior, and perception of others.	Facilitates the reconfiguration of identities through avatars, influencing brand affinity and allowing for the expression of diverse identities within digital spaces, promoting deeper engagement with brands.
Expanded Self	Belk (1988)	Discusses how individuals incorporate possessions into their sense of identity.	In the metaverse, avatars and virtual goods become extensions of the self, opening new avenues for identity expression and personalized marketing strategies, aiming for a deeper connection with consumers.
Psychology of Persuasion	Cialdini (2001)	Identifies fundamental principles for influencing decisions, including reciprocity, scarcity, authority, consistency, liking, and social proof.	The applicability of these principles can vary in the metaverse, requiring adaptations given the immersiveness and complexity of interactions, but offers unique opportunities to apply these tactics in innovative engagement contexts.
Uses and Gratifications	Katz, Blumler, & Gurevitch (1973)	Explores how people use media to satisfy specific needs and desires.	Understanding motivations for engagement in the metaverse is crucial for developing effective marketing strategies that leverage the unique opportunities of immersion and interactivity to meet user needs.
Self-Categorization	Turner, Hogg, Oakes, Reicher, & Wetherell (1987)	Details how individuals identify with social groups and categories.	The metaverse can facilitate new forms of group identification, transcending geographical and physical limitations, allowing for the cultivation of global fan communities with strong identity ties and meaningful engagement.
Cognitive Dissonance	Festinger (1957)	Illuminates how internal conflicts or dissonances arise when there is inconsistency between beliefs and behaviors.	In the metaverse, exploring different identities and experiences can lead to internal conflicts, highlighting the importance of creating brand experiences congruent with consumer values for engagement and loyalty.
Social Construction of Reality	Berger and Luckmann (1966)	Suggests that knowledge and understanding of the world are shaped through social interactions.	Offers brands in the metaverse a unique opportunity to actively participate in the social construction of reality, influencing perceptions of products, services, and cultural values, and shaping consumption experiences significantly.

Similarly, the theory of the extended self finds fertile ground in the metaverse, where personalization and identity expression through avatars and virtual goods can be used for highly targeted marketing strategies, transforming the way consumers perceive and relate to brands. This new paradigm requires a theoretical and managerial approach that considers the

complexities and nuances of consumer behavior in this emerging digital space, emphasizing the need for ongoing research that explores the unique dynamics of the metaverse.

As we conclude discussing fundamental theories of communication and social psychology in the metaverse, the need to fully understand the impact of

this new domain on human interactions and marketing becomes clear. Thus, it is essential to comprehend how immersion and interactivity elevate the user experience, transforming not just the perception of presence but also the very essence of consumer engagement and brand influence. The metaverse, therefore, represents not only a shift in the technological landscape but also a profound evolution in the way brands and consumers interact, highlighting the importance of adapting and evolving traditional theories to remain relevant in this new digital frontier.

#### IV. ENHANCED IMMERSION: INTERACTIVITY AND PRESENCE IN THE METAVERSE

The preceding discussion has laid a solid foundation for understanding how theories of communication and social psychology apply to the metaverse, setting the stage for a deeper exploration of the dynamics of immersion, interactivity, and presence. These features are central to the metaverse experience and have significant implications for influence marketing, redefining how brands engage with their consumers.

Immersion is a defining characteristic of the metaverse, augmented by virtual reality (VR) and augmented reality (AR) technology, creating a sense of physical and psychological presence in digital environments. Slater and Wilbur (1997) conceptualize immersion as the sensation of being present in a non-physical environment, which amplifies the influence and efficacy of communication within the metaverse. The sense of presence, as discussed by Biocca and Delaney (1995), is crucial for consumer engagement, as it deepens the influence of virtual narratives and interactions. Ryan's (2015) research on narrative immersion complements this view, suggesting that immersion facilitates deeper emotional and cognitive connections with content, enhancing persuasion and message retention.

Interactivity in the metaverse refers to the users' ability to influence and be influenced by the virtual environment in real-time. Steuer (1992) defines interactivity as the degree of control users have over the content and form of mediated communication in a medium. The bidirectional and multidimensional nature of interactivity in the metaverse allows for a range of complex interactions, increasing the potential for personalized and contextualized engagement. Sundar (2004) expands on this concept by introducing the Source Interactivity Theory, which suggests that interactivity enhances the user's perception of control, personalization, and agency, key elements for effective engagement in influence marketing.

Presence, or the sense of "being there" in the metaverse, is intensified by visual and auditory immersion, coupled with the ability to interact

meaningfully with the environment. Lombard and Ditton (1997) define presence as the illusion of non-mediation, where the user feels directly involved in the environment, without perceiving technology as an intermediary. Presence strengthens the user experience, influencing perceptions, attitudes, and behaviors towards brands and products. Gamberini et al. (2008) argue that presence increases persuasion, making brand experiences more impactful and memorable.

Csikszentmihalyi's (1990) flow theory is particularly relevant to the metaverse, describing a state of total immersion and enjoyment in the activity at hand. This flow experience can be facilitated by the metaverse's deep immersion, enhancing consumer engagement with brand content or virtual influencers. Nakamura and Csikszentmihalyi's (2002) research on the psychology of flow reinforces the idea that environments supporting flow experiences can significantly improve engagement and influence.

Additionally, Horton and Wohl's (1956) parasocial interaction theory offers a valuable perspective on how consumers form relationships with characters and influencers in the metaverse. The advanced interactivity of the metaverse allows interactions that transcend traditional parasocial relationships, creating more compelling and influential social bonds due to the metaverse's immersive and participatory nature. Cole and Leets' (1999) research on parasocial relationships in virtual environments suggests that these relationships can be especially potent for engagement in immersive digital contexts.

To clearly and robustly illustrate the main elements discussed, the following Table 3 synthesizes the concepts of immersion, interactivity, and presence, along with their implications for influence marketing in the metaverse:

**Table 3:** Elements of Influence Marketing in the Metaverse: Theories and Implications for Building Engagement and Brand Perception

Element	Description	Implications for Influence Marketing	Relevant Theories	Principal Authors
Immersion	The sensation of being physically present in a virtual environment, promoting deep engagement.	Increases receptiveness to brand messages and strengthens positive perceptions.	Flow Theory	Csikszentmihalyi (1990)
Interactivity	The ability to influence and be influenced by the environment and other users in real time.	Facilitates more meaningful and personalized relationships with consumers.	Interactivity Theory	Steuer (1992)
Presence	The sense of "being there" within the metaverse, enhancing the authenticity of the experience.	Reinforces authenticity and the effectiveness of social influence and brand endorsement.	Social Presence Theory	Short, Williams, & Christie (1976)
Flow	A state of total involvement where the individual is completely immersed in the activity.	Maximizes consumer engagement and satisfaction with brand experiences.	Flow Theory	Csikszentmihalyi (1990)
Parasocial Relationships	The formation of relationships similar to social ones with mediated figures, such as virtual influencers.	Enhances brand loyalty and trust through emotional bonds.	Para social Interaction Theory	Horton & Wohl (1956)

The emergence of the metaverse has a significant impact on the application and evolution of classic influence marketing theories, requiring reinterpretation in light of this new digital environment's unique characteristics. Immersion, intrinsic to the metaverse, enhances the sense of physical presence, promoting deep engagement that, as proposed by the Flow Theory (Csikszentmihalyi, 1990), increases receptivity to brand messages and strengthens positive perceptions. Similarly, interactivity, emphasized by the Interactivity Theory (Steuer, 1992), allows for bidirectional influence between brands and consumers, fostering more meaningful and personalized relationships. Likewise, the sense of presence, grounded in the Social Presence Theory (Short, Williams, & Christie, 1976), reinforces the authenticity and efficacy of social influence and brand endorsement, while parasocial relationships (Horton & Wohl, 1956), intensify with virtual influencers, enhancing brand loyalty and trust. This disruptive context of the metaverse not only challenges existing theories but also demands the development of new theoretical models that consider the complex dynamics of interaction and engagement in this expansive universe, marking a turning point in the literature on influence marketing.

As we conclude the discussion on this topic, it becomes evident that these dimensions profoundly redefine influence marketing strategies, paving the way for the discussion of the use and presence of artificial intelligence in the metaverse. This new chapter promises to explore how artificial intelligence (AI) technology can be used to further enhance the personalization of experiences in the metaverse, tailoring content and interactions in a way that uniquely resonates with each user. Thus, we naturally progress from analyzing the theoretical and applied foundations of immersion and interactivity to exploring how emerging technologies like AI can be instrumentalized to optimize and personalize influence in the metaverse, marking an

advancement in both the practice and theory of digital marketing.

## V. VIRTUAL INTELLIGENCE AND THE PERSONALIZATION OF INFLUENCE

The integration of artificial intelligence (AI) into influencer marketing, especially within the context of the metaverse, is revolutionizing how brands engage with consumers. This technological evolution, highlighted by Huang and Rust (2018), transforms the traditional influencer marketing paradigm, offering new opportunities for consumer engagement. Personalization, driven by AI, enables brands to deliver highly relevant content and messages to individuals, based on a deep understanding of their behaviors, preferences, and interaction history (Hwang & Chien, 2022). This is particularly effective in the metaverse, where user-generated data can be analyzed in real-time to dynamically tailor experiences, enhancing relevance and engagement.

Moreover, authenticity, a key component in building consumer trust and the effectiveness of influencer marketing, is being redefined by AI. Virtual influencers and metahumans, animated by AI, as discussed by Kaplan (2020), can now exhibit characteristics and behaviors that reflect genuineness and human emotions, thanks to advancements in natural language processing and machine learning. These Autonomous Intelligent Entities (AIE) can respond to inquiries, engage in meaningful dialogues, and even express opinions and feelings, mimicking the complexity of human interactions, which significantly enhances the consumer experience, making interactions more relatable and engaging (Hwang & Chien, 2022).

However, the application of AI in personalization and authenticity in influencer marketing also presents ethical challenges and concerns about privacy, as highlighted by Larsson (2020). The large-scale data



collection and analysis needed to fuel these AI systems raise questions about user consent and data security. Furthermore, the growing indistinguishability between human and virtual/metahuman influencers may confuse consumers, creating a need for transparency and regulation in this area (Bordegoni & Ferrise, 2023).

Advanced personalization, made possible by AI, promises to transcend traditional market segmentation boundaries, allowing the creation of user experiences that are truly unique to each individual. Tsuchiya and Motohashi (2020) highlight that this ability to deeply personalize interactions not only improves customer satisfaction but also enhances the efficiency of marketing strategies by ensuring that brand messages are always relevant and timely. A real-world example of this application can be seen in platforms like Spotify, which uses AI to personalize playlists, and Netflix, which adapts content recommendations for each user, demonstrating the efficacy of this approach in improving customer satisfaction and engagement.

Authenticity is amplified by the AI's ability to create virtual influencers and metahumans that can express emotions and react to stimuli in a convincingly human manner. Sundar, Tamul, and Wu (2020) argue that this "almost-human" quality of virtual influencers, combined with the personalization of interactions, can increase the effectiveness of brand communication by establishing an emotional connection with the audience. However, the use of AI to create these personalized and authentic experiences may establish a fine line between personalization and intrusion, as discussed by Wagner, Baccarella, and Voigt (2021), significantly impacting perceptions of privacy and the ethics of marketing influence.

The integration of artificial intelligence (AI) into influencer marketing, marked especially by the creation of Autonomous Intelligent Entities (AIEs), represents a revolution in how brand-consumer interactions are structured, introducing levels of personalization and authenticity previously unreachable (Hwang & Chien, 2022). This evolution not only redefines consumer expectations and sets new standards for the creation and delivery of influencer content but also highlights the need to address emerging ethical and privacy challenges. As we advance in understanding the capabilities and implications of these technologies, it becomes crucial to explore how they reconfigure the mechanisms of influence on consumer behavior and the need for a theoretical framework that integrates technological dynamics with traditional theories of marketing and consumer behavior (Bordegoni & Ferrise, 2023). This approach will not only provide a deep understanding of the impacts of AI on influencer marketing but also guide the evolution of effective strategies in an increasingly digital and connected environment, while discussing what is expected to consolidate in terms of values, procedures, practices,

and behaviors in this new hyper-virtual interaction landscape.

## VI. RECONFIGURED MECHANISMS OF INFLUENCE: AN INTEGRATIVE THEORETICAL FRAMEWORK

The reconfiguration of influence mechanisms in the metaverse context, mediated by the integration of artificial intelligence (AI) and the emergence of virtual influencers and metahumans, challenges the development of an advanced integrative theoretical framework. This framework must navigate the intersection of dynamic forces that are redefining engagement and influence strategies within this new digital domain (Bordegoni & Ferrise, 2023). The complexity of this mission reflects the multiplicity of variables at play, such as immersion, personalization, authenticity, and interactivity, uniquely influencing the influence process.

Incorporating the theory of social presence (Short, Williams, & Christie, 1976), which suggests that computer-mediated communication can be almost as rich and personal as face-to-face interaction, and the theory of self-categorization (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), which discusses how individuals identify with specific groups, influencing their behavior and perceptions, it is proposed that the increased presence and group identification within the metaverse intensify the effects of social influence. Immersion, provided by augmented reality (AR) and virtual reality (VR) technologies, amplifies the sense of presence (Slater & Wilbur, 1997), while advanced personalization enabled by AI allows for precise adaptation of influence messages to individual user preferences, increasing the relevance and effectiveness of communication (Huang & Rust, 2018).

Perceived authenticity, essential for the effectiveness of influence according to social influence theory (Cialdini, 2001), is redefined in the metaverse by the presence of virtual influencers and metahumans. These agents, despite being artificial, can be viewed as authentic sources of information and inspiration, thanks to the sophistication of AI technologies that allow for expressions and behaviors that accurately mimic human nuances (Kaplan & Haenlein, 2020).

Interactivity is exacerbated in the metaverse by the users' ability to influence and be influenced in a continuous feedback cycle, creating a dynamic environment where influence can be exercised in a more direct and adaptable manner (Steuer, 1992). This highlights the need to understand how real-time actions and reactions of users shape influence processes.

It is also highlighted that privacy and the potential manipulation of users through hyper-personalization require establishing a sense of respect for user autonomy and ensuring transparency in AI

operations are imperatives to preserve the integrity of the influence process, considering the importance of ethics in the design and implementation of AI systems (Lou & Yuan, 2019).

For example, studies might investigate the impact of the sense of immersive presence in the metaverse on persuasion or how real-time interaction with virtual influencers and metahumans alters the dynamics of trust and credibility, a field that could be enriched by Walther's (1996) investigation into computer-mediated interpersonal communication and his theory of hyperpersonalization, suggesting that computer-mediated communication can sometimes be more intimate and personal than face-to-face interactions.

Transparency in the use of these entities, the protection of user data privacy, and ensuring that interactions promote positive values become critical aspects. Brands must, therefore, prioritize not only the effectiveness of influence but also compliance with fundamental ethical principles, reinforcing consumer trust and loyalty – crucial elements for success in the immersive digital environment (Bordegoni & Ferrise, 2023).

To further deepen the understanding of reconfigured influence mechanisms in the metaverse, it is essential to expand the theoretical discussion to include an analysis of how technological advancements, especially in AI, can be utilized to foster more ethical and responsible communication. The inclusion of ethical

technology design principles, as discussed by Friedman, Kahn, and Borning (2008), regarding the consideration of human values in the development of interactive systems, can provide vital guidelines for the development of virtual influencers and metahumans that respect user autonomy and privacy.

Moreover, integrating insights from social psychology and behavioral sciences can enrich the understanding of influence processes in the metaverse. The heuristic-systematic processing theory (Chaiken, 1980; Petty & Cacioppo, 1986), for example, can offer a lens through which to understand how messages from virtual influencers are processed by consumers, whether through critical evaluation (systematic processing) or based on superficial cues (heuristic processing).

To deepen our understanding of interactive dynamics in the metaverse, it is crucial to investigate emerging phenomena, such as the co-creation of content between virtual influencers/metahumans and users. This collaboration can play a significant role in the perception of authenticity and the level of user engagement, in addition to exploring the long-term consequences of immersion in the metaverse for aspects of identity and online socialization. Table 4, presented below, summarizes the main axes of these investigations, offering a detailed overview of how these interactions can reshape online experiences and influence both the construction of identity and socialization practices in the virtual environment.

**Table 4:** Principles and Practices of Engagement in the Metaverse: Immersion, Personalization, Authenticity, Interactivity, and Ethics in Building Brand Experiences

Dimension	Description	Influence Mechanisms	Ethical Considerations	Implications for Practice	Relevant Authors
Immersion	Experience of being present in a virtual environment, facilitated by VR/AR.	Deepens brand connection through immersive experiences. (Slater & Wilbur, 1997)	Avoid emotional manipulation; ensure positive experiences.	Create immersive content that respects user integrity, promoting experiences that maximize presence.	Slater & Wilbur (1997)
Personalization	Tailoring messages and interactions to individual interests, via AI.	Makes brand communication more relevant and persuasive, increasing relevance through precise adaptation to individual preferences. (Huang & Rust, 2018)	Protect data privacy; be transparent about AI use.	Develop recommendation systems that value privacy, using AI ethically to personalize the experience without compromising user privacy.	Huang & Rust (2018)
Authenticity	Capacity of digital influencers to genuinely reflect human qualities.	Strengthens brand trust and credibility, allowing virtual influencers and metahumans to be seen as authentic sources. (Kaplan & Haenlein, 2020)	Prevent unrealistic expectations; promote diversity and inclusion.	Select and create influencers that align with brand values, focusing on creating characters that offer authentic and inclusive representations.	Kaplan & Haenlein (2020)
Interactivity	Ease of reciprocal interaction in the metaverse.	Encourages meaningful relationships, enhancing brand influence through a dynamic environment of continuous feedback. (Steuer, 1992)	Ensure consent in data use; avoid over-personalization.	Encourage interactions that foster an active and engaged community, prioritizing the construction of spaces for ethical and consensual interaction.	Steuer (1992)

Social Presence	Perception of being socially connected with others in the metaverse.	Utilizes social dynamics to amplify brand influence, intensifying the effects of social influence through increased presence and group identification. (Short, Williams, & Christie, 1976; Turner et al., 1987)	Be clear about the artificial nature of virtual influencers.	Foster metaverse spaces that encourage support and authentic interaction, creating environments that promote social connection and community building.	Short, Williams, & Christie (1976); Turner et al. (1987)
Ethics and Transparency	Guiding principles for the implementation of technologies and strategies.	Maintains consumer trust and loyalty in the long term, emphasizing the importance of ethics and transparency in all operations. (Friedman, Kahn, & Borning, 2008)	Essential in all dimensions to prevent data misuse.	Establish clear policies and communicate openly about AI practices, ensuring that all actions promote positive values and respect user autonomy.	Friedman, Kahn, & Borning (2008)

The insertion of influence marketing in the metaverse represents an evolution of traditional theories, requiring adaptation to new immersive, personalized, and interactive virtual realities. The dimensions of immersion, personalization, authenticity, interactivity, and social presence, grounded by authors like Slater & Wilbur (1997), Huang & Rust (2018), Kaplan & Haenlein (2020), Steuer (1992), Short, Williams, & Christie (1976), and Turner et al. (1987), emphasize the need to create experiences that not only deeply and meaningfully engage users but also respect their privacy and promote ethics and transparency, as highlighted by Friedman, Kahn, & Borning (2008). In the metaverse, personalization and authenticity gain new layers of complexity, as AI enables increasingly sophisticated interactions, while virtual influencers and metahumans present unique challenges to credibility and trust. Interactivity and social presence, in turn, reconfigure influence dynamics by intensifying the sense of connection and belonging. Real-world examples, such as immersive virtual events conducted by global brands and the adoption of digital influencers that resonate with authentic and inclusive values, illustrate the practical application of these theories in the emerging context of the metaverse, highlighting the importance of an approach that balances technological innovation with ethical and humanistic considerations.

This reconfigured understanding of influence mechanisms in the metaverse serves as a crucial turning point in the literature on influence marketing, paving the way to explore how such dynamics impact not only brand perception but also consumer engagement at unprecedented levels (Hwang & Chien, 2022). The fluid transition to the next stage of research will involve the concrete measurement of these impacts, analyzing how immersion, personalization, authenticity, interactivity, and social presence translate into tangible value for brands and enriching experiences for users.

## VII. FROM VIRTUAL TO VALUE: MEASURING THE IMPACT ON ENGAGEMENT AND BRAND PERCEPTION

Measuring the impact of virtual influencers and metahumans on consumer engagement and brand perception represents a multifaceted challenge, necessitating a methodological approach that transcends traditional metrics of views or clicks. While useful, these metrics fail to capture the complexity of human interactions within the metaverse, nor the depth of influence exerted on consumer perception and behavior (Jeon, 2022). Recent academic literature, including authors like Kozinets (2010), underscores the importance of adapting qualitative methodologies, such as netnography, to grasp the underlying social and cultural dynamics influencing these perceptions in the digital realm. Kozinets argues that netnography allows for a rich and contextualized analysis of online communities, an approach that becomes even more relevant when applied to the study of the metaverse, a space where the boundaries between the real and virtual increasingly blur.

To complement this qualitative analysis, sentiment analysis and natural language processing (NLP) offer powerful means of assessing consumer reactions at scale, enabling a precise interpretation of the overall sentiment towards specific brands or campaigns. Authors like Pang & Lee (2008) demonstrate how these technologies can be used to extract valuable insights from large volumes of textual data, providing a comprehensive understanding of consumer attitudes and emotions.

Additionally, the Net Promoter Score (NPS), a metric proposed by Reichheld (2003), stands out for its simplicity and effectiveness in measuring consumer loyalty. Its adaptation to evaluate users' willingness to recommend brands after interactions with virtual influencers or metahumans could provide a direct and powerful measure of the effectiveness of these influences on brand perception over the long term.

However, to capture the essence of engagement in the metaverse, it is crucial to incorporate

specific metrics of this environment, such as the duration and frequency of virtual interactions, participation in brand events or experiences, and the creation of user-generated content in response to these initiatives. These metrics, still under development by researchers at the forefront of digital marketing and information science, more accurately reflect the level of consumer immersion and activity, moving beyond traditional engagement indicators (Jeon, 2022; Lee et al., 2023).

Thus, an integrated approach that combines these diverse methodologies and metrics is proposed, creating a comprehensive framework to assess the impact of virtual influencers and metahumans. This approach must be inherently flexible and adaptable, capable of keeping pace with rapid technological advancements and changes in the interaction dynamics of the metaverse (Lee et al., 2023). Such an effort not only advances the theoretical corpus of influence marketing literature but also provides practitioners with a robust set of tools to navigate and capitalize on the complexities of this new digital territory.

The inherent complexity of these digital interactions demands a meticulous approach in selecting and applying suitable metrics and methodologies to assess the impact of these influencers

on brand perception and consumer decision-making. The following table presents a compilation of contemporary approaches, describing their methodologies, ethical considerations, practical implications, and potential for evolution, reflecting the need for a multifaceted analysis that encompasses both the emotional and behavioral aspects of consumer engagement (Jeon, 2022).

This array of metrics - from Sentiment Analysis to Netnography, through to the Net Promoter Score (NPS), adapted Customer Lifetime Value (CLV), and Metrics of Immersion and Interactivity - illustrates a spectrum of tools that marketing professionals can employ to decipher the complex web of interactions in the metaverse. Each approach, with its specific tools, ethical considerations, and practical implications, contributes to a deeper and more nuanced understanding of the impact of digital influencers. Moreover, the potential for evolution of these metrics indicates a pathway for continuous adaptation and improvement as new technologies and consumer behaviors emerge. Thus, Table 5 serves not only as a guide for current influence marketing practice but also signals future directions for research and development in this rapidly evolving area.

**Table 5:** Metrics and Approaches for Evaluating Engagement with Influencers in the Metaverse Context

Metric/ Approach	Description	Methodologies and Tools	Ethical Considerations	Implications for Practice	Potential for Evolution
Sentiment Analysis	Assessment of users' emotional reactions to interactions with virtual influencers and metahumans.	Natural Language Processing (NLP) and AI to analyze comments and feedback on social media.	Ensure transparency in data collection and respect user privacy.	Allows for content strategy adjustments based on audience emotional response.	Will evolve with improvements in NLP accuracy and AI techniques.
Netnography	Study of online communities in the metaverse to understand culture and user interactions.	Qualitative observation techniques and content analysis of forums, chats, and virtual social interactions.	Informed consent required for observation and behavior analysis.	Provides deep insights into brand perception and group dynamics.	Adaptation to new virtual platforms and integration of real-time analyses.
Net Promoter Score (NPS)	Measure of users' willingness to recommend the brand after interacting with digital influencers.	Surveys and questionnaires tailored to the metaverse context.	Importance of maintaining user anonymity and ethically interpreting data.	Evaluates the direct impact of metaverse interactions on brand loyalty.	Enhancement with instant feedback and predictive analysis techniques.
Adapted Customer Lifetime Value (CLV)	Estimate of the long-term value of customers engaged by virtual influencers and metahumans.	Analytical models incorporating engagement, conversion, and retention data in the metaverse.	Consider the impact of marketing actions on consumer perception and well-being.	Guides investment strategies in digital influencers based on ROI.	Development of more sophisticated predictive models with AI advancements.



Immersion and Interactivity Metrics	Specific measures of user engagement in the metaverse, such as duration of stay and frequency of interactions.	Behavior tracking technologies and interaction data analysis.	Balance detailed data collection with respect for privacy and user autonomy.	Enables adjustment of environments and content to maximize immersive experience and interactivity.	Expansion with new forms of interaction and sensory feedback in the metaverse.
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The transition from classic theories of influence marketing to the disjointed context of the metaverse demands a profound reevaluation of their premises and applicabilities. The metrics and approaches described above, though conceived in a scenario preceding the emergence of the metaverse, find fertile ground for adaptation and evolution in this new digital environment. Sentiment analysis, for example, greatly benefits from the advanced capabilities of Natural Language Processing (NLP) and Artificial Intelligence (AI), allowing for a more nuanced understanding of users' emotional reactions to virtual influencers and metahumans. This methodology, at its core, reflects the theory of affective response within influence marketing, but its application in the metaverse enhances the ability to adjust content strategies in real-time, an evolution that Kozinets (2002) anticipated when exploring netnography in online communities.

Similarly, the adaptation of the Net Promoter Score (NPS) and Customer Lifetime Value (CLV) to the context of the metaverse illustrates a practical application of customer value theory and brand loyalty in a virtual immersive space. These metrics, grounded in the works of Reichheld (2003) and Kumar (2008), respectively, gain a new dimension when applied in environments where interactions are mediated by avatars and virtual experiences, highlighting the importance of engagement strategies that transcend the physical.

Netnography, with its emphasis on qualitative observation techniques, naturally adapts to the metaverse, allowing for a profound understanding of the cultural and social dynamics of virtual communities. This methodological approach, deeply rooted in the studies of Kozinets (2002), finds an expanded field in the metaverse, where social interactions and cultural expressions manifest in complex and multifaceted ways.

Lastly, the metrics of immersion and interactivity highlight the evolution of understanding engagement in the context of influence marketing. These metrics reflect a new era of behavioral analysis that goes beyond traditional web tracking capabilities, delving deep into the sensory and emotional experiences of users in the metaverse. Such approaches are a testament to the continuous evolution of influence marketing theories, adapting to new digital realities in a way that maintains the relevance and efficacy of these theories in increasingly virtual environments.

Thus, the metaverse not only challenges but also enriches the theoretical corpus of influence marketing, offering new insights into consumer behavior and the efficacy of digital influence strategies. This emerging paradigm requires that both academics and marketing professionals not only rethink existing metrics and methodologies but also consider the ethical and managerial implications of these strategies in an increasingly immersive and interactive world (Jeon, 2022).

The meticulous exploration of metrics and approaches to assess the impact of virtual influencers and metahumans on engagement and brand perception reveals a complex landscape where advanced technology and human interactions intertwine in unprecedented ways. This deep dive into the dynamics of the metaverse underlines the potential of these new digital tools to transform how brands connect with their audiences, offering adaptive strategies that leverage the immersive and interactive potential of these virtual environments (Lee et. al., 2023). However, as this digital journey unfolds, critical questions emerge regarding the responsibility and ethics of using these technologies.

The ability to collect, analyze, and act upon vast quantities of user data – often invisibly and in real-time – raises significant concerns about privacy, consent, and the subtle yet powerful influence these virtual environments can exert on individuals' decisions and perceptions. As such discussions advance, it becomes relevant to address these ethical concerns head-on, ensuring that innovation in influence marketing is conducted responsibly and transparently, with users' well-being at the forefront.

## VIII. ETHICAL CHALLENGES AND CONSIDERATIONS IN THE METAVERSE ERA

The integration of these new technologies into digital marketing raises questions about transparency, authenticity, and the digital rights of consumers, forcing marketers to navigate a morally complex environment. Transparency is crucial, especially when considering the use of virtual influencers and metahumans, where clear disclosure of the artificial nature of these entities is essential for maintaining consumer trust. Jean Baudrillard (1994), in his reflections on simulation and hyper-reality, argues that the distinction between the real and the represented becomes increasingly blurred in

digital environments, highlighting the importance of transparency to avoid deception. Marwick and Boyd (2011), on the other hand, discuss authenticity in social media as a critical factor for building meaningful relationships, indicating that the simulation of human behaviors by digital entities can complicate the perception of authenticity.

Furthermore, consumer digital rights, particularly regarding privacy and data use, are fundamental (Zuboff, 2019). The ability of virtual influencers to collect and analyze large volumes of consumer data raises concerns about surveillance and manipulation. Shoshana Zuboff (2019) coined the term "surveillance capitalism" to describe the collection of personal data without explicit consent, which can erode privacy and individual autonomy.

To address these challenges, it is necessary for brands to adopt clear digital ethics policies, establishing guidelines for the responsible use of virtual influencers. This includes transparent disclosure practices, maintaining authenticity in digital interactions, and rigorous protection of consumer privacy and data rights (Bibri & Allam, 2022).

Building an ethical framework for action in the metaverse requires collaboration among industry stakeholders, academics, and regulators, ensuring that technological innovations are used ethically. Nissenbaum (2009) advocates that privacy should be

considered in the context of the appropriate flow of information, suggesting that data collection and use practices be guided by clear privacy norms.

Algorithmic fairness also emerges as a challenge, with the increasing use of algorithms to mediate interactions in the metaverse. Eubanks (2018) highlights how automated systems can perpetuate biases, underlining the need to develop transparent and fair AI. Moreover, the sustainability of the metaverse, in terms of its environmental impact, is a growing concern, with Brundtland (1987) defining principles for sustainability that can guide the minimization of the metaverse's ecological footprint.

Educating users about their digital rights and the use of their information is crucial for promoting a culture of transparency and accountability. By balancing technological innovation with ethical responsibility, brands can lead by example, creating marketing experiences that are engaging, fair, and respectful of consumers' rights and well-being, establishing a solid foundation for sustainable growth in the digital ecosystem (Bibri & Allam, 2022).

Thus, Table 6 below presents a detailed ethical framework for action in the metaverse, encompassing ethical components, theoretical elements, the role of stakeholders, technological use, strategies for efficacy, and other relevant elements for the proposed theoretical discussion.

**Table 6:** Ethical Principles and Strategies for Responsible Engagement in the Metaverse

Ethical Component	Theoretical Elements	Role of Stakeholders	Technological Utilization	Strategy for Effectiveness	Additional Elements
Transparency	Simulation and Hyper-reality (Baudrillard, 1994)	Brands: Adopt transparent practices	Virtual influencers and metahumans	Clear policies on digital ethics	Educating users on digital rights
Authenticity	Authenticity in Social Media (Marwick and Boyd, 2011)	Consumers: Demand authenticity	Simulation of human behaviors	Maintaining authenticity in interactions	Open and collaborative dialogue among stakeholders
Digital Rights of Consumers	Surveillance Capitalism (Zuboff, 2019)	Regulators: Establish privacy standards	Consumer data collection and analysis	Rigorous protection of privacy rights	Appropriate flow of information (Nissenbaum, 2009)
Privacy	Appropriate Information Flow (Nissenbaum, 2009)	Academics: Research ethical impacts	Personal data management	Clear privacy standards	Development of transparent and fair AI
Algorithmic Justice	Biases in Automated Systems (Eubanks, 2018)	AI Developers: Create fair algorithms	Algorithmic decision-making	Evaluation and correction of algorithmic biases	Sustainability of the metaverse
Sustainability	Principles for Sustainability (Brundtland, 1987)	Industry: Minimize environmental impact	Technologies for reducing ecological footprint	Sustainable practices in development	Engaging users in sustainable practices

Table 6 represents a comprehensive structure for addressing ethical challenges in the metaverse, incorporating the complexity of new digital environments. It highlights the importance of multidisciplinary collaboration to tackle ethical issues, the need for transparency and authenticity to maintain consumer trust, and the relevance of considering the

social and environmental impacts of emerging technologies. Furthermore, it emphasizes the importance of educating and involving users in the process, ensuring they are informed about their rights and the use of their information, thereby promoting a more ethical and sustainable digital ecosystem.

Integrating theories of influence marketing into the innovative context of the metaverse requires a critical reassessment of their applications and implications, both from a managerial and theoretical perspective. While Baudrillard (1994) warned about the erosion of the boundaries between real and simulated, this distinction becomes even more critical in the metaverse, where virtual influencers operate. Brands and marketers must, therefore, navigate this new territory with unprecedented transparency, clarifying the artificial nature of these influencers to maintain consumer trust. Simultaneously, authenticity, as discussed by Marwick and Boyd (2011), acquires a new dimension, challenging us to redefine what we consider genuine in a world where the simulation of human behaviors becomes normative.

The issue of consumer digital rights, amplified by Zuboff's (2019) concept of surveillance capitalism, assumes renewed urgency in the face of the expansive data collection capabilities in the metaverse. Thus, regulators and brands must collaborate to establish a balance between innovation and privacy, ensuring that users are aware of and in control of how their information is used. Moreover, algorithmic fairness, highlighted by Eubanks (2018), and sustainability, according to the principles of Brundtland (1987), call attention to the need to develop technologies and algorithms that not only respect human and social rights but also minimize the environmental impact of this new digital universe.

Therefore, applying these theories requires an adaptation to their disjunctive peculiarities. Real-world examples, such as Gucci's use of digital influencers in virtual campaigns, illustrate the need for transparency and authenticity. Similarly, Meta's (formerly Facebook) implementation of privacy practices on its virtual reality platforms highlights efforts to protect consumer digital rights.

As ethical challenges and considerations inherent in the emerging metaverse era arise, it becomes necessary for brands, regulators, and consumers to adopt a reflective and proactive approach. The complexity of issues such as transparency, authenticity, and consumer digital rights not only underscores the need for robust ethical governance but also paves the way for rethinking engagement and innovation strategies. In this scenario, the natural next step is to explore how brands can operationalize these ethical principles in a way that not only respects users' rights and expectations but also capitalizes on the unique opportunities the metaverse offers (Bibri & Allam, 2022).

This implies a careful transition from theories and ethical guidelines to concrete practices and adaptive strategies, ensuring that technological innovation advances hand in hand with social and environmental responsibility. Such an approach will not only strengthen consumer trust and loyalty but also

establish a precedent for sustainable and ethical growth in the vast and still unexplored territory of the metaverse.

## IX. PRACTICAL AND STRATEGIC IMPLICATIONS FOR BRANDS IN THE METAVERSE

In this constantly evolving digital environment, marketing strategies must be adaptive, innovative, and, above all, user-centered. In the metaverse, the creation of immersive and interactive experiences stands out as a crucial strategy for consumer engagement. The three-dimensional nature and interactivity of the metaverse offer unique opportunities for brands to develop deeply engaging user experiences. According to Bailenson (2018), immersive virtual environments can enhance social presence and emotional connection among users, which is fundamental for effective consumer engagement in the metaverse. Therefore, brands should focus on creating exclusive metaverse events, such as virtual product launches, personalized brand experiences, and opportunities for consumers to interact with products in innovative ways. Such strategies can not only boost engagement but also enhance brand perception and consumer loyalty.

Authenticity and transparency are crucial for building and maintaining consumer trust in the metaverse. As Edelman (2020) suggests, trust is a key factor influencing consumers' purchasing decisions. In the metaverse, this means brands must be transparent about the use of virtual influencers, data collection policies, and any AI elements mediating interactions with consumers. Moreover, brands should strive to ensure that all interactions and content in the metaverse reflect their authentic values and mission. This may involve co-creating content with consumers, allowing their voices and experiences to influence the brand narrative, as suggested by Schau and Gilly (2003).

Personalization, powered by AI, should be balanced with ethical considerations and respect for user privacy. Rust and Huang (2014) highlight the importance of effective personalization that enhances the consumer's perceived value while maintaining a careful balance between relevance and privacy. Brands should, therefore, employ personalization strategies that use data ethically, ensuring users' preferences and boundaries are respected. This will not only improve the consumer experience but also strengthen trust in the brand.

Brands must also prioritize inclusion and diversity in the metaverse, creating spaces that are welcoming and accessible to all. The use of transparent and auditable AI technologies can help avoid bias and promote algorithmic fairness, as discussed by Binns (2018). By actively promoting inclusion and diversity, brands not only fulfill an ethical responsibility but also expand their reach and resonance with a broader spectrum of consumers.

The environmental impact of the metaverse is an important consideration for brands. Adopting sustainable practices, such as using low-energy technologies and supporting carbon offset initiatives, can demonstrate a brand's commitment to sustainability. Jones, Comfort, and Hillier (2016) emphasize the importance of sustainability in business practices, arguing that brands adopting a proactive stance towards sustainability can enhance their image and attract environmentally conscious consumers.

Exploring the metaverse's potential requires brands to balance innovation with ethical responsibility. By adopting immersive engagement strategies, promoting authenticity and transparency, practicing ethical personalization, ensuring inclusion and diversity, and committing to sustainability, brands can not only thrive in the metaverse but also contribute to a fairer and more sustainable digital ecosystem. These practices not only advance the theoretical corpus of influence marketing literature but also offer guidance for brands looking to successfully navigate the emerging digital domain of the metaverse.

Adopting innovative, user-centered, and ethically responsible approaches prepares users for meaningful engagement in the metaverse but also highlights the need for further academic investigation. This need signals the importance of establishing a solid research agenda that can guide future studies. Such an agenda should explore not only the emerging dynamics between consumers and brands but also assess the social, economic, and environmental impacts of this new digital ecosystem. Therefore, the logical next step is to map out future pathways for research in the metaverse, aiming not only to deepen understanding but also to anticipate the transformations that will define the next era of digital interaction.

## X. FUTURE PATHWAYS FOR METAVERSE RESEARCH: A PROPOSED RESEARCH AGENDA

Building on the prior discussion regarding practical and strategic implications for brands in the metaverse, it is clear that while the metaverse presents unparalleled opportunities for consumer engagement, it also poses challenges that necessitate thorough academic investigation. Thus, a research agenda is outlined to explore future pathways in metaverse studies, addressing critical areas that require deeper understanding and analysis.

The rise of virtual influencers and metahumans in the metaverse introduces new questions regarding their effectiveness compared to human influencers. Future research could examine how perceptions of authenticity and trust differ among these types of influencers and the impact of these perceptions on

influence efficacy (Kozinets, 2010; Marwick & Boyd, 2011).

Understanding how immersion in the metaverse affects consumer behavior, including decision-making, attitude formation, and brand loyalty, is crucial. Investigating these aspects may uncover insights into how brands can optimize their strategies to better align with consumer expectations and preferences (Schau & Gilly, 2003).

The complexity of the metaverse and the use of AI raise significant ethical and normative issues, especially regarding privacy, consent, and algorithmic bias. Research in this area can contribute to the development of ethical frameworks and regulatory guidelines that ensure fair and responsible practices in the metaverse (Nissenbaum, 2009; Eubanks, 2018).

Given the growing concern for sustainability, investigating the environmental impact of the technological infrastructure required to support the metaverse is important. Future studies could assess ways to minimize the ecological footprint of these digital technologies and promote sustainable practices within the metaverse (Jones, Comfort, & Hillier, 2016).

Exploring how the metaverse can promote or inhibit inclusion and diversity is essential. Research in this domain may provide insights into how metaverse experiences can be designed to be accessible and representative of a wide range of users, contributing to a more inclusive digital space (Binns, 2018).

Understanding the growth trajectory of the metaverse and its market potential is crucial for strategists and investors. Research employing economic modeling and forecasting can help anticipate future trends, guiding informed strategic decisions for stakeholders across various sectors (Bellman et al., 2011).

A critical area that requires attention is the interoperability among different platforms and environments in the metaverse. The ability to seamlessly transfer data, digital assets, and user experiences across platforms is crucial for the sustainable growth of the metaverse. Research focused on developing and implementing universal technical standards can facilitate interoperability, enhancing user experience and fostering innovation (Werbach, 2018).

With consumer education becoming increasingly important, the educational potential of AR and VR in the metaverse warrants investigation. Studies could explore how these technologies can be used to inform consumers about products, services, and social issues in an engaging and interactive manner, contributing to more informed purchasing decisions (Rauschnabel, Rossmann, & tom Dieck, 2017).

The metaverse also presents new business models and monetization opportunities that significantly differ from the physical world. Research on virtual



economy, including value creation, transactions, and digital currencies, can offer valuable insights for businesses looking to capitalize in this emerging space (Castronova, 2007).

Understanding the long-term effects of immersion in the metaverse on users' psychological and social well-being is essential. Studies examining the consequences of time spent in the metaverse, digital identity formation, and virtual social relationships can inform responsible design and usage practices (Yee, Ducheneaut, & Nelson, 2012).

As the metaverse expands, issues of security and governance become increasingly significant. Investigating how to maintain virtual environments safe for users while balancing freedom of expression and innovation is crucial. Research can explore governance frameworks and security mechanisms suitable for the metaverse (Gorwa, 2020).

Assessing how the metaverse can contribute to sustainable development goals and CSR practices is another important research area. Studying how

businesses can use the metaverse to promote sustainability, social inclusion, and civic engagement can guide responsible corporate strategies (Visser, 2010).

By exploring these areas, the proposed research agenda for the metaverse not only addresses critical gaps in existing literature but also lays the groundwork for future investigations that can guide the responsible and ethical development of the metaverse. Such a multidisciplinary approach is essential for understanding the complexities of this new digital domain and for maximizing its positive potential for individuals, businesses, and society as a whole. This comprehensive approach ensures that as we navigate and shape the future of the metaverse, we do so with careful consideration of the ethical, social, and environmental implications.

Given the proposed framework, Table 7 is established, which conceptually details the proposed research agenda for the metaverse, adapting the model provided to illustrate critical areas of study.

*Table 7:* Navigating the Metaverse: A Research Agenda

Research Area	Description	Methodologies and Tools	Challenges/ Questions	Expected Impact	Key References
Efficacy of Virtual and Metahuman Influencers	Investigate how perceptions of authenticity and trust influence the effectiveness of these influencers.	Sentiment analysis, case studies, field experiments.	Differences in perception between virtual and human influencers.	Better understanding of how to engage consumers.	Kozinets, 2010; Marwick and Boyd, 2011
Consumer Behavior in the Metaverse	Study how immersion affects purchasing decisions and brand loyalty.	Netnography, interaction tracking, behavioral analyses.	Measuring the influence of immersion on attitudes and behaviors.	Insights to optimize brand strategies.	Schau and Gilly, 2003
Ethical and Regulatory Challenges	Assess ethical issues and develop guidelines for practices in the metaverse.	Documentary research, legal analysis, discussion forums.	Balancing innovation with consumer protection.	Ethical frameworks to guide brand actions.	Nissenbaum, 2009; Eubanks, 2018
Virtual Economy and Business Models	Explore new business models and monetization in the metaverse.	Economic modeling, market studies, trend analysis.	Identifying viable monetization strategies.	Guide businesses in capitalizing on the metaverse.	Castronova, 2007
Psychological and Social Impact	Examine the effects of the metaverse on user well-being.	Psychological surveys, longitudinal studies, social network analyses.	Understanding the consequences of prolonged engagement.	Promote healthy and responsible use of the metaverse.	Yee, Ducheneaut, & Nelson, 2012
Security and Governance	Investigate mechanisms to ensure user safety and effective governance.	Case studies, policy analysis, stakeholder workshops.	Developing governance practices that support freedom and safety.	Establish standards for a safe and inclusive metaverse.	Gorwa, 2020
Sustainability and CSR	Assess how the metaverse can contribute to sustainable development and CSR.	Environmental impact analyses, corporate sustainability studies.	Minimizing environmental impact and promoting inclusion.	Direct the metaverse towards sustainable and responsible practices.	Visser, 2010

Table 7 outlines a set of research proposals that, collectively, have the potential to significantly advance the frontier of literature on influencer marketing and digital marketing, particularly in the innovative and challenging context of the metaverse. By investigating topics such as the efficacy of virtual influencers and metahumans, immersive consumer behavior, ethical and normative dilemmas, new economic business models, psychological and social impact, security, governance, sustainability, and corporate social responsibility in the metaverse, these proposals address critical areas that are fundamental to understanding and maximizing the potential of marketing in the metaverse.

The adoption of varied methodologies, from sentiment analysis and netnography to economic modeling and environmental impact analyses, reflects the complexity and multidimensionality of the metaverse. The challenges identified, such as measuring the influence of immersion on consumer attitudes and balancing innovation with consumer protection, highlight the specific nuances of marketing in the metaverse that require innovative and adaptive solutions. It is hoped that by addressing these challenges, the proposed research will not only offer practical insights for optimizing brand strategies and promoting sustainable and responsible practices but will also enrich influencer marketing theory by adapting it to the peculiarities of the metaverse. Thus, these proposals represent a qualitative leap for digital marketing literature, promoting a deeper and more integrated understanding of how brands can navigate and thrive in this new hypervirtual domain.

## XI. CONCLUSION

Through the analysis proposed in this article, the emerging complexity of the metaverse and its impact on influencer marketing were addressed, highlighting the crucial role of virtual influencers and metahumans. The discussion focused on integrating artificial intelligence (AI) to create innovative, personalized, and authentic brand experiences, while raising significant ethical questions about transparency, authenticity, and the digital rights of consumers.

The key findings of this study reveal that, while the metaverse offers unprecedented opportunities for consumer engagement through immersive and personalized experiences, it also introduces complex challenges that require careful consideration of ethical implications. The response to the research question and objectives underscored the need for marketing strategies that not only leverage advanced technological capabilities but are also grounded in responsible and ethical practices.

This work fills an important gap in the literature by providing an integrative theoretical framework that maps the specific mechanisms of influence in the metaverse, operating in conjunction with AI and virtual

influencers. The theoretical contributions of this study lie in its holistic approach to understanding the dynamics of influencer marketing in the metaverse, while the practical contributions offer strategic guidance for brands seeking to engage consumers in this new digital domain.

However, this study is not without limitations. The rapid technological evolution of the metaverse and the emerging nature of virtual influencers and metahumans mean that current insights may quickly become outdated. Moreover, the research is based on existing theories and concepts that may not fully capture the unique nuances of interactions in the metaverse.

For future research, it is suggested that empirical methodologies be explored that can capture quantitative and qualitative data on consumer behavior in the metaverse. This includes longitudinal studies that track changes in consumer attitudes and behaviors as they become more immersed and familiar with the metaverse. Additionally, investigations into the long-term psychological and social impacts of engagement in the metaverse may offer valuable insights into user well-being.

Another area of interest for future research is the development of ethical and transparent AI technologies that can support the creation of virtual influencers and metahumans. This includes the enhancement of algorithms to ensure fairness, bias minimization, and the protection of user privacy.

Exploring influencer marketing in the metaverse represents a promising field for academic research and practical innovation. This study sheds light on the opportunities and challenges presented by this new digital domain, outlining a path for future investigations that can enrich our understanding and practice of marketing in the metaverse era. As we move forward, it is essential that we continue to question, experiment, and learn, always with a critical eye toward the ethical and social implications of our digital strategies.

Furthermore, the evolution of the metaverse opens new avenues for exploring how brands can effectively measure the return on investment of their marketing initiatives in this environment. Future research could develop and validate specific analytical models for the metaverse that consider not just traditional performance indicators but also unique virtual environment metrics, such as the quality of immersion, the depth of social interaction, and the impact of virtual experiences on brand loyalty. This approach would help brands to optimize their strategies and resource allocation in the metaverse more effectively.

Another emerging theme that deserves attention is the construction and maintenance of community in the metaverse. The dynamics of community formation, engagement, and member retention in immersive virtual environments offer a rich field for investigation.

Researchers can explore how brands can foster vibrant and engaged communities in the metaverse, what factors influence active user participation, and how these communities contribute to the perceived value of the brand and consumer advocacy.

The issue of accessibility in the metaverse also represents a significant challenge and opportunity for future research. As this digital space continues to expand, it is vital to ensure that it is inclusive and accessible to a wide range of users, including those with disabilities or technological limitations. Studying how user interfaces (UI) and user experiences (UX) in the metaverse can be designed to be universally accessible will not only increase the reach of marketing initiatives but also promote broader inclusion in the digital space.

The integration of emerging technologies, such as generative AI, blockchain, and non-fungible tokens (NFTs), into influencer marketing in the metaverse, offers fertile ground for research. These technologies can enable new forms of content creation, digital ownership, and consumer engagement, whose practical and ethical implications deserve detailed exploration.

Given the global nature of the metaverse, an intercultural analysis of marketing strategies and consumer behavior in this virtual environment may reveal valuable insights into how brands can tailor their approaches to different audiences around the world. Understanding cultural nuances in digital engagement can help brands create messages and experiences that resonate more effectively with global audiences.

By addressing these areas, future research in the metaverse will not only advance academic knowledge but also provide valuable practical guidance for marketers seeking to innovate and create value in this rapidly evolving digital space. This path for research underscores the importance of a multidisciplinary and collaborative approach, bringing together academics, practitioners, and technology developers, to explore the full potential of the metaverse in a responsible and inclusive manner.

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