

Consumer Experience Design in the Metaverse

Consumer Experience Design in the Metaverse:

A Brand Marketing Perspective

By

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CHAPTER 1

UNDERSTANDING THE METAVERSE IN A VIRTUAL MARKETING ENVIRONMENT

1.1. Defining the Metaverse Fundamentals

1.1.1. Historical Evolution of the Metaverse

The historical evolution of the Metaverse represents the integration of elements such as internet technology, imagination, and human interaction. Beginning as a speculative concept in the realms of science fiction, the notion of a virtual universe where individuals could interact, socialize, and engage with digital environments has gradually transformed into a reality.

Some sources state that the concept of the "Metaverse" first appeared in science fiction in the 1950s, with early works such as William Gibson's novel "Neuromancer" and the 1982 film Tron.

The inception of the term "Metaverse" can be traced back to the early 1990s when it was coined by the author Neal Stephenson in his novel "Snow Crash."

However, it was in the 21st century that the Metaverse truly began to take shape. Technological advancements, particularly in the fields of virtual reality (VR), augmented reality (AR), and artificial intelligence (AI), have paved the way for the Metaverse's growth. Virtual worlds (VW), online games, social media platforms, and immersive simulations have all contributed to the Metaverse's expansion, enabling consumers to transcend physical limitations and immerse themselves in digital realms. The historical evolution of the Metaverse is not just a story of technological progress but also a testament to the boundless human imagination and our innate desire for connection and exploration in an increasingly digital world. Currently we know such virtual worlds as Second Life, Fortnite, Roblox, VRChat, Decentraland and others.

As we continue to journey through the annals of the Metaverse's history, it is clear that its evolution is far from complete, promising further innovations, transformations, and possibilities that will reshape our understanding of virtual existence and human interaction.

Parallel to the speculative narratives in literature, the development of virtual reality technology laid the foundational stones for the Metaverse. The late 20th century witnessed significant advancements in computer graphics, simulation technologies, and consumer-interface designs, collectively enabling immersive virtual environments. These technological strides were complemented by the emergence of the Internet, a global network that facilitated unprecedented levels of connectivity, information exchange, and digital interaction.

The early iterations of virtual spaces, such as Multi-User Dungeon (MUDs) in the 1980s and later, and more visually sophisticated virtual worlds like Second Life in the early 2000s, exemplified the human desire for and feasibility of creating shared digital spaces. These platforms, although primitive by today's standards, offered a glimpse into the potential for virtual communities, economies, and forms of social interaction, laying the groundwork for more integrated and immersive virtual experiences.

As the internet evolved into a more graphically rich and interactive platform, so did the Metaverse concept. The proliferation of broadband connectivity, advancements in 3D graphics, and the democratization of virtual reality hardware have all played pivotal roles in bringing the Metaverse closer to reality. The introduction of more affordable VR headsets, sophisticated augmented reality applications, and blockchain technologies has enabled the creation of more immersive, persistent, and economically viable virtual spaces.

The contemporary understanding of the Metaverse has been influenced significantly by the integration of blockchain technology and the advent of digital assets, such as non-fungible tokens (NFTs). These technologies have introduced concepts of ownership, scarcity, and value exchange into virtual spaces, enabling the creation of complex economies and more tangible connections between the virtual and physical worlds.

The social and cultural shifts catalyzed by global events, such as the COVID-19 pandemic, have underscored the value of virtual spaces for remote work, education, socialization, and entertainment. This period of accelerated digital transformation has further propelled interest and investment in the development of the Metaverse, signaling its potential as a critical infrastructure for future digital interaction.

The historical evolution of the Metaverse is witness to the enduring human fascination with creating alternate realities and the relentless pursuit of technological innovation. From its literary inception to its current manifestation as an emerging digital frontier, the Metaverse represents advances in virtual reality, Internet technologies, and digital culture where

consumers interact. As we stand on the precipice of this new era of digital existence, the Metaverse beckons with promises of redefining the boundaries of reality, identity, and community in an increasingly connected world.

1.1.2. Key Terms in the Metaverse Discourse

The discourse surrounding the Metaverse, an increasingly prevalent concept at the intersection of digital technology and social interaction, is replete with specialized terminologies that encapsulate its multifaceted nature (Figure 1). This academic exploration seeks to delineate and elucidate the key terminologies integral to understanding the Metaverse, providing a foundational lexicon for scholarly examination and discussion. As an emergent digital frontier, the Metaverse represents a convergence of virtual reality, augmented reality, digital economies, and social platforms, creating a seamless blend of physical and digital experiences.

Virtual Reality (VR): VR refers to computer-generated environments that can simulate physical presence in real or imagined worlds, allowing consumers to interact within these spaces. It is distinguished by its immersive nature, facilitated through devices such as headsets and motion tracking sensors, which isolate the consumer from their physical surroundings to fully engage with the virtual environment.

Augmented Reality (AR): AR technology overlays digital information onto the real-world environment. Unlike VR, which creates an entirely virtual experience, AR enhances reality by superimposing digital images, text, or other data onto the consumer's view of the real world, often through smartphones, tablets, or specialized glasses.

Mixed reality (MR): is the integration of virtual and physical environments, combining elements of both. This technology is currently being advanced through the use of holographic and augmented reality innovations.

Extended Reality (XR) is an umbrella term that includes Virtual Reality (VR), which creates entirely digital environments; Augmented Reality (AR), which overlays digital content onto the real world; and Mixed Reality (MR), which integrates digital and physical elements in real-time, enabling interaction between them. XR represents a continuum of experiences that range from fully immersive to partially immersive, offering new ways to perceive and interact with digital information in various contexts, from entertainment and education to industrial applications. As a field, XR is characterized by its ability to enhance, alter, or create reality through advanced computing and sensory technologies, thereby expanding the possibilities for human experience and interaction with digital content.

Blockchain: Blockchain technology is fundamental to the operation and governance of the Metaverse, providing a decentralized and secure framework for transactions, identity verification, and digital asset management. It supports the creation of cryptocurrencies and non-fungible tokens (NFTs), which are pivotal for commerce and ownership within the Metaverse.

Cryptocurrency: Cryptocurrencies provide a digital currency solution for buying, selling, and trading virtual goods and services, facilitating a virtual economy that mirrors the complexity of real-world financial systems.

Artificial Intelligence (AI): AI plays a crucial role in the Metaverse, from creating responsive and adaptive environments to powering non-player characters (NPCs) that can interact with consumers in sophisticated ways. AI also supports natural language processing and machine learning algorithms that enhance consumer interactions and experiences.

3D Reconstruction and Graphics: Advanced 3D modeling and graphics are essential for building detailed environments and objects within the Metaverse. These technologies enable the creation of realistic and fantastical spaces that consumers can explore and interact with.

Internet of Things (IoT): IoT connects physical devices to the Metaverse, allowing for seamless integration of real-world and virtual experiences. This technology can enable real-time data collection and interaction, bridging the gap between the digital and physical worlds.

Networking and Connectivity: High-speed internet connections, cloud computing, and edge computing are fundamental to ensuring that the Metaverse operates smoothly and without latency. These technologies support the massive data transfer and real-time interactions required for a seamless virtual experience.

Interoperability and Standards: For the Metaverse to be a truly interconnected universe, different virtual environments and platforms need to be compatible with each other. This requires the development of common standards and protocols that ensure a seamless experience across various virtual spaces.

Digital Assets: Digital assets in the Metaverse context refer to items or resources that exist in a digital format and have value. This includes virtual land, avatars, in-game items, and NFTs. These assets are often traded, bought, and sold within the Metaverse, often utilizing blockchain technology to ensure secure and transparent transactions.

Non-Fungible Tokens (NFTs): NFTs are a class of digital assets that represent ownership or proof of authenticity of a unique item or piece of content on the blockchain. Unlike cryptocurrencies, which are fungible

and interchangeable, NFTs are distinct and cannot be exchanged on a one-to-one basis, making them ideal for representing unique digital items within the Metaverse.

Virtual Economy: The virtual economy encompasses the economic activities and transactions occurring within the Metaverse, facilitated by digital currencies and assets. It includes the buying, selling, and trading of digital goods and services, with unique economic systems emerging within different virtual spaces.

Interoperability: Interoperability refers to the ability of diverse virtual environments and platforms within the Metaverse to operate together seamlessly, allowing consumers and digital assets to move freely across different virtual spaces. This concept is essential for creating a unified and expansive Metaverse, where experiences and assets are not isolated within specific platforms.

Engagement in Metaverse: The concept of engagement in Metaverse can be defined as: a process (its psychological process from brand cognition, and interaction, to re-purchase in the virtual world; the process can start offline as well), behaviour (all the consumer's actions in the VR), state (psychological state which involves cognitive and emotional state when the interaction with a particular object is going in the virtual world).

Immersion: Is a psychological state in which a consumer experiences a strong sense of being present within a non-physical world – a digitally constructed environment, perceiving it as real or meaningful despite knowing it is artificial. Immersion in Metaverse involves sensory immersion, cognitive immersion, emotional immersion and behavioural immersion.

Avatar: An avatar is a consumer's representation within the Metaverse, typically a digital persona or character that can interact with the environment and other consumers. Avatars can be customized and are central to identity and social interaction within virtual spaces.

Summing up, the terminologies associated with the Metaverse discourse provide a framework for understanding the complex and rapidly evolving landscape of digital interaction and virtual spaces. These terms not only define the components and capabilities of the Metaverse but also reflect the broader societal, economic, and technological shifts accompanying the rise of this new digital epoch.

1.1.3. Technological Foundations of the Metaverse

The Metaverse stands as the next frontier in digital evolution, a concept that has sparked considerable interest and speculation within the technology and research communities (Table 1).

Table 1: Fundamental Technologies of the Metaverse

Grouping Element	Technology
For immersive experiences building	Virtual Reality, Augmented Reality, Mixed reality Extended reality
For security ensuring	Blockchain and advanced encryption, biometric authentication, decentralized identity, insurance technologies and etc.
For dynamic and intelligent interactions	Artificial Intelligence (AI), Learning management systems, simulation technology
For creating visualizations of virtual worlds	3D graphics software
For human-computer interactions	Internet of Things (IoT) with appropriate software: VR headsets with stereo sound, sensors like accelerometers and gyroscopes technologies and etc.

The definitions of these technologies are provided in section 1.1.3.

The integration of the technologies creates a complex but fascinating framework for the Metaverse, a digital space that promises to transform interaction, work, play, and socialization. As researchers, our role is to continue exploring these technologies, understanding their implications, and addressing the challenges they present to realize the full potential of the Metaverse. This endeavor not only involves technical innovation but also considerations of privacy, security, ethics, and governance to ensure that the Metaverse becomes a space that is accessible, inclusive, and beneficial for all.

1.1.4. Conceptualization and Typology of the Metaverse

The Metaverse is an immersive digital environment that has attracted significant attention due to its potential to transform various industries and its significant impact on society.

[30] identified, that from the 2000s to mid-2010s, researchers defined the concept Metaverse across "digital or virtual settings such as gamification and avatar-based learning platforms". After the mid-2010s, more attention was dedicated to such technologies as AR and VR, because they became more mature, the definitions of Metaverse did not vary a lot.

Later, the concept of the Metaverse was expanded adding the aspect of socialization.

The term "Metaverse", a three-dimensional virtual universe similar to the real realm [41].

The Metaverse is the product of the combination of various technologies in different scenes. It is a key component to promote the integration of the real world and the digital world and can provide more advanced technical support in the construction of the DC [27].

"The Metaverse can be defined as a collective, immersive virtual space that integrates various digital environments and platforms, allowing consumers to interact in real time through avatars and other digital representations" [13].

[10] defined Metaverse as technology, which combines "an immersive digital world that combines augmented reality (AR) and virtual reality (VR), offers unique opportunities for consumers to experience brands in a new and interactive way."

[36] emphasize such technologies as Web 3.0, Blockchain, NFT, and Cryptocurrencies.

According [38] the concept Metaverse consist of two parts: "meta" (meaning beyond) and "universe."

This emergent phenomenon, is characterized by its technological basement and the opportunities for consumers: consumers and businesses/brands and impact on sectors (including education, healthcare, retail, and tourism [35]).

After analysis, the previous studies its necessary to emphasize that it should be used consumer-centric approach conceptualizing Metaverse. Based on this approach we may state that Metaverse connects real and virtual environments (worlds) through smart technologies and provides immersive experiences for the consumer's interactions with each other and brands through

Avatars ensuring consumer's motivational factors satisfaction and leading consumers to smooth and secure purchasing process.

The Metaverse environment ensures that consumers have a fully immersive digital environment where consumers can interact, work, play, and socialize across a spectrum of virtual landscapes.

Typology. Despite the fact that there are various types of virtual worlds, virtual world [15], is typically linked to seven key characteristics, which can be grouped according to technological aspects, consumer presence and interaction, ensuring content creation (Table 2).

Table 2. Key Characteristics of Virtual Worlds

Grouping aspect	Explanation
Consumer presence and interaction	Can accommodate the sharing of space between numerous consumers; Has a graphical consumer interface that allows the consumer to move about the shared virtual environment; Possesses "immediacy" (i.e., the ability to enable concurrent consumer interaction, supported by digital avatars or human-like characters); The world facilitates the creation of VW social groups, teams, clubs, neighborhood friends, and one-on-one communication between consumers.
Technological aspect	VWs are persistent, indicating that activities within the virtual worlds continue even when consumers are not present; The environment is managed by virtual operating software that is maintained by virtual developers.
Content creation	Provides consumers with a multitude of tools to generate virtual objects and content.

[4] states that their presented Metaverse typology will serve for future theorization: (1) the unique characteristics of the Metaverse; (2) the explanation of the mechanisms and results of consumer interactions with the media features; and (3) the media affordances of advertising in the Metaverse as a consequence.

Main components of Metaverse are interaction, interface, environment, privacy and security [28].

First, Metaverse can be based on computer-generated environments (technologies), such as VR, augmented reality (AR), and extended reality (XR). Second, the Metaverse reflects social systems, for example, avatars (i.e., people), monetary systems (i.e., money), objects (similar to real

world), and history (the events which were in the real world). The author emphasizes social components of the Metaverse such as "immersion, interoperability, concurrence, continuity, seamlessness, and embodiment" [4].

The vision of the Metaverse is like another walkable version of Web3 [36]. Facebook announced in 2021 information their efforts in Metaverse and renamed their company to Meta. In April 2023, Meta significantly reduced its active promotion of the Metaverse to advertisers and redirected strategic focus toward AI and Reels. In December 2025, the company announced substantial planned reductions within its Metaverse division.

1.2. The Metaverse and Marketing Ecosystem

The Metaverse conceptualisation was provided in section 1.1.4. The section will justify the connections between Metaverse and the Marketing ecosystem.

1.2.1. Metaverse's Marketing Ecosystem

The Metaverse digital space goes beyond traditional virtual boundaries and impacts the marketing ecosystem transformation. This emergent phenomenon, characterized by its synthesis of virtual reality (VR), augmented reality (AR), blockchain technology, and social media, presents a novel and complex environment for marketers to navigate. The integration of these technologies within the Metaverse encouraged the creation of innovative marketing strategies.

The essence of the Metaverse's Marketing Ecosystem is its ability to offer immersive experiences that transcend the passive interactions typical of traditional digital marketing platforms. Through VR and AR, brands can create engaging and interactive environments that allow consumers to experience products and services in a fully immersive context. This heightened level of engagement not only enhances the consumer's connection to the brand but also fosters a deeper level of emotional investment in the brand's narrative. For instance, fashion brands have leveraged virtual reality to host digital fashion shows within the Metaverse, allowing consumers to experience the runway from the comfort of their homes, yet with a level of immersion that rivals physical attendance.

Metaverse provides opportunities to open new revenue streams involving blockchain technology in the marketing ecosystem through the use of digital assets and cryptocurrencies. Brands can create unique digital assets, such as non-fungible tokens (NFTs), that consumers can purchase,

trade, or collect. These digital assets offer a new form of value exchange between brands and consumers, enabling the latter to own a piece of the brand's virtual identity. This may help engage with consumers more effectively and meaningfully, fostering brand loyalty and community.

The concept of interoperability within the Metaverse further enriches the marketing ecosystem by allowing for seamless experiences across different virtual environments. Consumers capability to travel in various brand spaces without the friction typically associated with platform transitions, ensuring a cohesive and continuous brand experience. This interconnectedness facilitates greater collaboration between brands and creates opportunities for cross-promotional activities that can amplify brand visibility and engagement across the Metaverse.

Consumers' engagement in virtual brand communities in the Metaverse may satisfy their need for knowledge, socialization, and entertainment and ensure immersive experiences about a particular brand. The Metaverse offers a data-rich environment that can provide marketers with deep insights into consumer behaviour and preferences. The interactive nature of the Metaverse enables brands to collect data on consumer interactions, preferences, and movements within virtual spaces. This data can be leveraged to create highly personalized marketing strategies, tailor experiences to individual consumers, and optimize product offerings in real time, thereby enhancing the effectiveness of marketing efforts. However, navigating the marketing ecosystem within the Metaverse also presents challenges, including issues related to privacy, data security, and the digital divide. As brands collect and utilize consumer data to personalize experiences, ensuring the ethical use of this data and protecting consumer privacy becomes essential. The digital divide may limit access to the Metaverse for certain segments of the population, raising questions about inclusivity and equality in digital marketing practices.

The Metaverse creates a virtual marketing ecosystem, where appears more opportunities for brand engagement, community building, and value creation. The Metaverse will undoubtedly transform the future of marketing, challenging marketers to innovate and adapt to its dynamic landscape. At the same time, this new environment raises ethical marketing questions, and a willingness to explore the boundless possibilities of digital engagement.

1.2.2. Transformation of Consumer Role in Marketing Communication: Traditional, Social Media, and Metaverse

At first, social media made an impact on the role of the consumer in marketing communication. In traditional marketing, consumers have often been seen as passive recipients of marketing messages, shaped by carefully curated brand narratives and advertisements. However, the immersive and interactive nature of the Metaverse facilitates a consumer-centric approach that empowers individuals to move beyond passive acceptance, enabling active participation and co-creation in virtual environments (Figure 2).

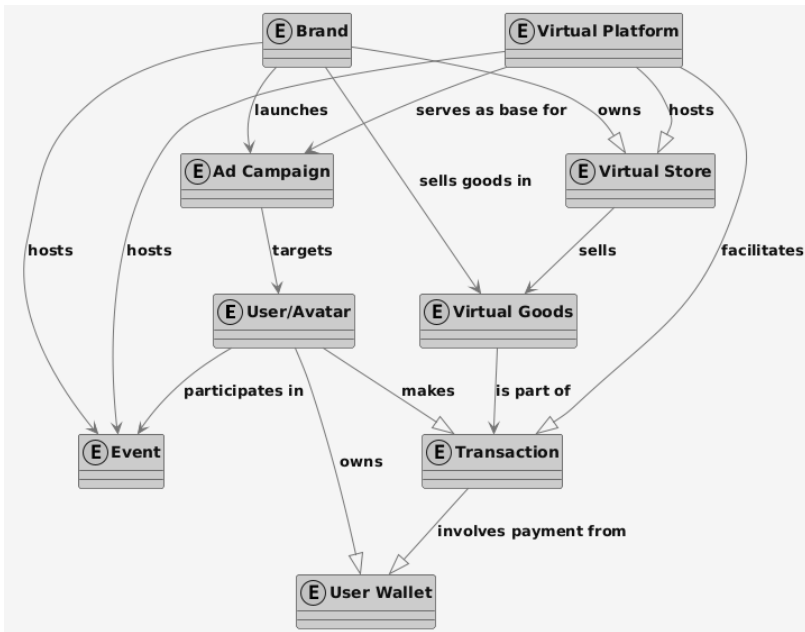


Figure 2. Metaverse's Marketing Ecosystem

In the Metaverse, consumers are not passive recipients of marketing messages, they are active participants in a dynamic ecosystem. This transformation is rooted in the interactive capabilities of the Metaverse, which allow consumers to engage with brands and products in real-time, influencing their experience and the experiences of others within the virtual space.

The analysis of scientific studies identifies key changes in marketing communication [39] that have led to the emergence of consumer-integrating marketing communication. These changes are linked to the following.

1. Models of Communication. Social media has created opportunities to move away from the traditional one-to-many model of marketing communication to one-to-one models, one-to-many, few-to-many, one-to-many, and many-to-many. Metaverse technologies ensure an active consumer role through Avatars and provide an opportunity to participate in applying the same communication models as in social media.

2. Directions of communication. Social media has enabled a shift from one-way communication through intermediaries to two-way communication; it has replaced monologue with dialogue between the company and stakeholders, and, through direct communication, has enabled long-term relationships between information senders and receivers. In the Metaverse the two-way communication directions remain but through Avatars.

3. Brand / Company role. The direction of corporate communication is also changed with social media and it passed to the Metaverse. The inside-out communication was transformed toward outside-in communication. The inside-out approach to communication is based on the assumption that the company first plans, establishes an organizational structure, provides staffing, and integrates internal communication to ensure effective external communication. The next step is the implementation and coordination of external marketing communication, making sure that the company's actions are clear, coherent, and understandable. The inside-out approach is referred to as pushing, as the company pushes its content to consumers as passive communicators, thus reinforcing the company's role as a content creator. For brands/companies, consumer behaviour online through Avatars provides a source of data from which companies/brands may learn more about consumers' needs and wants and to use this information to understand, plan, and implement an outside-in approach.

4. Position of the Consumer. Social media and Metaverse makes consumers key players in marketing communications. From the consumer's perspective, consumers are empowered to create content, and express their opinions, observations, or criticisms. The role of the consumer as an active communicator is defined in social media as a 'producer' or 'co-creator', prosumer, an advocate or evangelist, influencer, as a market mover, who

can determine consumer choice and influence opinion formation. In the Metaverse, the consumer can apply all the mentioned roles for his/her personal avatar.

5. Consumer and Company / Brand Interaction in the Social media and Metaverse is a cornerstone of this transformation. Unlike traditional media, where consumer engagement is limited to viewing or listening, the Metaverse offers immersive experiences where consumers can interact with digital content in a three-dimensional space. This interactivity allows consumers to explore virtual products, attend virtual events, and engage with brands in ways that are not possible in the physical world. The ability to interact with a brand in such an intangible way enhances consumer experiences through capability to personalize the content to the consumer. The challenge for businesses is to find active consumers who are willing to engage with and share their content on social media and are able to reach a large number of current and future consumers.

Consumer and company/brand interaction can lead to collaborators in the brand-building process. In the Metaverse it remains. The Metaverse provides tools and platforms that enable consumers to create and customize virtual goods, spaces, and experiences. This level of engagement fosters a deeper connection between the consumer and the brand, as consumers invest their time and creativity into shaping the virtual environment. Brands that embrace co-creation in the Metaverse can harness the collective creativity of their consumer base, leading to more authentic and resonant brand experiences.

The community role in social media and the Metaverse remains important. Building underscores the active role of consumers in the Metaverse. The Metaverse provides space where relationships between individuals, brands, and communities can be formed. Consumers can gather in virtual worlds to share experiences, collaborate on projects, or simply socialize, creating a sense of belonging and shared identity. This communal aspect of the Metaverse enhances the consumer's role from an isolated participant to a member of a larger, interconnected network. Brands that recognize and cultivate these communities can foster loyalty and advocacy, as consumers become not only participants but also promoters of the brand within their virtual communities.

6. Nature of communication. Mass communication is being replaced by personalized communication in social media and Metaverse, i.e., communication tailored to the needs of target groups.

7. The Emergence of New Channels. Traditional media channels (radio, TV, print) remain, but new opportunities in the virtual space are generating a lot of consumer interest. They are more in line with consumers' needs to communicate and exchange information, offer suggestions and advice to friends on social media and the Metaverse through mutual help and support, and receive help and support from other Internet consumers.

8. Channel Selections. In social media, consumers choose which channel, when and with whom they communicate. In the Metaverse it remains. In contrast, in traditional environments, companies choose which channels they will use to communicate their marketing message,

9. Use of Channels. In traditional settings, media channels are used to spread a message one-to-many, while social media provides an opportunity for consumers to choose the channels themselves. The Metaverse provides free will to consumers to use it if they have appropriate equipment.

10. Message Control. In the virtual space, companies have partially lost control over content and the ability to choose audiences, timing and frequency of message viewing. In the physical space, marketing content is protected by law - it cannot be copied or distributed without the company's permission. This protection also applies to content on company websites. In the traditional environment, companies or the agencies they represent are the creators and distributors of advertising content, communicating advertising messages to consumers through traditional media channels. In virtual environment brands should allow consumers to distribute, modify, change or adapt the content they create to the interests of the community. In social media and Metaverse, consumers gain the power to choose channels, time, topics and ignore boring content. For companies/brands it is quite difficult to control when, where and how consumers will interpret the brand content, or where and how they will share their own content or that which is company-generated.

11. Marketing Complex. The marketing complex model (4Ps (product, price, promotion, place), 7Ps (product, price, promotion, place, people, packaging, and process) remains important in the virtual space but does not pay enough attention to the relationship with consumers. In social media 4Ps and 7Ps models can be replaced by the models 4Cs (consumer, communication, costs, convenience) or 6Cs (company, content, control, community, consumer, conversations). By building marketing communication on these models, companies can develop better relationships with

consumer's. The 4Cs and 6Cs models emphasize consumer engagement in marketing communications, where companies encourage consumers to become spokespersons for products, to talk enthusiastically about these products, and to provide information to other consumers. In the Metaverse the 4Cs and 6Cs models remain important, with emphasis on a consumer-centric approach. Meanwhile, the 4E (education, esthetics, escapism, and entertainment) model emphasizes experiences.

12. Key Marketing Communication Concepts. When it comes to social media or Metaverse communication, the terms used to describe communication in traditional media persist: word-of-mouth, electronic word-of-mouth, and corporate communication. In social media, new terms are emerging: consumer-generated content and company-generated content; in Metaverse: Avatar-mediated communication.

Table 3 provides a summary of presented comparative analysis of traditional, social media and Metaverse marketing communication analysis.

The shift from a passive to an active consumer role in virtual environments can be understood through several key dimensions: active participation, interaction, co-creation, and community involvement.

Table 3: Comparative Analysis of Traditional, Social Media, and Metaverse Marketing Communication (based on [39])

Aspect	Marketing Communication Offline	Social Media Marketing Communication	Metaverse Marketing Communication
1. Models of Communication	One-to-many	One-to-one, one-to-many, few-to-many, many-to-many	One-to-one, one-to-many, few-to-many, many-to-many
2. Directions of Communication	One-way Communication insight-out communication	Two-way communication: balance among company insight-out and outside-in communication	Two-way communication: balance among companies' insight-out and outside-in communication
3. Brand/ Company Role	Protection of the Company	Building and maintaining relationships with consumers	Building and maintaining relationships with consumers