



VIRTUAL REALITY, METAVERSES AND IMMERSIVE ADVERTISING. TAXONOMY FOR TRANSMEDIA MUTUALISM

PABLO MARTÍN RAMALLAL

CENTRO UNIVERSITARIO SAN ISIDORO, ATTACHED TO THE PABLO DE OLAVIDE UNIVERSITY, SPAIN

KEYWORDS

Metaverse
Immersive Advertising
Virtual Reality
Immersive
Transmedia
Taxonomy
Engagement

ABSTRACT

The study examines the convergence of virtual reality (VR), metaverses and immersive advertising (IP), employing discourse analysis, case studies and a documentary review to generate a taxonomy. It elucidates the role of Information and Communication Technologies (ICTs) in advertising today, with a particular focus on metaverses. It also highlights how new generations are adopting immersive narratives and how transmedia advertising and advertainment are effective. It is proposed that IP can enhance transmedia strategies, with particular emphasis on the immersion afforded by VR, the sociability of metaverses, and the advantages of engagement and personalisation. However, technical obstacles such as ergonomics and market fragmentation are also identified.

Received: 13 / 05 / 2024

Accepted: 14 / 07 / 2024

1. Introduction

Information and communication technologies (ICTs), including extended realities, have become an integral part of modern society. Communication, a fluid and pervasive phenomenon (Bauman, 2015), is deeply influenced by this situation, with advertising being one of its most prominent manifestations and open to innovation. It seeks channels that can be personalised and reach targets, with metaverses recently gaining significant prominence (Sanz-Marcos and Micaletto-Belda, 2019). The issue becomes relevant among the new generations, whose grammars natively revolve around cyber-stories (Prensky, 2012; Beltrán-Flandoli and Micaletto-Belda, 2019). There is evidence that transmedia and advertainment actions achieve positive results (Granitz and Forman, 2015). The integration of emerging technologies, such as virtual reality (VR), into complex transmedia and crossmedia narratives represents an example of interdisciplinarity (Scolari & Establés, 2017). Studies have noted the symbiosis between journalism and immersion (Colussi & Reis, 2020; Sánchez-González and Benítez-Gutiérrez, 2021;). In contrast, in advertising there is an epistemological vacuum that drags along a discourse destined to hatch in society through the metaverse. Consequently, the study contrasts aspects pertaining to immersive advertising (IP) and the implications that these synthetic spaces will bring, which can become effective (Jayawardena et al., 2023).

1.1. Objectives

The primary objective is to analyse VR and the metaverse in advertising discourse from a multidisciplinary perspective, with a particular focus on the phenomenon of IP. IP is a digital narrative that is optimised in transmedia contexts, and this analysis will seek to identify its advantages and considerations. To achieve this, a taxonomy and a brief state of the art of IP will be proposed.

2. Methodology

The research begins with a deductive method, employing a holistic explanatory-descriptive vision, which culminates in an exploratory approach (Bernal-Torres, 2016). This is due to the emergence of these narratives. By integrating this approach, it establishes a solid framework for understanding both the theoretical and practical aspects of this emerging phenomenon. The perspective is relevant to the study of social objects (Muñoz-Rocha, 2016), and because IP has a promising character. Theoretical frameworks are constructed from a multitude of fields of study, forming a complex and multifaceted theoretical apparatus. This apparatus serves as a research tool, providing a comprehensive overview of the current state of the art of VR-based advertising. Our methodology employs multi-focal qualitative techniques, enabling us to observe the phenomenon holistically. A review of existing literature is conducted to construct a supporting corpus (Hernández-Sampieri, 2018). The triangulation method (Stake, 2020) allows for the acquisition of a rigorous view of the content. A multiple case study and discourse analysis are implemented (Yin, 2017). The responses shown in the form of a taxonomy emerge from this work, which is structured according to cases, level of interaction and complexity. The classification is justified given the incipient nature of IP, which is why the area lacks texts of this nature. The research device employs a visual and interactive discourse analysis, in addition to a documentary review with a hermeneutic approach. This approach allows for flexibility and supports the interpretation of the authors (Bernal-Torres, 2016). The process facilitates discussion of the advantages and considerations of IP as a persuasive narrative, with particular effectiveness in transmedia contexts. The final frontier is the metaverse.

3. Materials

3.1. From Liquid to Immersive Advertising: The Arrival of the Metaverse

Given the Darwinian nature of advertising, it seeks innovative ways to reach audiences, and ICT offers unexpected ways to interact. Marketing is subordinated to a relentless pursuit of effectiveness and efficiency. Whether through an exponentially growing social network or a killer app, i.e. a WhatsApp-style application, advertising is encountering unprecedented forms of persuasion. An ecosystem of avant-garde narratives is emerging, in which new formats are germinating. Despite the rise of artificial intelligence (Polo-Serrano and Martín-Herrera, 2023), augmented realities are adding to the complex

communication framework (Martín-Ramallal and Micaletto-Belda, 2021). Tastes and consumption habits are more limited than ever when planning campaigns, including transmedia campaigns, as in the case of journalism (Mauricio-Calvo and Serrano-Tellería, 2021). In Modernity 2.0, the target audience is an active and indispensable part of the advertising process. For Sidorenko-Bautista et al. (2018), "the one-to-many communication characteristic of the 20th century has given way to the many-to-many model, in which the passive receiver also becomes a transmitter and acquires the full capacity to develop his creativity" (p. 21), a determining factor of transmediality (Arrojo, 2014). The audience participates in four ways: by generating content, redistributing it, commenting on it or remixing it (Jenkins et al., p. 26). In a saturated context, it is necessary to reach out and make an impact. In the face of advertising intoxication, transmedia emerges, multidiscursive rhetorical techniques applied to cybersociety to make an impact (Alberich-Pascual & Gómez-Pérez, 2017; Granitz & Forman, 2015). Thus, we understand advertising as follows:

The placement of advertisements and persuasive messages, in time or space, purchased in any media by for-profit companies, non-profit organisations, government agencies and individuals to inform and/or persuade members of a particular target market or audience about their products, services, organisations or ideas (AMA, 2022).

In turn, the term transmedia was coined by Kinder (1991) and developed and popularised by Jenkins (2003) as "the process by which the integral elements of a fiction are systematically distributed across multiple distribution channels in order to create a unified and coordinated entertainment experience" as quoted in Alberich-Pascual & Gómez-Pérez (2017, p. 10). The evolution of advertising involves the construction of complex and fragmented narratives, with the recipient as the undisputed protagonist.

In a context characterised by endless windows of information, VR opens up a new modality of persuasion (Martín-Ramallal and Bertola-Garbellini, 2021). For Sherman and Craig (2018), it is a "medium composed of interactive computer simulations that record the positions and actions of participants and replace or augment feedback to one or more senses, giving the sensation of being mentally immersed or present in the simulation (virtual world)" (p. 13). In this sense, IP uses VR in its various encoding-decoding manifestations to persuade the audience. The narrative of being complete offers interactivity, immersion, retro-sensitivity and more or less developed virtual worlds (Sherman and Craig, 2018), the last link being the metaverse. Immersion can be defined as "the sensation of being completely surrounded by another reality (...) that requires our full attention, our entire perceptual apparatus" (Martí-Parreño, 2010, p. 27). Therefore, VR is the extended reality where an almost complete isolation from the environment is achieved, transferring the target into a three-dimensional digital environment with different levels of interaction.

3.2. Defining the Metaverse

In the context of immersive advertising, it is important to understand the potential of metaverses and augmented realities. As these concepts evolve, advertising is changing the way it communicates with audiences in these virtual spaces. Three elements are essential: VR interactivity, embodiment avatar and persistence (Figure 1).

Figure 1. The basic building blocks of virtual worlds



Source: Own elaboration (2024).

To clarify concepts, we accept metaverses (Stephenson, 1992) as VR environments where thousands of individuals interact telepresentially through avatars, creating a sense of embodiment. immersive

advertising in metaverses and augmented realities offers a new paradigm for brands and advertisers. VR, avatars, interactivity, persistence, interoperability, digital identity, cryptoeconomics and community are key elements to consider when creating effective advertising strategies in these evolving environments (Martín-Ramallal et al., 2023).

VR is at the heart of this transformation, allowing brands and advertisers to engage consumers in immersive experiences that go beyond traditional media. Rather than simply viewing advertisements, users can interact virtually with products and services, creating a deeper and more memorable connection. Avatars play a key role in this interaction by representing users in these digital environments. These avatars can be an extension of a person's digital identity and provide an additional level of personalisation in immersive advertising. In addition, the creation and personalisation of avatars can become an integral part of advertising strategies. Interactivity is another essential aspect of immersive advertising in metaverses. Not only can users explore these virtual worlds, but they can also interact with other users and with advertising elements in a way that is not possible in traditional media. This creates opportunities for more engaging and effective advertising campaigns. Persistence in metaverses means that virtual experiences and relationships can continue over time, even when users are offline. This means that brands can maintain a continuous presence in these environments, further increasing their impact on audiences. It is essential that there is persistence, that is, that these spaces have their own temporal rules (Girvan, 2018) and persist beyond whether the subject participates in the interaction or not. So far, they coincide with the concept of virtual world, but we understand by semantic deviation that it is in VR immersion where they differ. They should not be confused with video games, although the boundaries could be blurred. Note that one of the launch strategies of Horizon Worlds, Meta's VR network, is microgames. Interoperability between different metaverses and platforms is essential to ensure that advertising strategies are effective in all virtual environments. Brands need to be able to carry their messages across multiple metaverses and maintain a consistent identity across them.

Digital identity and online safety are key concerns in the metaverse. Brands need to ensure that users feel safe interacting with their ads and that their digital identities are protected. Cryptoeconomics also plays an important role in immersive advertising, enabling secure and seamless transactions in these virtual environments. Brands can use cryptocurrencies and non-fungible tokens (NFTs) to offer exclusive products and rewards to their customers in metaverses. Finally, coexistence and community in metaverses are critical. Brands need to encourage collaboration and community engagement in their advertising strategies to build strong and authentic relationships with their audiences in these virtual spaces.

4. Results

4.1. Immersive Advertising, Metaverse and Meta-Advertising

On 28 October 2021, Mark Zuckerberg announces his intention to develop a complex metaverse under the auspices of the conglomerate's new parent brand, Meta. A race between giants for the top positions in VR explicitly begins. Most of the former Facebook's revenue comes from advertising and data management, a model that is likely to continue in its immersive social network, currently known as Horizon Worlds. According to VR Marketing (Stuart, 2018), the narrative possibilities implied by the metaverse will grow exponentially. Transmedia for metaverses must take into account the information to be conveyed, the context of the experience, the actions that can be taken, and the profile of the user manifested in their avatar. Each target will have a unique and unrepeatable advertising experience, as there will always be changes due to persistence. They will also occur within the subject themselves, such as the improvement of their skills in the metaverse or the persistent acquisition of NFT objects. We have conditionings and expectations that are modified by the metaverse, and the IP needs to avoid potential frustrations.

Figure 2. User experience according to level of expectation in the metaverse



Source: Own elaboration (2024).

Creatives need to think about prior sensations towards VR, the emotion of being in the metaverse, and subsequent impressions. We consider three factors that influence this behaviour: emotional evocation, mood and prior emotional perception of the synthetic space. Advertising will use this approach to communicate transmedia campaigns. Advertisers will need to pay attention to the metaverse as it will be an opportunity to promote and sell their products by deriving positive value from this fictionality. Within advertainment, the third type identified by Ramos-Serrano (as it is quoted in Martín-Ramallal & Bertola-Garbellini, 2021, p. 2661) is advertising virtual worlds, something in line with metaverse and transmedia.

The values that VR and the metaverse offer to transmedia make an unprecedented range possible. It should be noted that there is a bubble in the metaverse ideology, with the vast majority being mere three-dimensional non-VR spaces that seek speculation through NFT (non-fungible token) technologies, the blockchain (Díaz, 2022) or cryptocurrencies. As occurred during the dot-com bubble, advanced metaverses will persist and compete with one another as networks do today. Metaverses, akin to iOS or Android, will require external developers to flourish and succeed. This underscores the significance of intellectual property (IP). Compensation and benefits for developers' efforts will be crucial. In this regard, freemium and free-to-play models become pertinent.

The metaverse, as its own etymology implies, will seek to emulate all the capabilities of the real world, except those of physiology, such as food. Consequently, meta-advertising will emerge, where IP itself will be part of this simulation. This will result in the advertising formats presented here fitting into this digital analogy of our immediate cosmos.

4.2. *Virtual Assistants Reincarnated as Three-Dimensional Entities*

It is paradoxical that the VR revolution will bring back long-established techniques such as relationship marketing. The metaverse, as with video games, will be populated by 3D virtual assistants to guide users and provide entertainment. It is logical to think that, if one of the main sources of monetisation will be advertising, entities of this nature will emerge. Voice will be a key factor in VR marketing (Morotti, 2020), but dealing with VR reincarnations with commercial functions may become a disruptive promotional factor. While the concept may be reminiscent of science fiction, there are precedents that until recently were unheard of, such as virtual influencers who have achieved the status of influencers and could easily make the leap into the metaverse.

4.3. *Immersive Advertising with Spherical Videos*

In an era where the concept of the homo videns has become firmly established (Sartori, 2012), spherical video offers insights into the ways in which audiovisual consumption is understood. It is a field that is currently experiencing significant growth and is home to a vast amount of content (Ericsson Consumer Lab, 2017). It is evident that this interest in audiovisuals will be transferred to metaverses, both in their conventional format and in their spherical aspect, thus reiterating the meta-advertising concept. Currently, its transmedia use is common in areas such as tourism (Gobbi, 2019). For its production, there are guides such as YouTube 360, which is the referential platform. Facebook is also compatible. When VR is based on images extracted from the real world, Sidorenko-Bautista et al. (2018) refer to it as real virtual reality (VRR). When it is generated by CGI, it is virtual virtual reality (VR2). At the same

time, mobile video is an advertising discourse that is constantly trending upwards (IAB, 2022). Virtual reality (VR) has its own typology, comprising video for smartphones or dedicated headsets. This could represent an opportunity for advertising, as evidenced by De Mooij (2018). However, it is evident that advertisers are not yet adopting hyperdiegetic stories, as they require effort from the receiver and advanced equipment.

It is evident that numerous advertisers are utilising 360-degree videos as a transmedia resource. Red Bull's omnichannel initiatives are particularly noteworthy. The brand has a multitude of actions that employ these as a campaign tool. Given its positioning, which is characterised by intrepid actions, risky sports and techno music, 360-degree audiovisuals are an optimal channel to enhance the spectacular nature of what is presented and for their empathetic qualities. A clear example of this is the VR fashion film (Martín-Ramallal, Ruiz-Mondaza, 2024). The subjective vision and surround sound enhance the bonds with the target audience, leading to greater engagement. It should be noted that it is not necessary to use a viewer, even if it is low-cost. Furthermore, Hayeon et al. (2021) contend that there is "no significant difference in virtual reality advertising experiences across all media devices" (p. 1096). Platforms such as YouTube permit consumption on any device, whether utilising a mouse, a mobile phone or a head-mounted display (HMD) headset. It is not uncommon to encounter VR2 content for children, such as Visit Barbie's Mega Dream House (2021). The level of impact is high, creating bonds with the characters. However, it is important to note that these contents must be supervised (Selva-Ruiz and Martín-Ramallal, 2019).

4.4. Immersive In-Game Advertising and Product Placement

IP narratives have a multitude of promotional formats, including 360 videos (Sidorenko-Bautista et al., 2018) and advertising games. What is common to all of these formats is that they are part of a transmedia action. Oculus, the prelude to Meta's metaverse, together with Horizon, aims to be an ecosystem where one of its revenue streams is supported by advertising and the NFT economy. Facebook Reality Labs tested in-game insertions in the VR video game Blaston (Figure 3.1) (Méndiz-Noguero, 2012, p. 43), which were designed to adjust to the user's tastes in a non-intrusive manner (Oculus, 2021). However, the criticisms that were voiced prompted a reconsideration of the position. It was considered inappropriate to advertise products in a video game that had been paid for. Another issue is that the advertisements disrupt the narrative by being decontextualised and their overlapping is unnatural. The model requires further development and is difficult to integrate with transmedia. This is not the case for free-to-play titles, as it is understood that to enjoy them there must be consideration. PlayStation VR is also considering integrating in-game advertising and promotional content. Nakata, Okumura and Mulase's patent (2021) indicates a potential direction in this regard. There are a number of additional possibilities. Such advertising is effective, particularly among young people (Alabau-Tejada, 2021). At the opposite end of the spectrum, we find Unity's virtual rooms, which are essentially in-game pocket universes where a promotional room is inserted into a VR space. These virtual rooms are designed for use in video games, where users will encounter them and experience a brief advertising narrative. Unity (2022) posits that "the first ads in a new medium always draw upon practices from previous ads, and eventually evolve into something unique".

In the metaverse, product placement, in its various forms, is a more effective form of meta-advertising than ever before. If its objective is to simulate reality, outdoor advertising represents the urban footprint of the capitalist system, an omnipresent element. Companies such as Admixplay.com are beginning to position themselves by offering these formats for virtual spaces. From a transmedia perspective, they do not offer much, but they deserve a mention to complete this state-of-the-art.

Figure 3. 1) Blaston 2) Doritos VR Battle 3) WOW VR Titles



Source: 1) Oculus, (2023) 2) Doritos Holanda (2016) 3) WOW Emotion (2023).

4.5. Advergimes-RV

In its transition from modernity to “supermodernity” (Manovich, 2006), advertising experiments with technologies, media and communication strategies, from advergimes, through networks, to the incipient metaverses. Its objective is to attract the target's attention and increase their involvement and interaction (Martí-Parreño, 2010). Immersive advergimes represent an incipient discourse that will gradually take its place. These types of advertisements exist for specific virtual reality equipment and for smartphones, although they differ from each other given the capabilities of each hardware system. Well-known brands such as Coca-Cola are beginning to make inroads into related fields such as virtual worlds. The soft drink company is launching Coca-Cola Byte in 2022 and is promoting it in a virtual space within the video game Fortnite (Epic Games), on the Pixel Point Island. The cans serve as an exemplar of immersive packaging, as they host an immersive advertising campaign based on augmented reality.

A growing body of evidence suggests that VR advergimes are an effective form of media, particularly among young people, who are increasingly susceptible to advertising (De Jans et al., 2018). Neuromarketing techniques have been employed to investigate this phenomenon (Borawska et al., 2020). Advergimes have been found to be particularly effective among younger consumers. According to Van-Berlo et al., (2021): “Younger consumers appear more susceptible to the persuasive effect of advergimes than older consumers”. (p. 179)”. There is a strong association between young people and gaming. These factors were taken into account when developing the Doritos VR Battle advergime, which achieved a higher average play experience than other advertising games. The company assumed an evangelistic role, with the aim of making teenagers aware of the immersive possibilities. The #PlayBold strategy included several transmedia campaigns. An influencer experience was launched in conjunction with the launch of a cross-platform VR game compatible with smartphones and advanced devices (Figure 3.2). The mechanics of the game are simple: players must collect as many Doritos as possible. The campaign was awarded the Golden Effie Award and achieved high image and sales returns. The impact of the campaign was undeniable. The case of Doritos VR Battle represents a paradigmatic example of demonstrative advergaming VR. As Méndiz-Noguero (2010, p. 43) explains, the game exploits the full interactive potential of the video game, allowing consumers to experience the product within the context of a game created specifically for the brand. However, the advanced version of the game was made available for a fee, which resulted in a significant backlash on online platforms. The general public is unaware that advergimes require payment. The decline in the popularity of VR advergimes for smartphones is indicative of a shift in the direction of intellectual property.

4.6. Immersive Advertising with Generic Advergimes

An alternative advertising strategy would be to engage the services of generic VR advergimes from companies such as WOW Emotions (2022). These are customisable titles with corporate elements and other options to differentiate from the competition. As it is an exotic ICT story, the target audience will still appreciate it as original and innovative, and this idea will be embedded in the concept of the issuer. These games are simple and have the capacity to fit in low-cost transmedia actions with a playful aspect.

4.7. Immersive Advertising with Generic Advergimes

The smartphone represents the primary gateway to digital cultural content. The advent of the Android and iOS operating systems has established apps as the dominant mode of interaction and dissemination. Consequently, the generation of targeted content can be advantageous to advertisers. While there has been a decline in the popularity of VR for smartphones, there are still a number of highly active apps. Platforms such as Oculus, SteamVR, and Playstation VR are gaining consumer interest and offer complex advertising experiences.

Stranger Things: The VR Experience (2017) is a Netflix promotion, an iconic transmedia platform (Guarinos & Cobo-Durán, 2020). Its habitat includes video games and comics. In this case, an experience was designed for HTC Vive and PlayStation VR, with six degrees of freedom. The user is transported to the iconic Byers house (Figure 3.2). The VR controller serves to illuminate the instance as a torch, creating an eerie effect that is topped off with a final scare, in keeping with the series. The narrative is tight and effective, which translates into successful propagability.

Figure 4. 1) 2) Stranger Things: VR 2)3) Audi Room: The Future Paradox



Source: 1) Netflix (2017) 3) Audi (2021).

4.8. Immersive Advertising Dramatized and Monitored at Physical Events

Virtual reality (VR) and its associated technology, the Internet of Things (IP), can manifest in numerous forms. One such manifestation is the integration of VR into promotional events. A case in point is the *Audi e-tron Room: The Future Paradox* (2020) initiative, which was developed by the advertising agency DDB and the production company Glassworks. This transmedia action was part of the launch of the Audi e-tron electric car. The escape room, which combined reality and VR, invited participants to embark on a space-time journey through Stonehenge or the Brooklyn Bridge during its construction. The game lasted 45 minutes and the promotion was itinerant, although it was interrupted by COVID-19. The avatars, dressed in futuristic branded uniforms, matched the players' physiognomy thanks to an algorithm, increasing identification and corporeality. The autonomous high-performance equipment allows the user to be free of cables, although it does not enable absolute positioning, i.e. "moving freely within a virtual space" (ESIC, 2018). The event mixes physical and virtual objects, with human monitors merging VR and wearables, and the overall experience was perceived as positive.

These IP manifestations could facilitate the formation of links between the metaverse and the real world. This would occur when some participants are placed in locations specifically designed for the action, with the scene then observed or participated in by "VR citizens". As can be sensed, the possibilities for VR marketing in metaverses are considerable (Stuart, 2018).

5. Discussion and Conclusions

The study employs a hermeneutic approach, derived from the analytical phase, observation of cases, and documentary review. This approach allows for greater flexibility and freedom in the discussion (Bernal-Torres, 2016). It should be noted that IP is also a rhetorical ICT narrative that carries some controversy. For instance, the effectiveness studies conducted by Leung et al. (2020) on VR as a narrative for tourism promotion indicate that they are less effective than conventional advertising spots. One potential explanation for this discrepancy could be the sense of presence itself, which may detract from the interest of the hypothetical trip. Another issue that requires further discussion is the contribution of Lo and Cheng (2020), who argue that low-cost Google Cardboard-style devices, which are based on smartphones, do not create a strong sense of presence. Assuming that different perspectives exist on the OP, the article presents the advantages and considerations of using VR as a transmedia advertising tool (Table 1).

Table 1. IP advantages and considerations

Advantages	Considerations
Transmediality	Screen door
Viable	Motion sickness
Immersion	Emerging (contents, cost...)
Multisensoriality - Multimodality	Segmentation
Sociability 2.0 guaranteed	Ergonomics could be improved
Increased sensations	Limited movement
Simulation	Lack
Interactive models to be discovered	Time of use limited (+- 10')
Advertising metaverses	Lack of interactive standards

Advantages	Considerations
Perception of detail	Limited target audience
Innovation	Physical integrity of use
Own story	
Telepresence	
Data capture	
Face-to-face relationship	
Ludification - Gamification	

Source: Own elaboration (2024).

Virtual reality (VR) has been the subject of considerable interest for some time, but Meta's announcement of its metaverse in 2021 has generated a great deal of interest. However, it was already an established discourse in everyday areas such as video games and advertising. Its virtues and improvements permeate other spaces, which translates into favourable advantages for the field of transmedia marketing. Firstly, immersion delivers on its promise (Gartner, 2019). Virtual reality (VR) is capable of deceiving the user, as it is able to create the sensation of being in another space-time. Despite years of unfulfilled promises (Sánchez-Mesa, 2019), the content is now up to the task and will continue to improve as interest in the metaverse grows. Platforms such as PlaystationVR, Oculus-Meta or SteamVR offer high-quality content that creates a sense of dislocation. This is particularly evident in advertainment and transmedia content on these platforms. At the online level, panels are emerging where immersive material can be tested, with the progressive integration of this content into ubiquitous devices such as smartphones. Advertising has the hardware, software and professional resources to produce innovative and high-quality pieces. Greater immersion has been achieved. Although virtual reality can be seamlessly integrated into smartphones, it seems that the specific equipment will ultimately determine the metaverse and, by extension, advertising. The ability to target the mobile and have transmedia pieces adapt in an omnipresent artefact is undoubtedly advantageous. The question of interest lies at the level of immersion, where creators must direct their attention. We are currently facing a radically different way of communicating. When the target is wearing the HMD, they become a captive subject of the experience, more so than in any other advertising format. It offers forms of expression, narration and fictionality with a profound impact through sensory amplification. The target enters into communion with their surroundings. The use of immersive graphics and sounds is employed to psychologically transport the target audience into the virtual world, where believable atmospheres are created through the use of ICT rhetorical devices, resulting in greater psychological intensity. IP delivers stories with an unprecedented level of engagement and memorability. As a result, transmedia advertising can create campaigns with an unparalleled resonance. This strength is amplified by multimodality, intensifying recall (Gutierrez and Tyner, 2012). VR advertising offers a multitude of sensory channels for creative pieces, including image, audio, touch, and even smell. This disruptive approach to transmedia construction positions it as a sensory marketing system of the first order (Jiménez-Marín, Bellido-Pérez and Cortés, 2019). Its expansion will create professionals who are adept at navigating the complexities of multisensoriality.

One issue that Facebook-Meta has definitively settled is the concept of sociability 2.0. There is growing evidence that VR is beginning to acquire qualities of social exchange (Barnes, 2016). Similarly, advertising 2.0 (Durán-Medina, 2014) and consequently transmedia, cannot be understood without digital interpersonality. For an action to be successful, this aspect must be sought out. VR integrates it, as shown by the Facebook Horizon or VRChat metaverses. As metaverses represent an evolution of social networks, the potential for transmedia 2.0 broadcasting is considerable. New social broadcasting systems such as Twitch will likely favour similar methods of advertising through VR (Recktenwald, 2017). Consequently, it can be employed as a resource for advertising events, including mass events. Given the telepresence capabilities of IP, it is possible to invite as many users as necessary to a branded event virtually. As with streaming platforms such as Twitch (Hilvert-Bruce et al., 2018), VR allows transmedia events to be broadcast, which can be leveraged by advertising to create interesting actions for the customer. The event does not have to be massive either. The VR user could visit our spaces with connected leisure models, which represent a powerful transmedia resource (Viñals-Blanco, 2016). In

consequence, unprecedented interactive models emerge. The implementation of advergames, advertising applications, forms of interaction and unexpected ways of consuming is made possible by VR. One example of this is the perception of detail. VR elements, already in high resolution, allow for a detailed appreciation of the elements in virtual environments. Materials, colours, textures and so on are assimilated more and better. This is also due to the feeling of occupying a subjective place in the environment, generating the idea of corporeality. The immediate and accurate perception of scales facilitates the assimilation of information. It enables the observation of locations and the testing of products in a realistic manner without the necessity of visiting a sales point. The absence of external noise ensures that the message is not distorted. Virtual reality (VR) offers the additional benefit of allowing the user to test the operation of a physical object in a complex manner. This is exemplified by the widespread acceptance of VR in the automotive industry (Barnes, 2016). Complex devices can be tested through the use of simulation procedures, which have previously been employed in other fields. Furthermore, the technology sector is seeking original interactions and narratives.

Originally an early adopter phenomenon, immersion has now become a mainstream trend. While the equipment and controls may appear sophisticated, the novelty of VR is often perceived as a positive attribute, which is why advertisers are keen to embrace it. With the development of specific interaction and discourse, new forms of manipulation emerge alongside the advent of immersive content. As interfaces are designed for transmedia campaigns, experiences can be used to indicate quality. If the initiative is integrated with storytelling in an appropriate manner, even if the experience is relatively brief, – a potential disadvantage – it will have conceptual depth and a structured development that will translate into engagement. Therefore, an interactivity can be adopted by a product or advertiser as its own, becoming a discourse within its identity repertoire. Another factor to consider is that VR makes it possible to collect information on more levels than other discourses such as the web can generate today. The latest generation of HMDs will enable the parameterisation of kinesics, proxemics, gestures, facial features and other factors, facilitating the development of more personalised products and services. The potential for IP on demand, especially in the metaverse, will be realised as the concept of invasion of privacy recedes. Digital VR environments will provide experiences tailored to the tastes of the target audience, with the ability to offer a summer environment in a marketplace to those who prefer it.

The combination of video games, marketing and VR can yield positive results (ESIC, 2018). VR in itself has a playful component, which is further enhanced by the interaction. As has been proven, gamification seems to work and will be a lure to these spaces, being more noticeable among young people (Alabeau-Tejada, 2021). Currently, VR is experiencing its most significant growth in the video game sector. However, the metaverse is poised to become a significant player in this space, with microgames and other forms of digital entertainment set to play a pivotal role in its implementation (Meta-Quest, 2022). The creation of narratives based on VR games or advergames represents a compelling lure for audiences who derive enjoyment from narratives that align with their advertainment preferences. These narratives can serve as an effective complement to promotional events. Additionally, VR is empathetic. According to RAE (2022), it is "identification with something or someone, the ability to identify with someone and share their feelings". Intrinsically mediated by immersion, VR involves a reconstruction of the subject's immediate worldview. Spatial-temporal barriers are rewritten and the digital becomes truthful. Isolation, subjective vision and the set of immersive techniques entail that the user puts himself in the place of other entities, whether real or virtual. VR activates mirror neurons, which are related to empathy. Lacoboni (2009), an expert in neuroscience and extended realities, maintains that:

they allow us to understand others, something very subtle. These cells are tiny miracles thanks to which we get through the day. They are at the core of the way we live our lives. They link us to each other, mentally and emotionally. (Lacoboni (2009, p. 14)

Consequently, transmedia advertising, in particular that of a social nature, represents a highly effective instrument for the promotion of awareness and activism. It is evident that the future imposition of IP will undoubtedly present a number of challenges. These include obstacles such as the perception of the dots on the screen, possible dizziness (VIU, 2016), the short duration of the experiences, the anti-ergonomic nature of the equipment, the safety of its use, the fragmentation of the market and metaverses, the lack of interactive standards and the limited size of the target audience. These are numerous challenges that Zuckerberg himself acknowledged at Connect-2021. There are numerous countervailing factors that IP will have to address until the metaverse reaches maturity. However, the

majority of these challenges are of a technical nature. As has been demonstrated, there are examples of successful VR marketing campaigns in an adaptive digital society. The text presents promising avenues for future research, including the implementation of real-time translation between avatars or advertising at the virtual point of sale. These issues will undoubtedly affect the emerging IP.

In conclusion, the hypothesis that the transmedia-RV advertising binomial has the capacity to construct avant-garde and effective narratives, including those that will emerge from and through the metaverse, is validated. While there are technical limitations that currently prevent its widespread integration as a mass discourse, these are largely conceptual rather than practical. According to the taxonomy, IP is well-suited to promotion within campaigns employing transmedia and/or advertainment strategies, including those incorporating advergames. It is noteworthy that in-game actions in paid titles are not currently occurring. The potential of IP and promotions in metaverses remains an area of interest. However, it is important to recognise that VR is still in its infancy and continues to evolve. This is evidenced by the commitment of major technology companies to the metaverse.

5. Acknowledgements

This study was conducted within the framework of the Digital Society and Creativity Research Group of the Centro Universitario San Isidoro, an institution affiliated with the University Pablo de Olavide.

References

- Alabau-Tejada, N.A. (2021). Realidad Virtual, videojuegos y publicidad in-game. *Prisma Social*, 34, 106-123. <https://revistaprismasocial.es/article/view/4359>
- Alberich-Pascual, J. & Gómez-Pérez, F. J. (2017). Tiento para una Estética transmedia. *Tropelías*, 28, 9-20. https://doi.org/10.26754/ojs_tropelias/tropelias.2017282044
- AMA (2022). *Advertising*. <https://www.ama.org/topics/advertising/>
- Arrojo, M. J. (2014). Los contenidos transmedia y la renovación de formatos periodísticos: la creatividad en el diseño de nuevas propuestas informativas. *Palabra Clave*, 18(3), 746-787. <https://doi.org/10.5294/pacla.2015.18.3.6>
- Barnes, S.J. (2016). Understanding Virtual Reality in Marketing: Nature, Implications and Potential. *SSRN*, 1-50. <https://doi.org/10.2139/ssrn.2909100>
- Bauman, Z. (2015). *Modernidad líquida*. Fondo de Cultura Económica.
- Beltrán-Flandoli, A. M. B., & Micaletto-Belda, J. P. (2019). La llegada de un nuevo escenario y el nacimiento de un paradigma comunicativo. In Luis Miguel Romero Rodríguez & Diana Elizabeth Rivera Rogel (Coords.), *La comunicación en el escenario digital: actualidad, retos y perspectivas* (pp. 65-90). Pearson Educación de Perú.
- Bernal-Torres, C. (2016). *Metodología de la Investigación*. Pearson
- Borawska, A., Borawski, M., Biercewicz, K., Łatuszyńska, M., & Duda, J. (2020). On the effectiveness of using virtual reality games in social marketing. *Procedia Computer Science*, 176, 3047-3056. <https://doi.org/10.1016/j.procs.2020.09.199>
- Colussi, J., & Reis, T. A. (2020). Periodismo inmersivo. Análisis de la narrativa en aplicaciones de RV. *Latina*, 77, 19-32. <https://doi.org/10.4185/RLCS-2020-1447>
- De Jans, S., Hudders, L., & Cauberghe, V. (2018). Adolescents' self-reported level of dispositional advertising literacy. *Young Consumers*, 19(4), 402-420. <https://doi.org/10.1108/yc-02-2018-00782>
- De Mooij, M. (2018). *Global marketing and advertising*. SAGE.
- Díaz, J. (2nd February 2022). 500 millones de dólares de terrenos virtuales vendidos en un año. El Confidencial. <https://bit.ly/3gJkf2Y>
- Durán-Medina, J. F. (2014). *Comunicación 2.0 y 3.0*. ACCI.
- Ericsson Consumer Lab (2017). *Merged reality. Understanding how virtual and augmented realities could*. Ericsson Consumer Lab. <https://bit.ly/3ANS23x>
- ESIC (2018). *Gamificación y realidad virtual*. ESIC. <https://bit.ly/3r5oQRd>
- Gartner (2019). *Gartner Hype Cycle*. Gartner. <https://gtmr.it/3ANKePe>
- Girvan, C. (2018). What is a virtual world? *Educational Technology Research and Development*, 66(5), 1087-1100. <https://doi.org/10.1007/s11423-018-9577-y>
- Gobbi, J. (2019). Viajes y nuevas representaciones: realidad virtual, video 360 y los límites del turismo. In *XXI Congreso de la Red de Carreras de Comunicación Social y Periodismo (UNSA)*. <https://www.aacademica.org/21redcom/285>
- Granitz, N. & Forman, H. (2015). Building self-brand connections: Exploring brand stories through a transmedia perspective. *Journal of brand management*, 22(1), 38-59. <https://doi.org/10.1057/bm.2015.1>
- Guarinos, V., & Cobo-Durán, S. (2020). The expanded story from transmedia as a business model: The case of Stranger Things. In *Handbook of research on transmedia storytelling, audience engagement, and business strategies*, (pp. 382-395). IGI Global.
- Gutiérrez, A., & Tyner, K. (2012). Educación para medios, alfabetización mediática y competencia. *Comunicar*, 19(38), 31-39. <https://doi.org/10.3916/C38-2012-02-03>
- Hayeon-Song, J., Thao PH Nguyen, K., & Namkee, P. (2021). Virtual reality advertising with brand experiences: the effects of media devices, virtual representation of the self, and self-presence. *International Journal of Advertising*, 40(7), 1096-1114. <https://doi.org/10.1080/02650487.2020.1834210>
- Hernández-Sampieri, R. (2018). *Metodología de la investigación*. McGraw-Hill.
- Hilvert Bruce, Z., Neill, J. T., Sjöblom, M. & Hamari, J. (2018). Social motivations of live-streaming viewer engagement on Twitch. *Computers in Human Behavior*, 84, 58-67. <https://doi.org/10.1016/j.chb.2018.02.013>

- IAB (26th January 2022). *Top tendencias digitales 2022*. IAB Spain. <https://bit.ly/3gVdl5n>
- Jayawardena, N. S., Thaichon, P., Quach, S., Razzaq, A., & Behl, A. (2023). The persuasion effects of virtual reality (VR) and augmented reality (AR) video advertisements: A conceptual review. *Journal of Business Research*, 160. <https://doi.org/10.1016/j.jbusres.2023.113739>
- Jenkins, H., Ford, S., & Green, J. (2015). *Cultura transmedia: la creación de contenido y valor en una cultura en red (Vol. 60)*. Editorial Gedisa.
- Jiménez-Marín, G., Bellido-Pérez, E., & Cortés, Á. L. (2019). Marketing sensorial: el concepto, sus técnicas y su aplicación en el punto de venta. *Vivat Academia*, 148, 121-147. <http://doi.org/10.15178/va.2019.148.121-147>
- Kim, H.K., Park, J., & Choe, M. (2018). Virtual reality sickness questionnaire. *Applied Ergonomics*, 69, 66-73. <http://doi.org/10.1016/j.apergo.2017.12.016>
- Kinder, M. (1991). *Playing with Power in Movies, Television, and Video Games: from Muppet Babies to Teenage Mutant Ninja Turtles*. Los Angeles, University of California Press.
- Lacoboni, M. (2009). *Las neuronas espejo*. Katz.
- Leung, X. Y., Lyu, J., & Bai, B. (2020). A fad or the future? Examining the effectiveness of virtual reality advertising in the hotel industry. *International Journal of Hospitality Management*, 88, 1-10. <https://doi.org/10.1016/j.ijhm.2019.102391>
- Lo, W.H., & Cheng, K.L.B. (2020). Does virtual reality attract visitors? The mediating effect of presence on consumer response in virtual reality tourism advertising. *Inf Technol Tourism*, 22, 537-562. <https://doi.org/10.1007/s40558-020-00190-2>
- Manovich, L. (2006). *El lenguaje de los nuevos medios*. Paidós Ibérica.
- Martí-Parreño, J. (2010). *Marketing y videojuegos*. ESIC Editorial.
- Martín-Ramallal, P., & Ruiz-Mondaza, M. (2024). Realidad virtual y metaversos como canal e inspiración de fashion films. Branded content inmersivo y moda. *Fotocinema, Revista Científica de Cine y Fotografía*, 28, 299-328. <https://doi.org/10.24310/fotocinema.28.2024.17825>
- Martín-Ramallal, P., & Bertola-Garbellini, A. (2021). La realidad virtual como instrumento de advertainment para la publicidad transmedia. In Rosalba Mancinas-Chávez (Ed.), *La comunicación a la vanguardia. Tendencias, métodos y perspectivas*, (pp. 2661-2684). Fragua.
- Martín-Ramallal, P., & Micaletto-Belda, J. P. (2021). TiKToK, red simbiótica de la generación z para la realidad aumentada y el advergaming inmersivo. *Revista de Comunicación*, 20(2), 223-242. <https://doi.org/10.26441/RC20.2-2021-A12>
- Martín-Ramallal, P., Morejón Llamas, N., & Micaletto Belda, J.P. (2023). Metaversos y avatares. Virtualización, identidad de género y nuevas generaciones. *Ámbitos. Revista de Estudios de Ciencias Sociales y Humanidades*, 17(1), 1-26. <https://helvia.uco.es/handle/10396/6591>
- Mauricio-Calvo, L., & Serrano-Tellería, A. (2021). Metodología para la valoración de la transmedialidad en los contenidos periodísticos. Doxa Comunicación. *Revista Interdisciplinar de Estudios de Comunicación y Ciencias Sociales*, 345-379. <https://doi.org/10.31921/doxacom.n32a16>
- Méndiz-Noguero, A. (2012). Advergaming. Concepto, tipología, estrategia y evolución histórica. *Revista ICONO 14. Revista científica De Comunicación Y Tecnologías Emergentes*, 8(1), 37-58. <https://doi.org/10.7195/ri14.v8i1.279>
- Meta-Quest (2022). *Horizon Worlds*. <https://ocul.us/3LG91tZ>
- Morotti, E., Donatiello, L., & Marfia, G. (2020). Fostering fashion retail experiences through virtual reality and voice assistants. In *2020 Conference on Virtual Reality and 3D User Interfaces* (pp.338-342). IEEE. <http://doi.org/10.1109/VRW50115.2020.00074>
- Muñoz-Rocha, C. I. (2016). *Metodología de la investigación*. Oxford University.
- Nakata, M., Okumura, Y., & Mulase, Y. (2021). *Information processing apparatus and image display method*. U.S. Patent and Trademark. <https://bit.ly/3dCY90I>
- Oculus (2021). *Testing in-headset vr ads*. Oculus. <https://ocul.us/3xybMpV>
- Polo-Serrano, D., & Martín-Herrera, I. (2023). Estudio de las plataformas de inteligencia artificial Copy.ai y ChatGPT: la creación de mensajes para entornos social media. In *Desafíos y retos de las redes sociales en el ecosistema de la comunicación (Vol.1)*. McGraw-Hill. <https://dialnet.unirioja.es/servlet/articulo?codigo=8939133>
- Premsky, M. R. (2012). *From digital natives to digital wisdom*. Corwin Press.
- Real Academia Española. *Diccionario de la lengua española*, 23.ª ed., [versión 23.7 en línea]. Empatía. <https://dle.rae.es/empat%C3%ADa>

- Recktenwald, D. (2017). Toward a transcription and analysis of live streaming on Twitch. *Journal of Pragmatics*, 115, 68-81. <https://doi.org/10.1016/j.pragma.2017.01.013>
- Sánchez-Gonzales, H. M., & Benítez-Gutiérrez, A. (2021). Periodismo de inmersión y de marca en la información educativa y cultural. El caso de Lab de RTVE. *Comunicación y Sociedad*, 18, 1-28. <https://doi.org/10.32870/cys.v2021.7728>
- Sánchez-Mesa Martínez, D. (2019). *Narrativas transmediales: La metamorfosis del relato en los nuevos medios digitales*. Editorial Gedisa.
- Sanz-Marcos, P., & Micaletto-Belda, J.P. (2019). Análisis semiótico de los valores de marca representados en el formato de branded content en los festivales publicitarios españoles, *Sphera Publica*, 1(19), 47-71. <https://sphera.ucam.edu/index.php/sphera-01/article/view/360>
- Sartori, G. (2012). *Homo videns: la sociedad teledirigida*. Editorial Taurus.
- Scolari, C. A., & Establés, M. J. (2017). El ministerio transmedia: expansiones narrativas y culturas participativas. *Palabra Clave* 20(4), 1008-1041. <https://doi.org/10.5294/pacla.2017.20.4.7>
- Selva-Ruiz, D., & Martín-Ramallal, P. (2019). Realidad virtual, publicidad y menores de edad: otro reto de la cibersociedad ante las tecnologías inmersivas. *ICONO14*, 17(1), 83-110. <https://doi.org/10.7195/ri14.v17i1.1234>
- Sherman, W. R., & Craig, A. B. (2018). *Developing Virtual Reality Applications: Foundations of Effective Design*. Morgan Kaufmann
- Sidorenko-Bautista, P., Calvo-Rubio, L. M., & Canero-de-Julián, J. I. (2018). Marketing y publicidad inmersiva: el formato 360º y la realidad virtual en estrategias transmedia. *MH Communication Journal*, (9), 19-47. <https://doi.org/10.21134/mhcj.v0i9.227>
- Stake, R. E. (2020). *Investigación con estudio de casos*. Ediciones Morata.
- Stephenson, N. (1992). *Snow Crash*. Random House Publishing.
- Stuart, H. (2018). *Virtual Reality Marketing: Using VR to Grow a Brand and Create Impact*. Kogan Page Publishers.
- Unity (2022). *The Virtual Room*. Unity. <https://create.unity.com/virtual-room-ad>
- Van-Berlo, Z. M., Van Reijmersdal, E. A., & Eisend, M. (2021). The gamification of branded content: A meta-analysis of advergame effects. *Journal of Advertising*, 50(2), 179-196. <https://doi.org/10.1080/00913367.2020.1858462>
- Viñals-Blanco, A. (2016). El ocio conectado, móvil, transmedia y multisoporte de los jóvenes. *Fonseca*, 13(13), 99-113. <https://doi.org/10.14201/fjc20161399113>
- VIU (2016). Realidad virtual: efectos secundarios. VIU. <https://bit.ly/3yEZ5cZ>
- WOW Emotions (2022). *Advergames*. WOW. <https://bit.ly/3DFQBYe>
- Yin, R. K. (2017). *Case study research and applications*. Sage publications.
- Yoo, S., Ackad, C., & Kay, J. (2017). Evaluating the Actual and Perceived Exertion Provided by Virtual Reality Games. In *Conference on Human Factors in Computing Systems* (pp. 3050-3057). ACM. <https://doi.org/10.1145/3027063.3053203>