

Analysis of the use of advergaming and metaverse in Spain and Mexico

Análisis del uso del advergaming y metaverso en España y México

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ABSTRACT

Introduction: Youngsters are the segment that dedicates the most time to the online entertainment and thus, brands that realize this behavior, use the videogames like Roblox to impact and contact with them.

Objective: approximate to the Metaverse concept and its relationship with the *advergaming*, through the comparison between two population segments: 18–28-year-old university students from Spain and Mexico. **Methodology:** mixed qualitative-quantitative based on the content analysis -study of 4 brands in Roblox- and an exploratory survey (n=300). **Results:** The surveyed people do not generally know what the *advergaming* is and do not remember the advertisements they watched while playing videogames, but they mention spontaneously some brands used inside the videogame, mainly related to the fashion, technology and food industries and did not realize them being advertised. **Conclusions:**

The results show that there are no significant differences between neither between sex, nor country of origin of the surveyed people. The videogames are the most extended and adopted way of metaverse currently. Facebook is the most known company as an example of metaverse related enterprise and the 30% of the survey believe that metaverse was created by Facebook. There is a lack of awareness about the terms related to the advertisement inside the videogames, nevertheless the players accept widely them while playing their favorite titles, even they qualify them as innovative.

KEYWORDS: advergaming; video games; advertising; metaverse; branded entertainment; Roblox; entertainment.

RESUMEN

Introducción: Los jóvenes son el segmento poblacional que más tiempo dedica al ocio online, y las marcas, conocedoras de este dato, utilizan los videojuegos como Roblox para impactar en ellos. **Objetivos:** realizar una aproximación al concepto de metaverso y su relación con el advergaming, a través de la comparación entre dos conjuntos poblacionales: estudiantes universitarios españoles y mexicanos de entre 18 y 28 años de edad. **Metodología:** mixta cuantitativa-cualitativa basada en el análisis de contenido -estudio de 4 marcas en Roblox- y una encuesta exploratoria (n=300). **Resultados:** los encuestados no saben qué es el *advergaming* y afirman no recordar la publicidad, pero mencionan espontáneamente marcas dentro del videojuego, las cuales pertenecen a la industria de la moda, tecnología y alimentos; no obstante, no los catalogan como “anuncios”. **Conclusiones:** los resultados arrojan que no hay diferencias significativas entre sexo, ni por país de origen. Los videojuegos son la forma de metaverso más extendida y adoptada actualmente. Facebook es la empresa más citada como ejemplo de compañía relacionada con el metaverso y el 30% de la muestra piensa que el metaverso ha sido creado por Facebook. Existe un desconocimiento general sobre términos relacionados con la publicidad en los videojuegos. Sin embargo, los jóvenes aceptan este tipo de inserciones mientras juegan e incluso las califican como innovadoras.

PALABRAS CLAVE: advergaming; videojuegos; publicidad; metaverso; branded entertainment; Roblox; ocio.

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CONTENIDO

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Translation by **Paula González** (Universidad Católica Andrés Bello, Venezuela)

1. Introduction

In recent years, brands have designed new interactive entertainment formulas to increase their media reach and improve the effectiveness of their campaigns and communications (Niño et al., 2015; Bonales-Daimiel and Miguélez-Juan, 2022). It is a reality that, faced with a current situation that is oversaturated with information and content, advertisers resort to moments of leisure and fun for consumers to experiment with the presence of their brand. Therefore, a more emotional relationship can be created with the public, who demand not only products from them, but a philosophy of life that is known through brand values. To do this, companies use a wide variety of formats and media when creating this content.

Young people are the segment of the population that spends the most time on online entertainment. Specifically, more than half spend three hours a day on the Internet and use it mainly to connect to social networks, listen to music, and watch series and/or movies (We are social, 2022). Consequently, video games have evolved, increasing their presence in other fields, and becoming one of the most relevant industries in terms of leisure, creativity, and culture. In this way, social interactivity becomes one of the main characteristics of the video game sector (Costa Sánchez and Piñeiro Otero, 2013).

In this context, this research focuses on analyzing the *advergaming* scenario in two countries that share the same language and are representative in terms of consumption within this industry: Spain and Mexico. In Spain, this entertainment sector ranks in the top 10 worldwide due to its market size, which has a turnover of more than 1,700 million a year, and shows the year-on-year growth of close to 20% (AEVI, 2020), while in Mexico video game sales amounted to 1,317 million dollars in 2019 and have increased every year for the last decade (Euromonitor, 2020).

The video game sector bills more than the film or music industry (Tapia et al., 2022) and continues to grow with the second fastest increase rate in eSports consumption in Europe, billing more than 35M€ in 2019 (DEV, 2020), and with almost 16 million gamers, of which 46% are women (Facebook, 2020; Accenture, 2021).

The above figures demonstrate the importance of this sector, a fact that is also directly related to advertising investment since brands are in a constant search for the best channels to efficiently reach their target audience. For all these reasons, this work explores both countries, showing the degree of knowledge that users have about virtual realities and detailing their level of acceptance of the content of specific brands within video games.

1.1. Delimitation of the *advergaming* concept

The first definition is established by Chen and Ringel in 2001 as "the use of interactive game technology to send advertising messages to consumers (...) and the brand is directly integrated into the game environment" (Méndiz, 2010: 42). This type of advertising within video games is called *advergaming*, and makes the player unable to distinguish between persuasion and fun.

In a study published by van Berlo et al. (2021), there are two currents related to the effectiveness and acceptance of advertising in video games. The first focuses on the main advantages of *advergaming*, which are brand integration and exposure since a user can spend hours playing and with maximum attention. Through this formula, users have a positive predisposition towards *advergames*, which drive positive and hedonic attitudes (Waiguny et al., 2014; van Berlo et al., 2021). They think that *advergames* are an effective advertising format due to their gamified and attractive nature since they are the ones who have chosen the interaction from their comfort zone, which increases recall and virality. The second theory is based on the disadvantages and defends the opposite, that *advergames* are less liked than other advertising formats (Evans et al., 2018) and are misleading due to their covert and interactive design, which causes serious problems for consumers to recognize the ad (Skiba et al., 2019).

According to a study carried out by 2CV for Facebook (Margaritelli, 2020), ads in games encourage users to play longer and more frequently, which implies greater exposure to them. Specifically, 47% of users played more often and 51% played longer due to in-game advertising. Therefore, and according to this, brand placement is very important. According to Chen and Ringel (2001), ads are more effective when they are consistent with the theme of the video game. For example, a fuel brand in a car racing video game.

1.2. New virtualities: metaverse

Within the virtual industry, in recent months, a great echo of the word "metaverse" has been socially and mediatically generated, which to the surprise of many, is not new since it appeared for the first time in the field of science fiction in 1992 by Neal Stephenson, author of the postmodern novel *Snow Crash*. He used it to designate a fictional world inhabited by a series of user-controlled avatars. However,

this term became popular worldwide in October 2021, after Facebook announced its name change to “Meta” and its goal to focus heavily on 3D experiences in virtual environments. The metaverses -also called MDV3D, Virtual Digital Worlds in 3 Dimensions- are three-dimensional virtual spaces mediated by computers and composed of symbols and icons of their own or real. Likewise, they are characterized by having avatars that act as main characters in the narrative, crossing physical and geographical barriers, and communicating with each other through that virtual environment (Lévy, 1999; Lemos, 2007).

The Metaverse Roadmap, published by Smart et al. (2007), predicted that in the following ten years the Internet would become a digital playground that would keep users in an avalanche of information, always immersing themselves in virtual worlds (Terdiman, 2007).

Games like Roblox, Minecraft, Halo, or Fortnite, which are perceived as the most fun way to hang out and an interesting means of social interaction by younger gamers (Aarsand, 2013) have well-established platforms operating in the metaverse, but they are not the metaverse. In these video games, purchases and promotions of goods, services, movies, and entertainment are integrated only into the gaming platforms. Consumers exist only within each of the gaming platforms with their chosen avatars and play with those of their friends, but differently in each of the games and still very far from the idea of a single digital identity applicable to all the locations of the metaverse.

Roblox is an interactive digital platform founded in 2006 that has more than 100 million monthly active users, making it one of the most popular game development suites in history. According to its official website (2022), 28 billion hours have been played since 2008 with 1.2 billion total interaction hours each month and a peak of 2.7 million simultaneous users. This game allows its millions of users and developers to produce their own multiplayer and immersive experiences. The platform defines its corporate mission on its official website (2022) as: "Roblox's mission is to bring the world together through play. We enable anyone to imagine, create, and have fun with friends as they explore millions of immersive 3D experiences, all built by a global community of developers", (Roblox). The company highlights the importance of users being able to imagine and create their own reality.

2. Objectives

The main objective of this research is to make an approximation to the concept of the metaverse and find its relationship with adver gaming, in this way it is possible to analyze to what degree these virtual dimensions influence the advertising sector and the entertainment industry.

The second objective is to identify the brands that are betting on these modalities and determine which are the most remembered by users. Additionally, it is sought if there are significant differences between men and women, and if there are distinctions according to the country of origin of the players: Spain and Mexico.

For this, a comparison is made between the level of knowledge of adver gaming and the metaverse as advertising formulas that Spanish and Mexican university students between 18 and 28 years of age have. This segment is studied because it is the one that spends the most time on online leisure (We are social, 2022).

3. Methodology

This research has a mixed quantitative-qualitative methodology based on 3 main tools: 1) content analysis -the study of 4 cases of adver gaming- 2) conducting a survey to contrast the information previously collected; 3) application of the chi-square test to confirm the degree of knowledge that young people have about concepts related to adver gaming and the metaverse; Likewise, it can be determined if there are significant differences between the analyzed population of each country.

We chose to work with case analysis, because in this way, the main elements that advertising has in video games can be known, becoming a useful communication technique to reach a young audience. Likewise, content analysis was used as a qualitative technique, because it helps to understand and analyze the brand strategy used by different companies -Nike, Escada, Vans, and Hyundai- within the Roblox video game, allowing at the same time, to illustrate through these examples the characteristics of gamification defined in the introduction to this research, as well as knowing how they have been adapted to advertising practice and the intrinsic value they possess (Stake, 2005). This makes it possible to observe the similarities and differences between the different cases (Daymon and Holloway, 2010).

For this analysis, a matrix was elaborated based on the Experiential Matrix by Schmitt (2006) and the Experiential Matrix of an EMC by Galmés and Victoria (2010), which considers the necessary parameters to study the brands present in the Roblox game. Table 1 shows the attributes used.

Table 1. *Analysis parameters for the study of brands in Roblox*

Attributes
Brand
Name of the experience
Game modality
Products for the avatars
URL
Release date
Last update date
Maximum number of participants
Number of visits
Number of positive votes
Number of negative votes
Positivity percentage
Number of favorites
Average game time
Graphics (Average of CPS, Max CPS, and Min CPS. Frames per Second CPS)
Media impact on YouTube
Devices for use
Payment system

Source: Own elaboration

These attributes seek to describe the dynamics of the game, determine its graphic style, quantify the interaction with the public, and provide information on the media impact generated by these games. The content review was applied to the 4 brands chosen for the study; consequently, the main similarities and differences between companies can be found.

On the other hand, to survey the Spanish and Mexican populations between 18 and 28 years old, an online questionnaire was designed that was in circulation during December 2021, obtaining a total of 300 responses, 150 surveys from each country (Spain and Mexico). The universe of the sample was made up of men and women, mostly university students of advertising, journalism, public relations, and audiovisual communication careers, all of them belonging to medium, medium-high, and high socioeconomic indicators.

With this exploratory type survey, we seek to find out the knowledge on advergaming and metaverse, as well as the spontaneous and suggested recall of advertising in video games and their opinion about it – discriminating mainly by gender, age, and country-. In this way, it can be determined if there are significant differences, or not, through the chi-square statistical test.

The selection of the participants was random. The link was shared on social networks such as WhatsApp, Twitter, and LinkedIn, as well as emailed to students from various universities. The survey was designed with a thematic structure. To do this, a Google form was used that was divided into two blocks. In the first -through a series of open-ended questions- sociodemographic data (gender, age, studies, country of origin) were requested, and the respondents were asked to write the definitions of terms in their own words, focusing mainly on the advergaming industry and the metaverse. This intended to determine the level of knowledge that users have about the sector to be analyzed, such as, for example, if they know what the metaverse is, how advergaming works, and what an avatar is.

In the second block, these concepts are explained and the participants were asked about companies that were doing some action related to the metaverse or advergaming. In this way, the perception and recall of brands that they have are known. Likewise, they were asked about Roblox, Minecraft, Halo, and Fortnite as examples of collaborative and world-building video games that include metaverse features in their gameplay, to determine the level of usability, and then they were asked to spontaneously mention some advertisement that they remembered, as well as the presence of brands within video games. With this, their impact can be analyzed and, therefore, the effectiveness of this advertising strategy, especially in the case of Roblox.

4. Results

4.1. A window towards *advergaming*: a content analysis of case studies.

A brand studied and mentioned by the Spanish and Mexican respondents is Nike, which has created its own metaverse in Roblox called *Nikeland*, with courts, shops, and games. Nike has designed this world to their needs, within the immersive 3D space of Roblox where the different players must complete a series of mini-games for which they will obtain a score and a certain number of coins that will allow them to buy clothes, accessories, pets, and furniture. The currency used in the game is gold medals and air bubbles.

This space is inspired by the brand's main headquarters and is divided into six important and interactive sections: My Courtyard, Airtopia, Pet Store, Lounge, Showroom, and NPLR Center. *My Courtyard* is the space that is assigned to each of the users and is similar to a soccer, basketball, tennis, or hockey field. Furniture, textures, vegetation, and obstacles can be added to this space since the purpose of the

space is for the player to invite their friends and challenge them to one of the available minigames. The store of products for the digital avatar is in the *Showroom*. All of these are part of the brand's official catalog or special collections and can be found on its website. There are sneakers, sports tops, pants, and accessories. The Pet Shop is right next to the Showroom. This can also be found in the new Airtopia zone, the latest zone added to the experience. Next is the Lounge, which is the largest building and is dedicated to tutorials. If users dedicate themselves to exploring, they will be able to find shoe boxes where surprises are hidden. Finally, there is the NPLR Center, which contains the leaderboards of the top 30 players. The rating depends on the following categories: sessions played, time played, earned coins, and the number of likes of the personal space. In front of each of the boards, there is a podium with the avatars of the users who occupy the first three places in the classification.

Figure 1: *Nikeland in Roblox*



Source: screenshots of the game

Nike's goal is to make sports and play a lifestyle. In the future, the creation of digital sporting events, launches of exclusive products, and therefore, an increase in digital sales is proposed.

Escada, the German brand, has also created an *Escada Fairy Love Land* city to promote its fragrance thanks to the help of the Pavillon Noir agency. An amusement park that takes us to a world of stories and fantasy, almost dreamlike. The game consists of a series of mini-games scattered around the park with which visitors can win virtual items that represent the elements that make up the Fairy Love perfume: bottles, raspberries, pears, and jasmine flowers. In this way, Pavillon Noir propels Fairy Love into the metaverse because it dedicates a completely virtual world to it. Within their advertising strategies, it is added that users can also try to win a real Fairy Love perfume, by participating in a giveaway on Instagram.

Figure 2: *Escada in Roblox*



Source: Roblox web

Another brand, Vans, has created *Vans World*, a skate park that consists of having a good time with friends and competing with them to see who can do the most spectacular jumps while practicing tricks in the parks and customizing the equipment. The company itself defines the experience as *Off The Wall*, very much in line with the philosophy of this company. The goal pursued by this company is to create an experience within the Roblox metaverse so that brand followers can purchase and customize products for their digital avatar, ranging from sneakers, skateboards, pants, and even tops and backpacks. This space is inspired by famous places such as the *House of Vans* and various skateparks, such as the Vans skate park in California.

The gameplay is that the avatar must execute a series of tricks and compete in speed races with other players. Whoever finishes first will be the one with the chance to level up; they also receive different rewards, which can range from small amounts of Waffle Coins or experience points. The currencies are called waffle coins -the most common, they are scattered all over the map and the player can collect them by touching them while walking or riding a skateboard. Coins are used to purchase special items, and stat points, which are earned and help level up. Similarly, the user is rewarded for the time spent in the experience; that is, every 10 minutes they receive a check valid for 100 Waffle Coins. The user can also buy these points by paying 625 Waffle Coins or 199 Robux, equivalent to 2.38 euros. The challenges that players must perform are to do a trick, collect a certain number of coins, go to a certain location on the map, or win a race a certain number of times.

Figure 3: *Vans in Roblox*



Source: Vans, 2022.

Figure 4: *Vans in Roblox*



Source: own screenshots

Hyundai *Mobility Adventure* is the first virtual experience content on Roblox developed by a global automotive brand. This virtual space -collectively shared in which various users can meet and communicate with each other and experience Hyundai Motor's mobility offerings in the form of avatars - is made up of five virtual zones:

- 1) Festival Square: A central base camp for players to return from their explorations, where they can take part in festivals, celebrations, and car shows while interacting with other players.
- 2) Future Mobility City: An ultra-modern metropolis where players can experience Hyundai Motor's future mobility solutions and hydrogen fuel cell technology.
- 3) Eco-Forest (Powered by IONIQ): A recreational sphere offering slow, minimalist living enabled by the coexistence of eco-mobility technologies and fairy-tale fantasies.
- 4) Racing Park (Powered by N): A racing theme park where players can experience the latest advanced racing technologies and motorsports available through Hyundai Motor's high-performance N-brand cars.
- 5) Smart Tech Campus: a future technology research center where users can replicate the experiences of engineers and designers in a sophisticated environment. Hyundai Motor shows its product catalog through this online entertainment platform and thus aims to familiarize young people with them, as they know they are their potential customers.

Figure 5: Screenshots of Hyundai Mobility Adventure



Source: web Hyundai, 2022.

Figure 5 shows the graphic style that the Hyundai brand built in its 5 virtual worlds. The use of green and blue colors stands out.

Following the analysis parameters established in the methodology, the main results are detailed below. Table 2 allows the reader to know the peculiarities of each virtual experience to enter the world created by the analyzed brands.

Table 2: *Analysis of brands in Roblox*

Brand	Nike	Escada	Vans	Hyundai Motor Company
Name of the experience	<i>Nikeland</i>	<i>Fairy Love Land</i>	<i>Vans World</i>	<i>Hyundai Mobility Adventure</i>
Game modality	Minigames and space decoration	Minigames	Competition and exploration	Adventure. Exploration and roleplay
Products for the avatars	Sneakers, tops, t-shirts, sweatshirts, jackets, pants, accessories, and pets	Jars, raspberries, pears, and jasmine flowers	Tops, sweatshirts, t-shirts; customizable pants, accessories, backpacks, sneakers, and skateboards. There are also skateboard tricks and avatar upgrades.	Avatar customization, toy pets. Garage & Home & Car Customization
URL	https://www.roblox.com/games/7462526249/NIKELAND-AIR-TOPIA	https://www.roblox.com/games/8216652167/Fairy-Love-Land	https://www.roblox.com/games/6679274937/Vans-World	https://www.roblox.com/games/7280776979/Hyundai-Mobility-Adventure
Release date	September 12 th , 2021	October 12 th , 2021	April 14 th , 2021	August 19 th , 2021
Last update date	April 05 th , 2022	December 25 th , 2021	April 7 th , 2022	April 11 th , 2022
Maximum number of participants per server	24 participants	N/A	40 participants on a private server	30 participants
Total number of visits	12.594.593	1.590	61.129.959	3.482.137
Number of positive votes	32.729	N/A	157.959	11.182
Number of negative votes	6.620	N/A	10.753	3.175
Positivity percentage	83.176%	N/A	93.626%	77.885%
Number of favorites	94.436	33	449.204	80.867
Average game time	6 minutos	N/A	7 minutes and 62 seconds	12 minutes and 17 seconds

Graphics (Average of CPS, Max CPS, and Min CPS. Frames per Second CPS)	59,139 average CPS, 59,97 maximum CPS, and 54,61 minimum.	N/A	59,797 Average CPS, 60,036 Max CPS, 59,139 Min CPS.	59,756 average CPS, 59,786 maximum CPS, and 59,727 minimum CPS.
Media impact on YouTube	It has an official channel with around 1.68 million subscribers. Its promotional video “Nikeland on Roblox - Where Sport Has No Rules” managed to accumulate 3,825,742 views, 3,152 likes, and 305 comments.	Two streamers, Gemma Gallardo @gemita327 and @kunshikitty, were in charge of inaugurating the Escada metaverse in Roblox on their Twitch channel on December 15th and 16th, 2021, in Spain and Germany respectively.	It has a channel that has 3.55 million subscribers. The promotional video titled “Off The Wall” garnered 293,800 views, 12,597 likes, and 3,010 comments.	The promotional video titled “Jump into the Epic Journey” got 1,471,819 views, 531 likes, and 95 comments.
Devices for use	Enabled to play in the app on PC, smart tablets, and smartphones. Special features are available only for tablets or mobile.	Enabled to play in the app on PC, smart tablets, and smartphones.	Enabled to play in the app on PC, smart tablets, and smartphones. The experience does not contain special features for any device.	Enabled to play in the app on PC, smart tablets, and smartphones. The experience does not contain special features for any device.
Payment system	Free entry with the option to buy extras with Robux	Entry with payment	Free entry with the option to buy extras with Robux. Vans was the first company in 2021 to include game passes in their experience.	Free entry with the option to buy extras with Robux.

Source: Own elaboration based on data obtained from Rolimons, 2022

As can be seen, brands design their virtuality around their products and seek to make them accessible to the majority of the public. There are three fundamental elements for experiences to be assertive: 1) short duration of the game; 2) user customization; 3) continuation of the narrative, since the player can win prizes or points and get some reward. In each game the currency changes, but in all of them, you can pay with Roblox and euros to acquire a special skin¹ for the avatar. Emblems are badges that users can make and collect and are present in all games.

Another important dimension that should be taken into account is the media impact of these experiences on YouTube because with this, the brands use another dissemination channel to create synergy between their platforms and increase the visibility of their content. For example, Nike has around 1.68 million subscribers on its official channel. On November 18th, 2021, Nike uploaded a one-minute promotional video entitled: “NIKELAND on Roblox - Where Sport Has No Rules” to announce its launch and managed to accumulate 3,825,742 views, 3,152 “likes”, and 305 comments.

¹ It refers to the appearance of a video game character. In video games, collaborations with textile brands to design clothes and accessories for them are common. Gamers are willing to pay to customize their avatars.

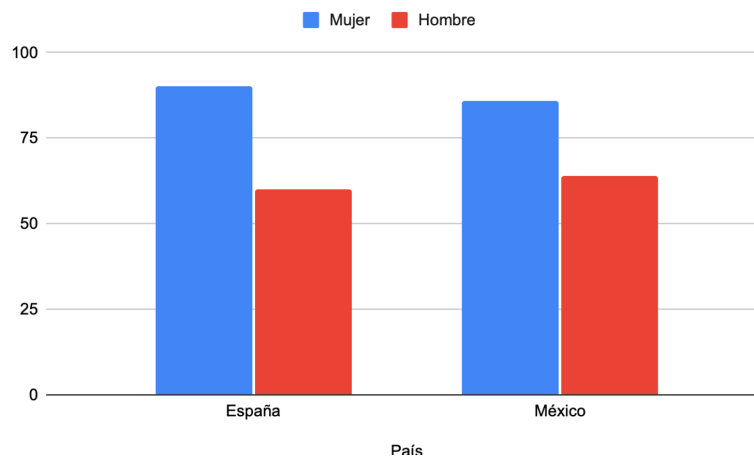
The world of Nike is shown, as well as a couple of interactions and products available for sale. Another very popular video belongs to a YouTuber who is known for creating humorous content recreating moments from pop culture, it is Lankybox, who has around 16.7 million subscribers. His video is titled: *Can We Get The RAREST SHOES In ROBLOX NIKELAND!?*, and is presented as a collaboration with the brand, managing to accumulate 549,142 views, 2,601 likes, and 205 comments.

Another example of visibility on different channels is found in the Roblox brand, which announced the launch of the experience: “Vans World” on its official YouTube channel. Roblox has 3.55 million subscribers. The promotional video released on September 1st, 2021, lasted only 34 seconds, so its scope was surprising. Vans has also published several videos, mostly to promote events and exclusive prize codes, such as clothing and backpacks, among other products. One of these videos entitled “How to Get FREE *Prizes* ROBLOX VANS WORLD EVENT!”, got 195,712 views, 16,695 likes, and 12,860 comments on YouTube. However, the most popular video of this experience belongs to YouTuber Flamingo, who has around 10.5 million subscribers. The video is called: “ROBLOX FEET UPDATE”, it accumulated 2,221,934 views, 78,450 likes, and 8,026 comments. The YouTuber tests the experience, personalizes his avatar with the items, and participates in a couple of races. His opinion is positive and it was indicated that it is not a paid collaboration with the brand.

4.2. Top impressions of surveyed users

The universe of the sample was distributed as follows:

Figure 6. *Sample population by gender*



Source: Own elaboration.

In both countries, there were more responses from women than from men. The average age in Spain was 24 years, while in Mexico it was 21 years. They are all university students in the field of audiovisual communication, advertising, public relations, and related careers. In the first block of the survey, the aim is to find out the degree of knowledge that the respondents have about the advertising industry within video games and 64% of the Spaniards and 79% of the Mexicans surveyed said they did not know what advergaming is. This reflects that most users are unaware of the term. Those who assured that they were aware of the concept, defined it as "advertising within video games, an interesting way of reaching adolescents", female, 24 years old, Spain. Others referred to these as video games created by brands for advertising purposes.

Regarding the question of whether they know which companies are doing some activities related to advergaming, 36% of Spaniards and 50% of Mexicans are aware of them and name Nintendo, PlayStation, and Disney; among others.

Table 3. Brands that are advergaming mentioned by respondents

Spain ranking	Mexico ranking
Nintendo	Pepsi, Coca-Cola, 7-up, Nesquik
Balenciaga, Zara, Adidas, Nike, Fortnite	PlayStation, Free fire and Fortnite
Ron Barceló	Bimbo y Domino's
FIFA, Among us, Fall Guys	Kpop, Disney, Marvel, DC Comics, and GAMELOFT or King

Source: Own elaboration based on the answers of the respondents

Advertising in video games is perceived by 48% of Spaniards as something interesting, intelligent, useful, and even innovative. "I think it's a good idea as long as they don't break with the dynamics of the game since they can be annoying and have a negative impact on the brand," mentions a male user, 21 years old, Spain. 42% do not like it and 9% answered "I don't know".

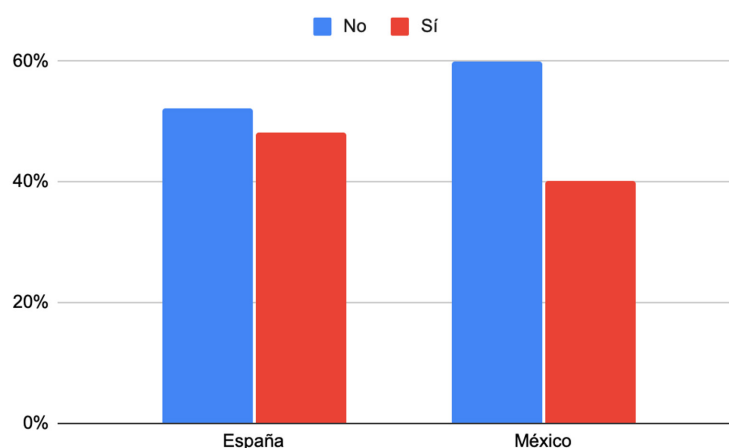
A young female 20-year-old user highlighted that "advertising interrupts leisure". For their part, 60% of Mexican users indicated that advertising in this type of game is well implemented and that it makes sense within the narrative. "As long as it's not intrusive, and it's well integrated, I think it's a good thing for ad development," says a male respondent, 19 years old, Mexico.

The remaining 40% indicated that it is annoying and intrusive. "It is not bad as long as it is organic and has logic within the context of the video game, for example, a Red Bull ad in a competitive or sports game or is not the same as being in a game like Minecraft", points out a 19-year-old male player, Mexico. "Sometimes it's excessive and annoying," adds another male player, 20 years old, Mexico.

Another factor analyzed is the impact or effect of advertising on the players, of which 15% respond that there is none; 18% do not know, and 21% affirm that it causes discomfort, boredom, and rejection. Likewise, another 21% point out that it generates desire, attention, and interest; and 24% believe that it has other effects, such as being part of the top of mind of brands, the reduction in the price of the video game, having new skins, or objects to improve branding, becoming a less intrusive form of advertising.

Regarding the reduction in the price of the game thanks to the advertising inserts, the majority of those surveyed, from both countries, agree that it is not noticeable when buying the games.

Figure 7. Price reduction for advertising use



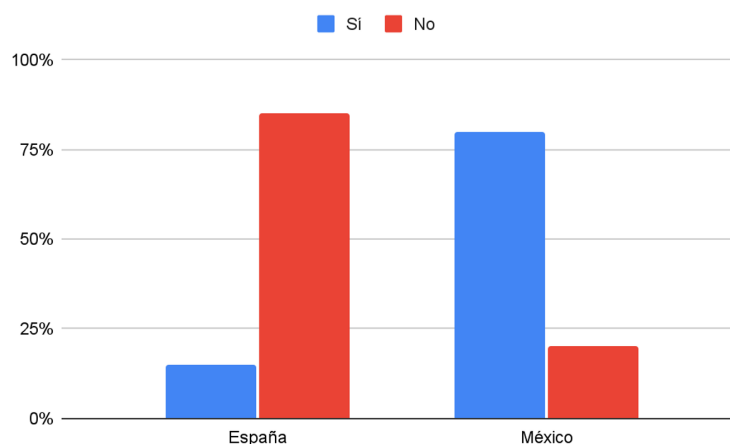
Source: Own elaboration.

Moreover, 58% think that they should be paid for consuming advertising within the video game and 42% do not. 76% mention that the type of advertising to be consumed could be selected, while 24% do not have a problem with the ads. Next, 67% of respondents agree that brands could use their in-game data to personalize the advertising they present to them; while 33% answered that they would not accept the use of their personal information.

When talking about the insertion of products within video games, the Spanish respondents give examples of clothing, as is the case of Animal Crossing by H&M or Nike; they also talk about music -Travis Scott's album- about technology, mentioning Apple; cars in Nintendo's Mario Cars, and fast food in Cyberpunk 2077. Mexican students mention clothing brands, cars like Jaguar, and in the case of technology, the appearance of Samsung is repetitive. In both countries, the Coca-Cola brand is named. Collaborations with Marvel, Halo, John Wick, Heineken, Travis Scott, Ferrari, and Balenciaga are also recognized.

Regarding the recall of advertisements within the video game, the majority of Spanish players indicated that they do not recall any of them. This gives rise to a contradiction on the part of the Spanish respondents since they mention brands that they remember from the video game, but they do not catalog them with the “ads” label. On the other hand, 80% of Mexican gamers affirm that they do remember them.

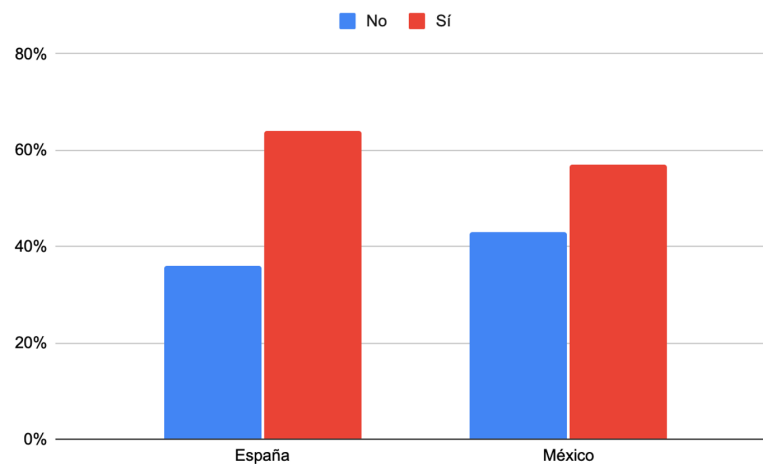
Figure 8. Recall video game ads



Source: Own elaboration.

In the second block of the survey, participants were asked about their level of knowledge of the metaverse. Most do know what the metaverse is and answer that it is a virtual world; a digital world; a virtual reality. “The metaverse is a virtual space that is expected to be a parallel reality to the physical one, in which you can interact with other people through avatars”, female, 22 years old, Spain. “It is a parallel and virtual world in which you can do almost the same things as in the real world”, female, 23 years old, Mexico.

Figure 9. *Knowledge of the metaverse*



Source: Own elaboration.

Furthermore, several respondents (30%) mention the Facebook brand and even consider it the creator of the metaverse. Here are some of the responses:

- “Virtual environment created by Facebook -now called Meta-; a virtual reality created by the Facebook group”, male, 23 years old, Spain.
- “A Meta proposal to create a virtual world; the combination of large companies like Facebook in accumulating more power and space in the technology sector”, male, 21 years old, Mexico.
- “A universe parallel to ours that is currently accessed through the metaverse glasses of the company Meta (Facebook)”, female, 23 years old, Mexico.
- “A set of interconnected networks that allow us to have a social ecosystem through various apps that correlate to form a more immersive interactivity within a social network”, female, 20 years old, Mexico

Concerning their knowledge about companies that are doing something in the metaverse, 76% of young Spaniards and 79% of young Mexicans give examples of companies. Both Spaniards and Mexicans agree and name Facebook (80% and 71% respectively) -now Meta-. It is followed by Nike, Zara, and Microsoft (with 12%), then H&M and Adidas (with 8%). While the Apple, Nike, Fortnite, VRChat, and Twitch brands add up to 7% respectively. Balenciaga, Gucci, Rayban, Snapchat, Twitter, Tencent, bytedance, and the Government of Catalonia have 4% each one.

Table 4. Brands with a presence in the metaverse mentioned by respondents

Spain ranking	Mexico ranking
Facebook	Facebook
Nike, Zara y Microsoft	Apple
H&M, Adidas	Nike - Fortnite
Balenciaga, Gucci, Rayban, Snapchat, Twitter, Tencent, bytedance and El Govern de Catalunya	VRChat and Twitch

Source: Own elaboration based on the answers of the respondents

Next, 91% of Spaniards and 79% of Mexicans know what an avatar is. 82% of Spaniards have made an avatar at some point compared to 71% of Mexicans. Among those who say yes, several mention the Habbo game, Facebook, Snapchat, and Xbox. There is a consensus on the definition of an avatar since the respondents answered that “it is a virtual reality character with the characteristics you want”, female, 20 years old, Mexico.

Regarding video game knowledge and usability, 36% of Spanish respondents know 2 games from a list of 4 -Roblox, Minecraft, Halo, and/or Fortnite- but 70% have only played one. 64% of Mexican participants know all 4 games, but 50% play only one, compared to 21% who say they play 3 and 4. Only 7% play two. Minecraft is the most mentioned game and Roblox is the least known by the surveyed sample. It should be noted that the answers were equal between men and women, in both countries.

After reading and structuring the data obtained from the surveys, the chi-square statistical test was applied to confirm whether the user's gender is an independent variable to the degree of knowledge that each one has about advergaming, metaverse, and avatars. This test was performed with the data separated by country and divided between men and women.

In the case of Spain: ($X^2= 2.06$; $gl=2$; $p=0.35$), it is found that the value is not statistically significant, so the null hypothesis is rejected, showing that the degree of knowledge they have on advergaming, the metaverse, and avatars does not depend on the user's gender.

Table 5. Chi-square- population of Spain

Knowledge about	Men	Women	
Advergaming	0.42666673	0.54954675	
Metaverse	0.07094355	0.09137529	
Avatars	0.40370435	0.51997121	
X2	0.90131463	1.16089325	2.06

Source: Own elaboration.

For its part, in the case of Mexico, ($X^2= 5.39$; $gl=2$; $p=0.05$), it is again shown that there is no direct dependence between the variables of the degree of knowledge and gender. We observe that the rejection of the null hypothesis has more force than its acceptance since we are based on a very unlikely situation.

Table 6. *Chi-square- population of Mexico*

Knowledge about	Men	Women	
<i>Advergaming</i>	0.25700876	0.19710446	
Metaverse	1.28808069	0.98785136	
Avatars	1.50615388	1.15509546	
X2	3.05124333	2.34005127	5.39

Source: Own elaboration.

Therefore, although there is a higher percentage of men who do know advergaming, the metaverse, and avatars, the chi-square test shows that the variables of gender and degree of knowledge are not associated. It cannot be generalized that men know more about the video game industry or vice versa.

5. Discussion

Starting from a context in which traditional advertising has an increasingly smaller budget, it is common for brands and organizations to seek new ways to connect with consumers and other key audiences -employees, associations, etc.-. In general, audiences are becoming more hyper-connected and hyper-segmented every day, and within these segments, there are also digital natives, who are the new consumers that companies must retain. Therefore, along the way to finding new ways to advertise, and even generate brand content, the motivation of different companies arises to be within the virtuality of video games, although these actions are not always aligned with the interests of their audience.

The theory indicates that the metaverse is a set of three-dimensional virtual spaces mediated by computers and composed of symbols and icons of their own or real (Barneche et al., 2012); also, the projection of the author Terdiman, (2007) was correct, since the metaverse is and will continue to be, a virtual world to express real elements, create community, and expand the possibilities of contact between users.

According to the survey, some participants are clear about the meaning and origin of the metaverse, while others (30%) point out that this virtual world is a branch of Facebook (30%), attributing its creation to the owner of this company. Thus, video games are the most well-known, widespread, and currently adopted form of the metaverse. However, it cannot be guaranteed that 100% of young people know what the metaverse is. This situation suggests that it be considered by the advertising industry for an efficient design of its communication strategies.

In this sense, Facebook is the most cited company as an example of a company that is doing something in the metaverse for both the Spanish and Mexican populations. Therefore, the Facebook platform regains visibility and prominence among the youngest who no longer used it as much and had even forgotten it somewhat, so with the metaverse a new positioning opportunity arises. However, when it comes to advergaming, there are no matches.

In the content analysis, it is found that the playful aspect and the dynamics of having an immersive game are especially interesting elements for brands because the metaverse allows the creation of virtual worlds dedicated to their image and following their philosophy; visitors immerse themselves in the universe of the brand and have the opportunity to have a unique experience thanks to the individualization process that the avatars have. It should be emphasized that one success of the metaverse is the personalization it provides to the user because, in this way, young people acquire a digital identity, becoming the true protagonists of the stories of the different video games and generating a true intrinsic value for the brand since the skins can be functional products for the characterization of the avatars, as is the case of clothing, footwear, and accessories; in this way, the brand maintains a subtle presence in the digital narrative of the game. "The gamer always wants news and to have the latest exclusive skin and, thanks to this, the brand is sold a lot," said a 21-year-old male player from Spain.

For all that, some companies, especially in the fashion and technology sector, seek to have insertions within video games that are already successful among users and that are the best known, as is the case with Minecraft and Roblox.

The results of this research show that most of the metaverses created by brands within Roblox belong to the retail sector: textiles, beauty, and automotive. This fact points to the great investment made by these companies to be able to influence young people, their main and potential consumers. Young Spaniards name examples of advertisements that show products from technology and textile companies, while Mexican users mention brands from the food and leisure sector.

With the data extracted from the analysis, it can be affirmed that companies develop these techniques to impact and retain their target audience through entertainment and interaction; for example, Vans World is the video game that has received the highest number of total visits; more positive votes and, in turn, negative ones, it has a higher positivity percentage and number of favorites. It is only beaten by Hyundai Mobility Adventure in average playtime. Vans, for its part, reinforces with this type of action its position as a global icon and defender of youth culture, leading the combination of fashion and virtual sports, because even the entire aesthetic of the video game recalls the values of the brand, visually highlighting its product, just as it shares the interests of its consumers, as is the case with urban skating and the use of the skateboard. However, no current web experience allows for this type of interaction between brands and their audiences.

This situation could be an area of opportunity for the following creative developments of the brands; Likewise, they should consider that Roblox is a relatively new platform for users because the population between 18 and 28 years old prefers to play Minecraft and Fortnite. Another finding is that the brands chosen to build the object of study, despite having great media coverage, do not coincide with the most mentioned or remembered by users.

Regarding the effectiveness and acceptance of advertising in video games, it should be noted that there is a positive predisposition on the part of the population. They state that they do not remember examples of ads in video games and comment that they are not affected by advertising within video games. Moreover, they perceive advertising in video games as something interesting, intelligent, and useful, as Waiguny et al. (2014) and van Berlo et al. (2021) defended. The results of this research confirm their idea, since, in the case of Mexico, more than half of the respondents described advertising as interesting and does not bother them; while in Spain, 48% of the participants indicated that it seemed good to them. Added to this is the fact that they would like to be able to select the type of advertising and for brands to use their data to personalize ads according to their tastes and interests. For this reason, the statement by Evans et al., (2018), who state that players do not like advertising inserted in video games, is not shared.

Finally, it can be said that the young people of both countries do not dominate the definitions of metaverse and advergaming, because less than half of the total sample answered what the term advergaming means; therefore, 64% of Spaniards and 79% of Mexicans, respectively, do not know what advergaming is. However, in their leisure time, they consume video games and, with them, indirect advertising, which makes these advertising formulas tremendously effective, since they relate them to the dynamics of the game, without considering them invasive or annoying.

6. Conclusions

Videogames go from being a product for commercial purposes to being a cultural product generalized to the entire population; mainly the young. Thanks to this tool, non-intrusive advertising can be carried out and branding can be improved, especially among the audience under 30 years of age. It is important to highlight that there are no significant differences between gender and the degree of knowledge about the video game industry. Likewise, very similar percentages were found between both countries; so, it could be generalized by saying that the population of Spain and Mexico have the same knowledge about the metaverse and advergaming. The main difference lies in the type of brands that each population consumes and that possibly has to do with the context; however, in terms of interest in video games, the results are homogeneous.

Based on what has been observed, another factor that should be considered within an advergaming strategy is the presence on more channels, such as YouTube, or the collaboration with gamers or popular streamers, which increase the visibility of the brand and the game.

Additionally, the user experience enters a new stage, and the forms of interaction between brand-consumer change, because now the consumer has the option to personalize his experience through avatars. The brand is not just a product or service but gradually expands to be the sum of the touchpoints and interactions it has with each customer. This fact drives brands to integrate experiences related to their own products into an ecosystem that is enabled by the metaverse. The bidirectional, interactive, and dynamic relationship between brands and consumers demands alignment in the digital and physical worlds, requiring professionals to know the peculiarities of the market and perfectly understand the new interests of their audience.

According to this, Vans World offers a better brand experience in that its content is deeply linked to the history, values, and catalog of Vans and the skater world. Nikeland or Hyundai's Mobility Adventure, on the other hand, present a series of mini-games that are not related to its productive activity, since in the case of Nike it could have been linked to the sports it sponsors and not to popular games. This aspect is important and brands should take it into account when it comes to achieving a perfect alignment with what they say and do.

For all these reasons, it can be concluded that the metaverse is a virtual space that combines physical reality with virtual reality, which is becoming a very influential platform in different fields by modifying patterns of social interaction, nurturing cultural attributes, and participating in economic exchange. Some predict that it is the future of immersive digital experiences, so it will play a key role in shaping its own ecosystem, ensuring synchronization between channels, and serving as a platform for hybrid experiences. For brands and products, changes in consumer behavior and growing interest in the metaverse create opportunities for companies to enter the virtual world of marketing, transform themselves, and strengthen their brand presence through strategies that are friendlier and warmer with users. In short, offering a greater number of co-creation spaces between companies and users.

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