

Persuasive Communication in Video Games and Digital Recreation: New Consumption Patterns Among Youth

COMUNICACIÓN PERSUASIVA EN VIDEOJUEGOS Y OCIO DIGITAL:
GENERACIONES JÓVENES ANTE NUEVOS MODELOS DE CONSUMO

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Abstract: Persuasive communication in video games and digital leisure has become increasingly prominent with the consolidation of models such as games as a service and free-to-play environments. Drawing on recent literature, this article addresses the following key dimensions of the issue: the presence of persuasive architecture and dark patterns in video game design; the commercial integration of brands and advertising formats into the gaming experience; and use of persuasion both for education as well as ideological influence. Based on this approach, the authors contend that video games are communicative, social, and financial ecosystems with a significant impact on young people, whose perception of the boundaries between play, consumption, and monetary transaction has become blurred. Finally, the article highlights the need to enhance media literacy, along with regulatory frameworks that are adapted to contemporary digital leisure.

Keywords: Video Games; Advergaming; Dark Patterns; Youth; Persuasive Communication.

Resumen: La comunicación persuasiva en videojuegos y ocio digital ha adquirido una creciente relevancia con la consolidación de modelos como los *games as a service* y los entornos *free-to-play*. A partir de la literatura reciente, este artículo aborda tres dimensiones principales: las arquitecturas persuasivas y los patrones oscuros presentes en el diseño del videojuego, la integración comercial de marcas y formatos publicitarios dentro de la experiencia lúdica y los usos pedagógicos e ideológicos de la persuasión. Este enfoque permite entender el videojuego como un ecosistema comunicativo, social y económico especialmente significativo entre las generaciones jóvenes, en el que se difuminan las fronteras entre juego, consumo y transacción. Finalmente, se subraya la necesidad de avanzar en alfabetización mediática y marcos regulatorios adaptados al ocio digital contemporáneo.

Palabras clave: videojuegos; *advergaming*; patrones oscuros; juventud; comunicación persuasiva.



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1. Introduction

Far from being an isolated activity, digital entertainment has now become the backbone of socialisation and cultural exchange among young people. By integrating the use of smart devices, social media, and video games into their daily lives, the leisure patterns of youth have been reshaped, which has led to a new audiovisual hegemony (Calderón Gómez and Gómez Miguel, 2022). The extent of this phenomenon is evident in consumption, which shows that participation in video games is becoming an increasingly common habit. In Europe, 43.6% of young people aged 14 to 25 play video games weekly (Ministry of Culture, 2025), while in the United States, 41% of adolescents aged 13 to 17 do so daily (Gottfried and Sidoti, 2024). Both reports indicate that young people are more likely to play online, which suggests that video games have evolved from a cultural product intended for individual enjoyment into a communicative, social, and economic ecosystem in itself.

The video game industry has undergone significant economic growth, transitioning from a niche market with an estimated revenue of \$91 billion in 2015 (Newzoo, 2016) to a global market valued at \$189 billion today (Newzoo, 2025). This growth has been largely driven by the dominance of the mobile phone segment, which in 2025 contributed \$103 billion to the industry's total revenue through the implementation of highly effective strategies that reflect the new dynamics of contemporary digital consumption.

A key factor in this financial expansion is the business model known as Games as a Service (GaaS), whose architecture prioritises recurring revenue streams over the traditional one-time transaction model. According to Lehtonen *et al.* (2022), GaaS makes it possible to significantly extend the business lifespan of games through a continuous flow of content updates and the integration of sophisticated mechanisms for generating recurring revenue, thereby ensuring the long-term profitability and viability of a particular game.

Given this premise, the GaaS strategy implements persuasive communicative strategies, which are defined as the intentional effort to shape or reinforce responses without resorting to coercion (Stiff and Mongeau, 2016). The ultimate purpose is to optimise user retention and ensure their long-term engagement with the platform's ecosystem. However, this ability to exert influence can lead to what Zagal *et al.* (2013) refer to as *dark patterns* or designs intentionally aimed at creating adverse experiences that conflict with users' interests. As the system often operates without fully informed consent, they prioritise the interests of the game developers, which are typically financial or user retention, at the expense of the players' own interests.

Along with these internal design trends, the exponential growth of the video game market has made it a strategic priority among external stakeholders. Given the context, brands also use persuasive communication with the aim of making an effective impact on young audiences (Piccioni, 2023). However, advertising goes beyond simply mentioning a product by making it blend in with the content, thereby abandoning its traditional intrusive nature and integrating its message in a practical way through a playful experience. The final result of this approach is the rise of specific forms of advertising such as *advergaming*, product placement, and programmatic advert insertion using dynamic creative assets (Bonales-Daimiel and Gutiérrez-Manjón, 2026).

The versatile nature of persuasive communication in a recreational environment allows it to transcend commercial objectives, reaching into the domains of education and ideology. On the one hand, this capability for educational influence is evident in the so-called *serious games*, where persuasive designs are used to promote learning and behavioural change, which helps players acquire skills through reinforcement techniques (Gómez-García, 2014). On the other hand, video games can also be exploited as an instrument of political propaganda, where persuasion is camouflaged in order to influence the user's perception or reinforce ideological bias in a clandestine manner (De la Cruz *et al.*, 2025). This dichotomy highlights the fact that video games are not an ethically neutral space, but rather an established medium of influence in which persuasive communication plays a key role.

2. Persuasive Architecture and Dark Patterns in Video Games

Games as a Service, or GaaS, is not just an economic model, but a communicative strategy as well. Its logic requires building expectations: the next season, a weekend event, a special collaboration, or an exclusive *skin* (Dubois and Weststar, 2022). Video games have embraced the series format and the episode culture: they draw users in, catch their attention, and organise their schedule around the gameplay loop. In this regard, when leisure becomes part of a person's schedule, persuasion takes on a timeframe quality. The user learns that missing an event means losing a reward, a position in the rankings, or an opportunity for social visibility. In this context, the decision to play is not only driven by the desire to enjoy the game but is also influenced by peer pressure and the structural constraints of scarcity and limited resources (Mejías *et al.*, 2024).



The most common persuasive tactics in today's video games operate on multiple levels and are part of commercial and advertising strategies integrated into the design of the gaming experience, which are especially prevalent on smartphones (Arjona and Muñoz, 2020). At the surface level, explicit messages appear, such as offers, bundles, battle passes, and seasonal announcements. At the intermediate level, there are displays of interface cues such as notifications, reminders, progress indicators, bars that are yet to be completed, and upcoming rewards. At the deep level are behavioural loops, which include the design of daily challenges, intermittent rewards, anticipation of desired loot, and the conversion of effort into points —and points into status— in the gaming community.

For young people, the effectiveness of this kind of architecture is enhanced due to the highly social nature of the digital leisure experience. Online video games, whether competitive, cooperative, or hybrid, are organised around teams, groups of friends, and communities.

Participation is not seen as merely individual entertainment, but as a sense of belonging to a social group with shared interests (Carrillo Vera, 2015). Playing video games involves socialising with others, and that interaction creates subtle obligations such as logging in so as not to disappoint the group, making progress in order to avoid impeding the advancement of others, and taking part in an event to avoid being left out of the conversation. Therefore, persuasion is no longer merely technological, as it has a social dimension as well.

Consequently, persuasive communication has merged with experience regarding design and the social fabric, creating environments in which ongoing engagement is standard practice. At this crossroads, tension and risks have emerged, which are widely documented, including fatigue, frustration, impulsive spending, the normalisation of micropayments, and family or school conflicts arising from the demands that gaming places on players' time and attention (Kamamura *et al.*, 2022; Han, 2025). However, in this scenario there is a phenomenon at work that is even more profound: the restructuring of social life as an ongoing engagement with the realm of digital recreation.

Therefore, the problem is not confined to the industry's legitimate interest in maximising revenue through micropayments or recurring monetisation strategies. In fact, the threat arises when these practices are incorporated into highly sophisticated persuasive architecture that triggers psychological responses capable of fostering problematic behaviour, especially among young people, as their emotional and cognitive self-regulation is still not fully devel-

oped (Labrador *et al.*, 2023). In this situation, spending ceases to be a one-off, conscious, deliberate decision, and instead becomes part of a cycle of anticipation, reinforcement, and repetition that often becomes compulsive (Zendle and Cairns, 2018).

The academic literature has noted that certain features of contemporary video games such as intermittent rewards, random item acquisitions, artificial scarcity, immediate feedback, and audiovisual celebrations of success have structural similarities with the psychological inner-working of gambling (Arnedo-Moreno *et al.*, 2026). Moreover, these dynamics not only encourage continued engagement but can also modify the perception of risk, normalize repeated spending of small amounts, and foment a transactional relationship with money in the digital entertainment sector.

These practices are often implemented through the so-called *dark patterns*, which are strategies designed to subtly influence user behaviour by exploiting cognitive and emotional bias (Gutiérrez-Manjón *et al.*, 2026). This refers to audiovisual content and systems that operate according to algorithmic logic designed to entice, intensify engagement, and reshape decision-making, the aim of which is to persuade users to carry out actions that may run counter to their own interests in the medium and long term (Zagal *et al.*, 2013).

For young players, the combination of these strategies with the social dynamics of belonging and validation heightens their impact (Bernaldo-de-Quirós *et al.*, 2021). The pressure to avoid exclusion, maintain social standing within a group, and preserve a recognisable digital identity can act as a catalyst for behaviour that mirrors the processes through which individuals are drawn to gambling (Spicer *et al.*, 2022). In essence, the heart of the problem lies in this shift from recreational consumption to behavioural reinforcement, which is the main challenge for researchers, regulators, and the responsible design of digital entertainment.

3. Advertising, Branding, and Commercial Integration

Advertising has historically played a persuasive role in raising brand awareness, building symbolic value, and influencing consumer attitudes and behaviour. However, in today's digital landscape, this role is no longer achieved through external formats, nor those which are clearly differentiated from the content, such as isolated and intrusive adverts. Instead, modern advertisers use sophisticated approaches integrated into media experiences, spaces for leisure, participation, and interaction, and even in the very logic of the inter-

face (Scolari, 2018; De la Hera, 2019). This convergence of advertising and entertainment is known as *advertainment*, which refers to content designed to attract users, engage them emotionally, and foster brand loyalty (Martínez Sáez, 2003; Ramos, 2006; De Aguilera-Moyano *et al.*, 2015).

Given the context of increasing hybridisation of leisure, interaction, and commercial communication, video games have taken centre stage. Their ability to provide extended, participatory, and immersive experiences has made them a valuable tool for inserting persuasive messages aimed specifically at young audiences (Feijoo *et al.*, 2022). Therefore, the literature on video game advertising has established this field as a key area in the persuasive communication domain. Previous studies have focused both on classifying the various types of in-game advertising and their effects on users. Regarding effects, these include the impact on players' behaviour (Molesworth, 2006), the acceptance or rejection of these practices by users (Evans *et al.*, 2018; van Berlo *et al.*, 2021), and the capability of such adverts to engender advertising recall in the participants (Nelson, 2002; Grigorovici and Constantin, 2004; Schneider and Cornwell, 2005; Yang *et al.*, 2006).

Regarding types of brand presence, these can be classified according to their degree of integration and their position within the gaming experience, in a process that has moved toward increasingly integrated approaches. Thus, strictly speaking, the term *advergame* refers to ad hoc video games, usually free and playable, either designed specifically to meet a company's communication needs, or developed by making use of existing game environments (Redondo, 2012; Cañete Sanz and De la Hera, 2023). On the other hand, *in-game* advertising, or IGA, refers to the insertion of brands or commercial messages into existing video games using a logic similar to product placement, yet adapted to the specific features of the interactive environment (Selva-Ruiz, 2009; Waiguny *et al.*, 2014). Added to this is *around-game* advertising (AGA), which appears in areas surrounding the gameplay and is especially widespread in smartphone video games, where banners, pop-ups, videos and other in-app formats are integrated into the free-to-play and monetisation models of numerous gaming apps (Tapia-Frade *et al.*, 2022; João and Las Casas, 2023; López and Arbaiza, 2023). Although these methods differ regarding their origin, format, and the extent to which they are integrated into the gaming experience, they all share a fundamental feature: the incorporation of commercial content into recreational settings characterised by sustained attention, high user engagement, and particularly intense and continuous use.

Along these lines, Rodríguez García and Baños González (2009) distinguish between static, interactive, and immersive advertising based on the degree of interaction between the player and these formats. While static advertising uses fixed placement within the gaming environment, interactive advertising requires some type of response or action from the player, and immersive advertising is even more integrated, as it interweaves the commercial aspect with the gaming experience itself. This development reflects a shift toward advertising formats that are increasingly difficult to distinguish from leisure activities, a trend that has intensified with the expansion of the metaverse and other immersive environments.

More recently, studies on advertising in video games has focused on the models known as GaaS and *free-to-play* (F2P). In these settings, advertising is intertwined with other monetisation strategies such as in-game purchases, subscriptions, and season passes. Thus, the gaming experience also operates as a space for display, desire, and transaction. In this context, *phygital* strategies are especially important, as they seamlessly combine digital and physical features to enhance the consumer experience. Beyond conventional brand placement, joint ventures between companies and video game designers show how *skins*, thematic events, virtual objects, and immersive experiences can act as extensions of the brand universe and be applied to products, shops, and in-person experiences. Thus, the purchase is integrated into a playful and emotional narrative that can lower the inhibition to make a monetary payment, thereby helping to normalize spending in the gaming experience (Zarantonello and Schmitt, 2010; Calderón Gómez and Gómez Miguel, 2022; Lawry, 2022). In this way, video games no longer operate merely as an advertising medium, and instead become a hybrid space for symbolic interaction in which identity, consumption, and brand experience converge, thereby encouraging purchase decisions and the habit of recurrent spending (Johnson and Barlow, 2021; Jordan and Richterich, 2022; Bonfanti *et al.*, 2023; Newzoo, 2025).

As a whole, the literature suggests an ambivalent dynamic in this scenario: on the one hand, integrating adverts into video games can reinforce the persuasive effectiveness of the message by linking it to experiences of enjoyment, engagement, and sustained attention (Waguny *et al.*, 2014; van Berlo *et al.*, 2021); on the other hand, this strategy can make it difficult to identify the purpose of the advertising when its presence blends seamlessly and indistinctively into the gaming experience (Campbell and Kirmani, 2000; Evans *et al.*, 2018; Skiba *et al.*, 2019).

4. Using Video Games for Educational Purposes and to Influence Ideology

Together with research focusing on monetisation and advertising, a third line of investigation has analysed video games as a vehicle for social, educational, and political persuasion. This viewpoint is based on the premise that the medium's potential to persuade is not limited to its commercial aspect, as it can also be used for purposes related to information, education, culture, and ideology (Bogost, 2007). Due to its nature as an open and flexible system, video games can be used to explore real-world scenarios, help users develop skills at the individual level, and assist players in understanding and interpreting societal realities. Literature addressing these features defines persuasion as the ability of video games to encourage reflection, comprehension, and changes in attitude. As this point of view is positivist, it reflects a shift in the preconceived notion that video games cause or trigger aggressive and criminal behaviour in children, indicating a change in public perception, with video games now viewed more positively than in previous years (Núñez-Barriopedro *et al.*, 2020).

Various studies have examined the benefits of using video games to acquire and improve specific skills, both through mass-market games designed for recreational purposes and adapted for educational settings, and those created ad hoc for more serious aims (McGonigal, 2011; Granic *et al.*, 2014). Unlike other forms of persuasion, which are more strongly associated with attracting attention or driving consumption, the focus here is on the ability of games to foster immersive learning experiences, simulate complex scenarios, promote empathy, and facilitate understanding of social issues.

Generally speaking, video games have inherent features that can promote the development of certain skills among players. For example, certain genres can enhance users' competence regarding spatial awareness, in addition to improving mood and alleviating anxiety (Granic *et al.*, 2014). Studies that focus on these issues not only explore the impact of gaming on children, but on adults as well. Among the latter, there are benefits in terms of mental and physical health, as improvements have been revealed in physical aspects such as strength and mobility, while psychological enhancement has been found regarding reaction time and cognitive processing speed (Xu *et al.*, 2020).

Furthermore, technological advances and their application to the field of video gaming have broadened the ways in which this medium can persuade and influence players. As such, the persuasive capabilities of video games are

not limited to the internal dynamics of the game, but also depend on the devices, interfaces, and technological conditions that shape the immersive digital experience. This is clearly evident in the use of virtual reality for developing specific skills and prosocial behaviour (Breves, 2018; Sousa, 2024; Cañete Sanz *et al.*, 2025), as well as augmented reality aimed at improving social interaction in children with autism spectrum disorder (Chung *et al.*, 2015).

By taking a more applied approach, research on game-based learning has examined the benefits of gaming as a means of facilitating knowledge acquisition in specific disciplines, such as software engineering (Garcia *et al.*, 2020), geography, politics, and urban planning, through the use of mass-market games (Bereitschaft, 2023), and in the healthcare sector through virtual simulations (Del Blanco *et al.*, 2017).

In addition to its use in specific contexts, video games have also been used to develop transversal skills, also known as *soft skills*.

These competencies are not aimed solely at recalling or understanding intricate concepts, but also at developing skills related to critical thinking, creativity, and sound judgement in social learning contexts (Anderson and Krathwohl, 2001). From this viewpoint, video games can be used to persuade and inform for educational purposes, while pupils see them as an entertaining pastime that motivates them to learn (Gómez-García *et al.*, 2016).

The mere act of acquiring such competence clearly shows that the persuasive potential of video games is also linked to cognitive, behavioural, and emotional development. In this regard, benefits have been discovered in relation to problem-solving skills (Connolly *et al.*, 2012; Núñez-Barriopedro *et al.*, 2020), resilience, adaptability, and decision-making competence (Pusey *et al.*, 2022; Bartolomé *et al.*, 2025), in addition to enhanced self-esteem and reduced fear of failure (Xu *et al.*, 2020). Thus, video games not only contribute to learning in specific subjects, but they may also influence more complex personal and social skills.

At this point, persuasion and the narratives associated with certain ideological movements become relevant factors in examining the video game ecosystem. The discourse that arises in these environments enables the transfer of political ideologies and the construction of interpretations of contemporary political systems (Gómez-García *et al.*, 2022). One example is *Newsgames*, which provides information presented in playful formats. This is similar to *serious games*, both of which offer opportunities to create narratives focused on social issues. Through an immersive experience of sensitive circumstances, these complex and interactive narratives are able to foster empathy, improve

understanding of phenomena such as hate speech, and trigger a discerning response among players (Gómez-García *et al.*, 2021). In short, video games are capable of persuading audiences and influencing their interpretation of genuine political situations, whether through the deliberate and explicit design of *serious games*, or via the depiction and narratives found in mass-market video games. At the same time, they can also foster positive social attitudes, promote tolerance, and reduce prejudice toward specific social groups (Breves, 2018; Lopez Naranjo *et al.*, 2025).

However, these platforms can also be used to spread hate speech, both within and surrounding the game, as they are sometimes used by certain groups as a megaphone to influence communities and disseminate extremist messages. In this regard, the sense of belonging or identification with a group is closely linked to video game culture, yet the dark side of this affinity is that some gaming communities act as catalysts for radical behaviour (Kowert *et al.*, 2022; Miller-Idriss, 2025). Moreover, the prevalence of such discourse in the gaming ecosystem is exacerbated by a shortfall of effective moderating strategies capable of addressing these kinds of practices, which may reinforce radical ideologies associated with racism, misogyny, and ethnic hatred (Newhouse and Kowert, 2024). The impact of this type of diatribe on audiences comprised of adolescents and children is of growing concern, especially in a medium defined by its immersive and persuasive potential (Lopez Naranjo *et al.*, 2025).

This impact also requires that attention must be paid to the social portrayals found in video games. Like other cultural formats, these depictions are able to convey specific perspectives and narratives about reality, which range from the omission of social inequality or lack of representation (Hilu, 2026), to the consolidation of neoliberal and technocratic ideologies (Fraile-Jurado and Llovet-Ferrer, 2026). Even when addressing sensitive issues like gender-based violence, these narratives can perpetuate stereotypes or minimize the problem by delimiting the issue to very specific settings (Manzano-Zambruno and Paredes-Otero, 2021).

In short, as spaces for education and socialisation, the potential of video games is not limited the persuasive power of *serious games*, which are designed for purposes related to education, information consumption, and raising awareness. In fact, in addition to helping players acquire specific abilities, the world of video games can also assist users in developing positive social behaviour and critical thinking skills. However, in spite of its benefits, the persuasive power inherent to these games also enables the proliferation of extremist and hateful discourse, whose creators use these channels as a platform

from which to influence various audiences. For this reason, the impact of these dynamics on the most vulnerable groups in society is an issue that requires immediate attention.

5. Conclusions

The literature review conducted for this study clearly shows that video games are now firmly established as a vital tool for analysing contemporary persuasive communication, especially among younger generations.

Far from being a mere source of entertainment, video games have become ecosystems that are communicative, social, and economic, in which leisure and business interests converge. From this standpoint, the literature points to a fundamental transformation: persuasion is no longer conveyed solely through explicit messages or clearly defined advertising formats; instead, it uses more complex structures in which design, interface, reward, timing, and consumption are increasingly intertwined.

Given the context, one of the key changes observed is the growing difficulty in drawing a clear distinction between leisure, consumption, and persuasion. In fact, a hybrid environment has been created involving game dynamics, reward systems, timelines of programmed events, micropayments, brand partnerships, and *phygital* strategies. Moreover, in this setting, commercial messages are integrated into the gaming experience in a fluid and persistent manner, often blurring the boundary between entertainment content and advertising practices. Furthermore, although this enhances the persuasive power of the video game ecosystem, it becomes increasingly difficult to identify its commercial intent and the underlying economic interests.

This article also highlights the fact that these dynamics cannot be viewed solely from a traditional advertising perspective. In today's video games, especially among young audiences, persuasion is interconnected with feelings of belonging, recognition, and social validation. The pressure to be included in an event, to maintain a prominent digital presence, or to uphold one's status within the group exacerbates the impact of retention and spending strategies. Therefore, the issue is no longer limited to the presence of advertising or the visibility of brands; instead, the concern is focused on the promotion of consumption patterns based on ongoing engagement, which are capable of normalizing recurrent spending habits and even encouraging detrimental behaviour.

From this viewpoint, the main challenge is not to question, in abstract terms, the legitimacy of monetisation and commercial communication in the

video game sector, but rather to critically examine the conditions under which these practices are implemented when aimed at young audiences. Moreover, this requires a shift toward analytical frameworks that integrate the communicative, economic, technological, and social dimensions of the medium. This also requires assessing the adequacy of current regulatory frameworks for protecting children and adolescents in environments where the line between gaming, advertising, and transactions is becoming increasingly blurred.

Therefore, an understanding of the persuasive potential of video games and their impact on young audiences should not be limited to developing strategies aimed exclusively at commercial communication. In fact, other types of persuasion also have a place in this field, ranging from acquiring knowledge to the dissemination of specific rhetoric and ideologies. Regarding the latter, in order to understand the persuasive power of video games, analyses of their content must be carried out, which need to be thorough and up to date.

At the same time, the academic world must continue to explore these contemporary forms of persuasion in greater depth. Special emphasis should also be placed on encouraging empirical research aimed at exploring the following aspects: the way in which younger generations identify, comprehend, and negotiate these persuasive practices in their everyday lives; how these practices influence their perception of spending, risk, and reward; and how the factors of online socialisation, algorithmic personalisation, and the blurring of boundaries between digital and offline consumption come into play. Likewise, there is also a need for more research into video gaming used for educational and ideological purposes. In fact, regarding both these aspects, this study has revealed that persuasion in the gaming environment is not limited to the commercial realm, as it also plays a role in the transmission of values, worldviews, and personal behaviour.

Ultimately, the analysis of persuasive communication embedded in video games and digital entertainment highlights an important issue, which is its current impact on the cultural practices and socialisation of young people, in addition to the growing economic influence of the video game industry in the contemporary digital ecosystem. Nowadays, an understanding of how models of consumption, influence, and participation are shaped in these environments is crucial for achieving the following objectives: advancing academic knowledge; encouraging more responsible video game design; developing strategies for strengthening media and advertising literacy tailored to the current setting; and finally, initiating debates on regulatory options related to this

issue. Regarding the latter point, and as a final thought, any future regulations should be capable of addressing the challenges of an ecosystem in which playing, consuming, and being subject to persuasion are increasingly intertwined in the same experience.

Ethics and Transparency

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Conflict of Interest

The authors declare that there is no conflict of interest in any part of this research.

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Author Contributions

Contribution	Author 1	Author 2	Author 3	Author 4
Conceptualisation	X	X	X	
Content curation	X			
Formal analysis			X	
Funding acquisition	X	X		
Research	X	X		
Methodology		X		
Project administration	X	X	X	
Resources			X	
Software			X	
Supervision	X			
Validation			X	
Visualisation	X			
Writing: original draft	X	X	X	
Writing: review and editing	X		X	

Data Availability Statement

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References

- ANDERSON, L. W. & KRATHWOHL, D. R. (Eds.). (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Longman.
- ARJONA, J. B. & MUÑOZ, V. M. (2020). The consolidation of game-as-a-service model in the video game industry. Microtransactions, loot boxes and legal issues. *Revista Inclusiones*, 7, 229-244.
<http://hdl.handle.net/10481/64281>
- ARNEDO-MORENO, J., PONS LÓPEZ, J. J., RODRÍGUEZ-RIVERA, P., BAENA, A. & ARANDA, D. (2026). The impact of video game use of dark patterns and random reward mechanisms on the youth: A systematic literature review. *Entertainment Computing*, 57.
<https://doi.org/10.1016/j.entcom.2026.101122>
- BARTOLOMÉ, J., DEL RÍO, I., MARTÍNEZ, A., ARANGUREN, A., LAÑA, I. & ALLOZA, S. (2025). Game On: Exploring the Potential for Soft Skill Development Through Video Games. *Information*, 16(10), 918.
<https://doi.org/10.3390/info16100918>
- BEREITSCHAFT, B. (2023). Commercial city building games as pedagogical tools: What have we learned? *Journal of Geography in Higher Education*, 47(2), 161-187. <https://doi.org/10.1080/03098265.2021.2007524>
- BERNALDO-DE-QUIRÓS, M., SÁNCHEZ-IGLESIAS, I., GONZÁLEZ-ALVAREZ, M., LABRADOR, F. J., ESTUPIÑÁ, F. J., FERNÁNDEZ-ARIAS, I. & LABRADOR, M. (2021). Factors Associated with the Problematic Use of Video Games in Adolescents and Young People. *International Journal of Mental Health and Addiction*, 20, 2706-2717. <https://doi.org/10.1007/s11469-021-00543-w>
- BOGOST, I. (2007). *Persuasive games: The expressive power of videogames*. The MIT Press.
- BONALES-DAIMIEL, G. & GUTIÉRREZ-MANJÓN, S. (2026). Integrated advertising in video game: Persuasive communication strategies and perception in Generation Z. *Street Art & Urban Creativity*, 11(8), 101-118.
<https://doi.org/10.62161/sauc.v11.6074>
- BONFANTI, A., VIGOLO, V., VANNUCCI, V. & BRUNETTI, F. (2023). Creating memorable shopping experiences to meet phygital customers' needs: evidence from sporting goods stores. *International Journal of Retail & Distribution Management*, 51(13), 81-100.
<https://doi.org/10.1108/IJRDM-12-2021-0588>

- BREVES, P. (2018). Reducing Outgroup Bias through Intergroup Contact with Non-Playable Video Game Characters in VR. *PRESENCE: Virtual and Augmented Reality*, 27(3), 257-273.
https://doi.org/10.1162/pres_a_00330
- CALDERÓN GÓMEZ, D. & GÓMEZ MIGUEL, A. (2022). *Consumir, crear, jugar: panorámica del ocio digital de la juventud*. Centro Reina Sofía sobre Adolescencia y Juventud. Fundación FAD Juventud.
<https://doi.org/10.5281/zenodo.6338126>
- CAMPBELL, M. C. & KIRMANI, A. (2000). Consumers' use of persuasion knowledge: The effects of accessibility and cognitive capacity on perceptions of an influence agent. *Journal of consumer research*, 27(1), 69-83.
- CAÑETE SANZ, L. & DE LA HERA, T. (2023). What we do not know about advergames: a literature review. *Frontiers in Communication*, 8.
<https://doi.org/10.3389/fcomm.2023.1155899>
- CAÑETE SANZ, L., MARTENS, S. & DE LA HERA, T. (2025). The Case of Cities: Sky-lines Versions—Affordances in Urban Planning Education. *Media and Communication*, 13, 8747.
- CARRILLO VERA, J. A. (2015). Social dimensions of the online videogames: from gamer community to e-sports. *index.comunicación*, 5(1), 39-51.
<https://bit.ly/4toOM9Z>
- CHUNG, P. J., VANDERBILT, D. L. & SOARES, N. S. (2015). Social Behaviors and Active Videogame Play in Children with Autism Spectrum Disorder. *Games for Health Journal*, 4(3), 225-234. <https://doi.org/10.1089/g4h.2014.0125>
- CONNOLLY, T. M., BOYLE, E. A., MACARTHUR, E., HAINEY, T. & BOYLE, J. M. (2012). A systematic literature review of empirical evidence on computer games and serious games. *Computers & Education*, 59(2), 661-686.
<https://doi.org/10.1016/j.compedu.2012.03.004>
- DE-AGUILERA-MOYANO, J., BAÑOS-GONZÁLEZ, M. & RAMÍREZ-PERDIGUERO, J. (2015). Branded Entertainment: Entertainment content as marketing communication tool. A study of its current situation in Spain. *Revista Latina de Comunicación Social*, (70), 519-538.
<https://doi.org/10.4185/RLCS-2015-1057>
- DE LA CRUZ, J. S., GÓMEZ, S. C. & LACASA, P. (2025). Contemporary political discourse in digital games: A systematic approach. *Media and Communication*, 13. <https://doi.org/10.17645/mac.i460>
- DE LA HERA, T. (2019). *Digital gaming and the advertising landscape*. Amsterdam University Press. <https://doi.org/10.5117/9789462987159>
- DEL BLANCO, Á., TORRENTE, J., FERNÁNDEZ-MANJÓN, B., RUIZ, P. & GINER, M. (2017). Using a videogame to facilitate nursing and medical students' first visit to

- the operating theatre. A randomized controlled trial. *Nurse Education Today*, 55, 45-53. <https://doi.org/10.1016/j.nedt.2017.04.026>
- DUBOIS, L. E. & WESTSTAR, J. (2022). Games-as-a-service: Conflicted identities on the new front-line of video game development. *New Media and Society*, 24(10), 2332-2353. <https://doi.org/10.1177/1461444821995815>
- EVANS, N. J., WOJDYNSKI, B. W. & HOY, M. G. (2018). How sponsorship transparency mitigates negative effects of advertising recognition. *International Journal of Advertising*, 38(3), 364-382. <https://doi.org/10.1080/02650487.2018.1474998>
- FEIJOO, B., SÁDABA, C. & BLANCO, M. (2022). Ads in videogame apps: Analysis of the advertising children are exposed to when they play games on their phones. *Anàlisi*, (Special issue), 95-112. <http://doi.org/10.5565/rev/analisi.3497>
- FRAILE-JURADO, P. & LLOVET-FERRER, M. (2026). Representing City Development: A Critical Geographic Analysis of Urban Simulation Games. *Simulation & Gaming*, (0), 1-22. <https://doi.org/10.1177/10468781261442622>
- GARCIA, I., PACHECO, C., MÉNDEZ, F. & CALVO-MANZANO, J. A. (2020). The effects of game-based learning in the acquisition of “soft skills” on undergraduate software engineering courses: A systematic literature review. *Computer Applications in Engineering Education*, 28(5), 1327-1354. <https://doi.org/10.1002/cae.22304>
- GÓMEZ-GARCÍA, S. (2014). *¿Pueden los videojuegos cambiar el mundo? Una introducción a los serious games*. UNIR Editorial.
- GÓMEZ-GARCÍA, S., CHICHARRO-MERAYO, M., VICENT-IBÁÑEZ, M. & DURÁNTEZ-STOLLE, P. (2022). The politics that we play. Culture, videogames and political ludofiction on steam. *index.comunicación*, 12(2), 277-303. <https://doi.org/10.33732/ixc/12/02Lapoli>
- GÓMEZ-GARCÍA, S., PAZ-REBOLLO, M.-A. & CABEZA-SAN-DEOGRACIAS, J. (2021). Newsgames against hate speech in the refugee crisis. *Comunicar*, 29(67), 123-133. <https://doi.org/10.3916/C67-2021-10>
- GÓMEZ-GARCÍA, S., PLANELL DE LA MAZA, A. J. & CHICHARRO-MERAYO, M. (2016). Do students want to learn using video games? Users’ opinions about the educational function of video games. *Educación*, 53(1), 49-66. <https://doi.org/10.5565/rev/educar.848>
- GOTTFRIED, J. & SIDOTI, O. (2024, 9 of May). *Teens and video games today*. Pew Research Center. <https://bit.ly/4vKZyJe>
- GRANIC, I., LOBEL, A. & ENGELS, R. C. M. E. (2014). The benefits of playing video games. *American Psychologist*, 69(1), 66-78. <https://doi.org/10.1037/a0034857>

- GRIGOROVICI, D. M. & CONSTANTIN, C. D. (2004). Experiencing Interactive Advertising Beyond Rich Media: Impacts of Ad Type and Presence on Brand Effectiveness in 3D Gaming Immersive Virtual Environments. *Journal of Interactive Advertising*, 5(1).
<https://doi.org/10.1080/15252019.2004.10722091>
- GUTIÉRREZ-MANJÓN, S., GÓMEZ-GARCÍA, S. & BONALES-DAIMIEL, G. (2026). Designing for monetization: A taxonomy of dark patterns in top-grossing GaaS video games. *Tripodos*, (59).
<https://doi.org/10.51698/tripodos.2026.59.05>
- HAN, J. W. (2025). Effects of Mobile Gacha Games on Gambling Behavior and Psychological Health. *arXiv*.
<https://doi.org/10.48550/arXiv.2504.00057>
- HILU, R. (2026). Making girls at home in games: Nancy Drew computer games and the racial politics of girls' game spaces. *Feminist Media Studies*, 1-18.
<https://doi.org/10.1080/14680777.2026.2637145>
- JOÃO, B. DO N. & LAS CASAS, A. L. (2023). Systematic mapping of in-game advertising & advergames. *Revista De Gestão E Secretariado*, 14(8).
<https://doi.org/10.7769/gesec.v14i8.2250>
- JOHNSON, M. & BARLOW, R. (2021). Defining the phygital marketing advantage. *J. Theor. Appl. Electron. Commer. Res.* 16, 2365-2385.
<https://doi.org/10.3390/jtaer16060130>
- JORDAN, T. & RICHTERICH, A. (2022). Researching the digital economy and the creative economy: Free gaming shards and commercialised making at the intersection of digitality and creativity. *European Journal of Cultural Studies*, 26(3), 354-370. <https://doi.org/10.1177/13675494221118390>
- KAMAMURA, T., KOYAMA, Y., MORI, T., MOTONISHI, T. & OGAWA, K. (2022). Loot box gambling and economic preferences: a survey analysis of Japanese adolescents and young adults. *Applied Economics*, 55(44), 5213-5229.
<https://doi.org/10.1080/00036846.2022.2138817>
- KOWERT, R., MARTEL, A. & SWANN, W. B. (2022). Not just a game: Identity fusion and extremism in gaming cultures. *Frontiers in Communication*, 7, 1007128.
<https://doi.org/10.3389/fcomm.2022.1007128>
- LABRADOR, M., SÁNCHEZ-IGLESIAS, I., BERNALDO-DE-QUIRÓS, M., ESTUPIÑÁ, F. J., FERNÁNDEZ-ARIAS, I., VALLEJO-ACHÓN, M. & LABRADOR, F. J. (2023). Video Game Playing and Internet Gaming Disorder: A Profile of Young Adolescents. *International Journal of Environmental Research and Public Health*, 20(24), 1-13. <https://doi.org/10.3390/ijerph20247155>
- LAWRY, C. A. (2022). Blurring luxury: the mediating role of self-gifting in consumer acceptance of phygital shopping experiences. *International Journal*

- of Advertising*, 41(4), 796-822.
<https://doi.org/10.1080/02650487.2021.1903742>
- LEHTONEN, M. J., VESA, M. & HARVIAINEN, J. T. (2022). Games-as-a-Disservice: Emergent value co-destruction in platform business models. *Journal of Business Research*, 141, 564-574.
<https://doi.org/10.1016/j.jbusres.2021.11.055>
- LÓPEZ, A. & ARBAIZA, F. (2023). Influence of Fortnite's In-Game Advertising on User Experience: A Study of Gamers from Lima, Peru. In J. V. Carvalho, A. Abreu, P. Liberato & A. Peña (Eds.), *Advances in Tourism, Technology and Systems. Smart Innovation, Systems and Technologies* (pp. 239-249). Springer. https://doi.org/10.1007/978-981-99-0337-5_21
- LOPEZ NARANJO, F., MALDONADO, M. A., CUADRADO, E. & MOYANO, M. (2025). Video Games Interventions to Reduce Radicalization and Violent Extremism in Young People: A Systematic Review. *Games and Culture*, 20(6), 787-812.
<https://doi.org/10.1177/15554120231223067>
- MANZANO-ZAMBRUNO, L. & PAREDES-OTERO, G. (2021). Serious games and gender-based violence. A ludic-narrative analysis of 'The Kite' trilogy. *index.comunicación*, 11(2), 81-107.
<https://doi.org/10.33732/ixc/11/02Seriou>
- MARTÍNEZ SÁEZ, J. (2003). Branded content o advertainment. ¿Un nuevo escenario para la publicidad audiovisual? In N. Mínguez Arranz & N. Villagra García (Eds.), *La comunicación. Nuevos discursos y perspectivas* (pp. 57-62). Edipo.
- MCGONIGAL, J. (2011). *Reality is broken: Why games make us better and how they can change the world*. Penguin Press.
- MEJÍAS, G., ROBERTS, M. & CUESTA, U. (2024). Visual identity and gambling in the Counter-Strike video game loot boxes ecosystem. *VISUAL REVIEW. International Visual Culture Review*, 16(3), 279-290.
<https://doi.org/10.62161/revvisual.v16.5266>
- MILLER-IDRISS, C. (2025). Misogyny incubators: How gaming helps channel everyday sexism into violent extremism. *Frontiers in Psychology*, 16(1537477).
<https://doi.org/10.3389/fpsyg.2025.1537477>
- MINISTERIO DE CULTURA (2025). *Encuesta de hábitos y prácticas culturales en España 2024-2025*. <https://bit.ly/4vNms2D>
- MOLESWORTH, M. (2006). Real Brands in Imaginary Worlds: Investigating Players' Experiences of Brand Placement in Digital Games. *Journal of Consumer Behaviour*, 5(4), 355-366. <https://doi.org/10.1002/cb.186>
- NELSON, M. R. (2002). Recall of Brand Placements in Computer/ Video Games. *Journal of Advertising Research*, 42(2).

- <https://doi.org/10.2501/JAR-42-2-80-92>
- NEWHOUSE, A. & KOWERT, R. (2024). Digital Games as Vehicles for Extremist Recruitment and Mobilization. In L. Schlegel & R. Kowert (Eds.), *Gaming and Extremism* (pp. 72-94). Routledge.
- <https://doi.org/10.4324/9781003388371-5>
- NEWZOO (2016). *Global Games Market Report 2015* (free version).
<https://bit.ly/4cmPoqp>
- NEWZOO (2025). *Global Games Market Report 2025* (free version).
<https://bit.ly/30CAzqx>
- NÚÑEZ-BARRIOPEDRO, E., SANZ-GÓMEZ, Y. & RAVINA-RIPOLL, R. (2020). Videogames in Education: Benefits and Harms. *Revista electrónica Educare*, 24(2), 1-18.
<http://doi.org/10.15359/ree.24-2.12>
- PICCIONI, N. (2023). From physical to metaversal events: An exploratory study. *Italian Journal of Marketing*, (2), 119-134.
<https://doi.org/10.1007/s43039-023-00068-1>
- PUSEY, M., WONG, K. W. & RAPPA, N. A. (2022). Resilience interventions using interactive technology: A scoping review. *Interactive Learning Environments*, 30(10), 1940-1955.
<https://doi.org/10.1080/10494820.2020.1772837>
- RAMOS, M. (2006). Cuando la marca ofrece entretenimiento: aproximación al concepto de advertainment. *Questiones publicitarias, revista internacional de comunicación y publicidad*, 11, 33-50.
- REDONDO, I. (2012). The effectiveness of casual advergames on adolescents' brand attitudes. *European Journal of Marketing*, 46(11), 1671-1688.
<https://doi.org/10.1108/03090561211260031>
- RODRÍGUEZ GARCÍA, T. C. & BAÑOS GONZÁLEZ, M. (2009). Publicidades en los metaversos. Un estudio sobre las presencias de marcas en Second Life. *Icono 14. Revista de Comunicación y Nuevas Tecnologías*, (2), 393-405.
- SCHNEIDER, L. P. & CORNWELL, B. (2005). Cashing in on crashes via brand placement in computer games: The effects of experience and flow on memory. *International Journal of Advertising*, 24(3), 321-343.
<https://doi.org/10.1080/02650487.2005.11072928>
- SCOLARI, C. A. (2018). *Las leyes de la interfaz: Diseño, ecología, evolución, tecnología*. Gedisa.
- SELVA-RUIZ, D. (2009). El videojuego como herramienta de comunicación publicitaria: Una aproximación al concepto de advergaming. *Comunicación*, 1(7), 141-166.
- SKIBA, J., PETTY, R. D. & CARLSON, L. (2019). Beyond deception: Potential unfair consumer injury from various types of covert marketing. *Journal of Consumer Affairs*, 53(4), 1573-1601.

- SOUSA, M. (2024). Cities: Skylines: The Digital and Analog Game Design Lessons for Learning About Collaborative Urban Planning. In L. Vale Costa, N. Zagal, A. I. Veloso, E. Clua, S. Arnab, M. Vairinhos & D. Gomes (Eds.), *Videogame Sciences and Arts* (pp. 257-271). Springer Nature Switzerland.
https://doi.org/10.1007/978-3-031-51452-4_18
- SPICER, S. G., NICKLIN, LL., UTHER, M., LLOYD, J., LLOYD, H. & CLOSE, J. (2022). Loot boxes, problem gambling and problem video gaming: A systematic review and meta-synthesis. *New Media and Society*, 24(4), 1001-1022.
<https://doi.org/10.1177/14614448211027175>
- STIFF, J. B. & MONGEAU, P. A. (2016). *Persuasive communication*. Guilford Publications.
- TAPIA-FRADE, A., LÓPEZ-IGLESIAS, M. & DÍAZ-CHICA, O. (2022). Social Gaming Marketing: las marcas juegan en redes sociales. In C. Sánchez Sainz-Trápaga (Ed.), *Estrategias de comunicación publicitaria en redes sociales: Diseño, gestión e impacto* (pp. 87-96). McGraw-Hill.
- VAN BERLO, Z. M. C., 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>
- WAIGUNY, M. K. J., NELSON, M. R. & TERLUTTER, R. (2014). The relationship of persuasion knowledge, identification of commercial intent and persuasion outcomes in advergames: The role of media context and presence. *Journal of Consumer Policy*, 37(2), 257-277.
<https://doi.org/10.1007/s10603-013-9227-z>
- XU, W., LIANG, H.-N., BAGHAEL, N., WU BERBERICH, B. & YUE, Y. (2020). Health Benefits of Digital Videogames for the Aging Population: A Systematic Review. *Games for Health Journal*, 9(6), 389-404.
<https://doi.org/10.1089/g4h.2019.0130>
- YANG, M., ROSKOS-EWOLDSEN, D. R., DINU, L. & ARPAN, L. M. (2006). The Effectiveness of 'in-game' advertising: Comparing College Students' Explicit and Implicit Memory for Brand Names. *Journal of Advertising*, 35(4), 143-152.
<https://doi.org/10.2753/JOA0091-3367350410>
- ZAGAL, J. P., BJÖRK, S. & LEWIS, C. (2013). Dark patterns in the design of games. In *Proceedings of the 8th International Conference on the Foundations of Digital Games* (pp. 1-8). <https://bit.ly/4mp7dHf>
- ZARANTONELLO, L. & SCHMITT, B. H. (2010). Using the brand experience scale to profile consumers and predict consumer behaviour. *Journal of Brand Management*, 17(7), 532-540. <https://doi.org/10.1057/bm.2010.4>

ZENDLE, D. & CAIRNS, P. (2018) Video game loot boxes are linked to problem gambling: Results of a large-scale survey. *PLoS ONE*, 13(11), 1-12.

<https://doi.org/10.1371/journal.pone.0206767>

