Redefining in-game advertising: A systematic literature review and an updated definition

Redefiniendo la Publicidad In-Game: una revisión sistemática de la literatura y una definición actualizada

De-la-Vara-López, J. y De-Marchis, G. P.

Javier De-la-Vara-López, Universidad Complutense de Madrid (Spain)
PhD student in Audiovisual Communication, Advertising and Public Relations at the Faculty of Information Sciences. Advertising creative with more than 14 years of professional experience and recognition at international festivals. Researcher specialized in creativity, video game advertising and the intersection between advertising and new technologies.
https://orcid.org/0000-0003-0483-3088, javivara@ucm.es

Giorgio P. De-Marchis, Universidad Complutense de Madrid (Spain)
PhD in Audiovisual Communication, Advertising and Public Relations and PhD in Psychology. Senior scholar teaching Media Psychology and Media Effects at undergraduate and graduate level at the Faculty of Information Sciences. His research focuses on creativity and psychology applied to communication.
https://orcid.org/0000-0001-9217-3141, gmarchis@ucm.es

ABSTRACT: A precise definition of concepts is a fundamental pillar for constructing valid and reliable knowledge. Consistency in terminology is essential in order to use a common conceptual framework, avoid ambiguities, and facilitate comparability of studies. Following PRISMA guidelines, we ran a systematic literature review searching in Scopus and Web of science databases to identify and analyze the definitions of in-game advertising (IGA). Also, we ran a series of interviews with professionals from the advertising and video game industries in order to understand the professional view of the term. Confusion has been found in the use of IGA and related but different concepts, both in the literature and professional practice. Therefore, we presented a decision tree to facilitate coherent naming in the advertainment area of research and summarized all the research in a redefinition of IGA that synthesizes and updates the previous ones: is the integration of persuasive content, created for a real advertiser, that is part of the playable elements of a video game which has not been developed by the advertiser. This is the first study that uses a systematic approach to define IGA. The decision tree helps scholars and practitioners to clearly classify critical terms related to IGA (i.e., advertainment, advergaming, advergame, product placement, IGA, AGA.) The updated definition and the decision three will help scholars to develop a more coherent literature on IGA and related concepts.

Keywords: video games; advertainment; advergaming; in-game advertising; around-game advertising; product placement; definition; systematic review.

RESUMEN: Para construir un conocimiento válido y fiable es fundamental tener una definición precisa de los conceptos. La coherencia terminológica es esencial para utilizar un marco conceptual común, evitar ambigüedades y facilitar la comparación de los estudios. Siguiendo las directrices PRISMA, realizamos una revisión sistemática de la literatura buscando en las bases de datos de Scopus y Web of Science para identificar y analizar las definiciones de publicidad *In-Game* (IGA). Además, realizamos una serie de entrevistas con profesionales de las industrias de la publicidad y los videojuegos para entender la visión profesional del término. Se ha encontrado confusión en el uso de IGA y de conceptos relacionados

pero diferentes, tanto en la literatura como en la práctica profesional. Por ello, presentamos un árbol de decisiones para facilitar una denominación coherente en el área de investigación del *advertainment* y resumimos toda la investigación en una redefinición de IGA que sintetiza y actualiza las anteriores: IGA es la integración de contenido persuasivo, creado para un anunciante real, que forma parte de los elementos jugables de un videojuego que no ha sido desarrollado por el anunciante. Este es el primer estudio que utiliza un enfoque sistemático para definir el IGA. El árbol de decisión ayuda tanto a los estudiosos como a los profesionales a clasificar con claridad los términos críticos relacionados con el IGA (es decir, *advertainment*, *advergaming*, *advergame*, *product placement*, IGA, AGA). La definición actualizada y el árbol de decisión ayudarán a los académicos a desarrollar una literatura más coherente sobre IGA y conceptos relacionados.

Palabras clave: videojuegos; advertainment; advergaming; publicidad in-game; publicidad around-game; emplazamiento de producto; definición; revisión sistemática.

1. Introduction

The video game sector has become one of the entertainment industries that generates highest revenue worldwide (Newzoo, 2022). At the time of this writing, the number of people who play video games regularly amounts to 3.07 billion, almost 40% of the planet' s total population. The region with the largest number of players is Asia, followed by Europe, Latin America, and North America (Statista, 2021). Revenues for this sector worldwide are expected to reach $423.5 billion in 2026 (Statista, 2023). These data show a growing trend in the video game industry.

Given that a significant part of the population plays video games, advertisers, advertising professionals, and video game developers are constantly thinking about the best ways to reach their audience through video games. In fact, video games offer advertisers an excellent channel to achieve their communication objectives under the guise of entertainment (Kretchmer, 2004). To this end, advertisers use what is known as *advergaming*, that is to say, the practice of using video games to advertise a brand, product, organization, or idea (Pons, 2006). Advergaming encompasses three modalities: *advergames*, *around-game advertising* (AGA), and *in-game advertising* (IGA).

Advergames are video games designed by advertisers for users to play, usually for free. They are usually easy to play, have a short duration and offer quick rewards (Redondo, 2012). These video games allow companies to reach a specific public, promote engagement and introduce messages in a non-intrusive way (Tuten and Solomon, 2013).

AGA is a type of advertising that, as its name says, is "around" the video game. It is similar to TV commercial advertising in that it interrupts users in order to impact them. It is now frequently used in video games on mobile devices. There are four types of AGA advertising: *banners*, *interstitials*, *sponsorship*, and *cross-promotions* (Smith et al., 2014). Banners are advertising pieces, usually graphic, that are inserted in digital media such as websites or apps (Novak and Hoffman, 1997). Interstitials are advertising spaces that interrupt the player's action to show an advertisement. They usually appear at the beginning of the game, between levels, or at the end of the game. They can also provide incentives to motivate players to play; for example, when a player runs out of lives in Candy Crush Saga, he or she can watch an ad, and this action rewards them with an extra life to continue playing. Sponsorships are agreements between brands and video games where brands pay in exchange for appearing in some video game-related activity, such as when Honda paid Riot Games to have its logo shown in a League of Legends tournament. Finally, cross-promotions are the creation of alliances to promote products that benefit both brands, such as when DC Comics and Epic Games launched the physical comic book Batman x Fortnite: Point Zero. Each issue of these comics had a code that could be redeemed inside the Batman game to personalize the physical appearance of a character (i.e., *skins*).

Finally, IGA, according to its most cited definition (see methodology section and Table 1), is "the placement of brands in games" (Yang et al., 2006). An example of IGA is being able to drive one of three different Mercedes-Benz models (namely the GLA, the 300 SL Roadster, and the Silver Arrow) that are in Mario Kart 8 for Wii U and Nintendo Switch.

This article focuses on this last modality of advergaming. Since Scott Adams made the first IGA in his 1978 video game Adventureland ("The Making of Adventureland," 2006), this format has changed substantially, especially in recent years, thanks to video games such as Fortnite in 2017. The most cited definition is twenty-years old and needs to be revised.

In this article, we analyze the given definitions of IGA according to the characteristics that any academic definition must have (Cabré, 1993; Pavel & Nolet, 2001; Valero & Alcina, 2015). In addition to investigating the definition of IGA in academia, we investigate which characteristics the industry considers important. These studies lead us to identify the need to propose a decision tree. Scholars and professionals can use this visual tool to decide which term (i.e., advertainment, advergame, product placement, IGA, AGA) is the most appropriate for each situation. Finally, we propose an updated definition of IGA.

2. Defining IGA

The precise definition of concepts is a fundamental pillar for the construction of valid and reliable knowledge. Consistency in terminology is essential for using a common conceptual framework, avoiding misunderstanding and facilitating comparability and replicability of studies. Furthermore, by having a shared understanding of what constitutes IGA, academics, marketers, advertisers, and game developers can have better communication and align in terms of strategies, implementation, outcome measurement and the implications of IGA.

Sartori (1984) proposes a three-step approach to concept definition as mentioned by Valsangiacomo (2022): reconstructing the concept, creating a new definition, and identifying the defining properties of the concept. The first step in Sartori's proposal involves examining the history of the concept and its current status in the literature. In the case of IGA, this would involve reviewing how the concept has been defined and used in the extant literature. The second step is the creation of a new definition of the concept. For IGA, this could involve proposing a definition that reflects the current characteristics and uses of IGA in the advertising industry. Finally, the third step is to identify the defining properties of the concept (i.e., the conditions necessary for the concept to be true and unique.) For IGA, these properties could include features such as the integration of advertising into gaming.

Although Sartori's approach provides a useful structure for defining concepts, it also presents certain limitations. For example, the second step of creating a new definition can be problematic if it is based on an insufficient or biased understanding of the concept. In the case of IGA, being a term that has both academic and professional relevance, there is a risk that key-defining characteristics of the concept may be omitted if we only focus on the academic literature. We believe that it would be more effective to perform the third step before the second in this case. Identifying the defining properties of the concept may provide a more solid basis for the creation of an updated definition. This change of order would allow for greater flexibility and adaptability in concept formation and could result in a definition that is more precise and relevant.

Moreover, the third step of Sartori's concept definition theory is ambiguous because Sartori speaks of true elements by definition to identify them. Instead, we structure the definition of concept properties by applying the recommendations of Cabré (1993), Pavel & Nolet (2001), and Valero & Alcina (2015). These authors provide valuable guidelines for the delimitation of concepts through the identification of their essential characteristics. Their linguistic approach offers a complementary perspective that can enrich and deepen our understanding of concepts,

and in particular, of the concept of IGA. The recommendations of these authors focus on two fundamental aspects of definitions: content and form.

The content is the conceptual part of a definition and its essence. Sartori (1984) implicitly emphasizes content to identify the defining properties of a concept. In this sense, a good definition must situate the concept within its field of specialty; then, it has to specify the essential characteristics that differentiate it from the rest of the terms. These characteristics can be intrinsic and extrinsic. The intrinsic or inherent characteristics of the object are those that can be observed by using the senses and do not require additional knowledge about their use or origin. For example, size, shape, color, or design are intrinsic characteristics of material objects. Extrinsic or relational characteristics are those that describe the relationship of the product to other entities. There are two subgroups of this type of characteristic: use and origin. Location, rank, functioning, or application are examples of use; method of manufacture, country of origin, or time are examples of origin (Wüster & Cabré, 2010).

Form refers to how the concept is expressed linguistically. The concept has to be understood and avoid confusion. To this end, a definition should a) be simple, b) avoid comparison of concepts, c) be self-sufficient, and d) be adapted to recipients or audience. Simplicity (a) implies the definition to be concise and clear, avoiding the use of ambiguous words. Avoiding the comparison of concepts (b) means not defining a concept by negating or equating it to another. Self-sufficiency (c) means that the definition should not depend on any other element; therefore, another concept should not be explained within the same definition. Finally, the definition must be adapted to its addressees (d); it means that the definition must have an adequate expression so that it fits the receiver's profile correctly and can be understood.

To carry out the process, we will conduct two studies. Firstly, we will run a content analysis of existing academic literature and definitions of IGA. The objective of this study will be to identify common characteristics and uses of IGA. The characteristics of IGA are necessary to differentiate the term from other similar terms, such as advergames. Secondly, we will run a survey of players and advertising professionals to obtain their perspectives on IGA. This second study will help us understand how IGA is perceived and experienced in practice.

3. Study 1

3.1. Methodology

A systematic review was carried out with the aim of finding definitions of in-game advertising to subsequently identify its defining characteristics. The PRISMA guidelines (Page et al., 2021) were used to guide the systematic review. A search was run in Scopus[1] and Web of Science[2] multidisciplinary databases. Records that used the term "in-game" or "IGA" in the title, abstract, or as keywords, and that also included any term derived from "advert" (e.g., advertisement, advertising) were selected. These searches retrieved a total of 322 records. Ninety-three documents that were repeated in the two databases were eliminated. Two other articles that were not written in English or Spanish were eliminated. Thirty-eight articles were also eliminated after reading the title and abstract because they were unrelated to advertising, video games, or the acronym IGA stood for something else (e.g., "Cholestatic jaundice and IgA nephropathy induced by OTC muscle building agent superdrol"). At this point, 189 articles remained. Twenty-nine documents were inaccessible; none of these records made direct reference to IGA definitions.

---

[1] The Scopus search syntaxis was: title-abs-key ("in game") or title-abs-key ("in-game") or title-abs-key ("IGA") and title-abs-key (advert*)

[2] The WoS search syntaxis was:((TI="in game" OR AB= "in game" OR TS= "in game" OR AK= "in game") OR (TI="in-game" OR AB= "in-game" OR TS= "in-game" OR AK= "in-game") OR (TI="IGA" OR AB= "IGA" OR TS= "IGA" OR AK= "IGA")) AND ((TI=advert* OR AB= advert* OR TS= advert* OR AK= advert*) OR (TI=adverg* OR AB= adverg* OR TS= adverg* OR AK= adverg*))

The remaining 160 documents were read in search of definitions. Definitions were only considered when the authors wrote: "IGA is," "IGA refers to," or similar. For example, we considered a definition neither the sentence "in-game advertisements can be further described as either 'environment ads' or 'immersive ads.' (...) in-game ads are incorporated into the game itself, either as static displays or interactive elements..." (Interactive Advertising Bureau, 2010), nor "companies placing their brands within a game and engaging in in-game advertising (IGA)" (Walsh et al, 2014).

Among the 160 papers, 43 articles were found to have a definition of IGA. Of these, 16 articles had a definition created by the author(s). None mentioned how they had developed it. Another 11 articles cited previous definitions, but had modified them, or created their own definition based on statements by other authors; for these reasons, we consider them as new definitions. Finally, among the remaining 16 articles to reach 43, six articles had a definition and also referred to six documents that had a different definition and were not found in the initial search. Therefore, the total number of definitions found was 49. Once the articles corresponding to those six references were encountered, six new definitions were found. Four had the author's own definitions and two created their own definition by quoting previous definitions or partially relying on statements by other authors already present in the initial search. Therefore, a total of 33 different definitions were found.

Figure 1. PRISMA search and selection of reports
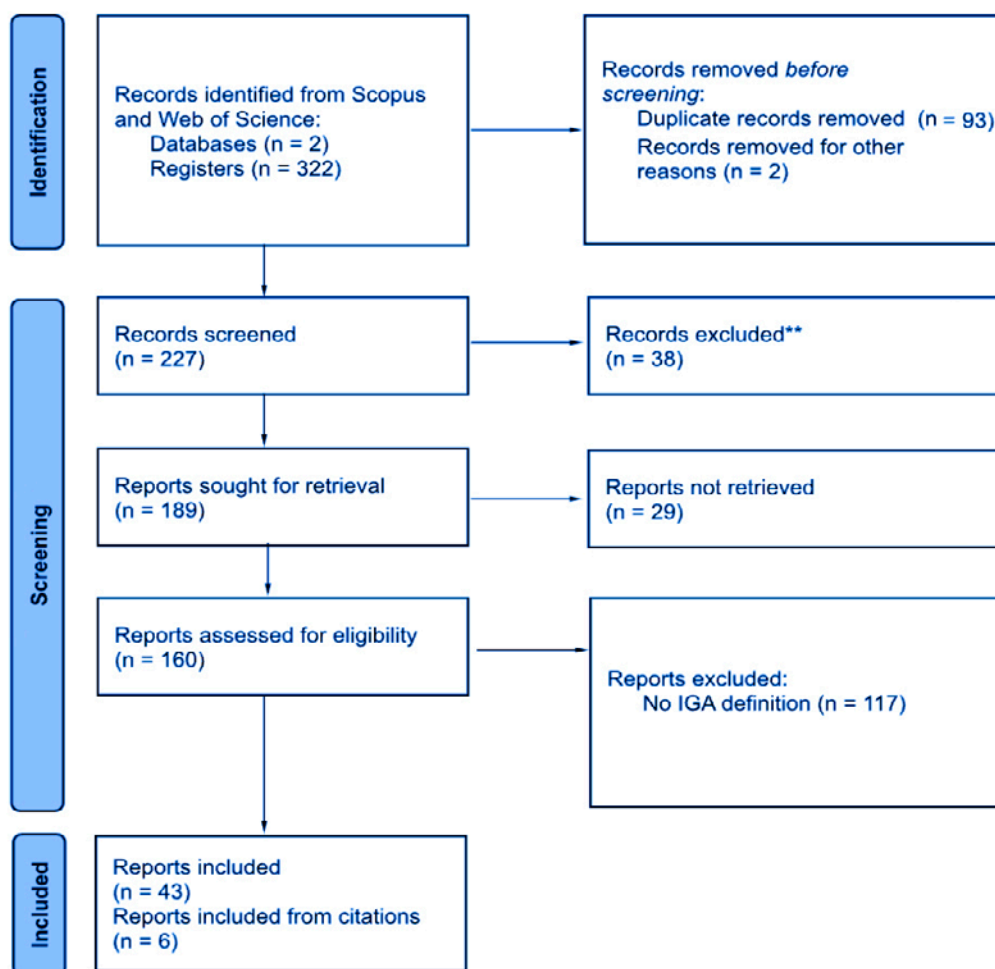
Source: Authors elaboration.

3.2. Results and discussion

The analysis of the frequency of use of the definitions (Table 1) shows that numerous definitions have been suggested (N = 49)[3]. However, there is no definition accepted by the academic community because the most commonly used definition represents only 10.2% of the definitions (n = 5).

Table 1. Frequency of use of IGA definitions

Author(s)	Date	Title	Number of citations
Yang, M., Roskos-Ewoldsen, D., Dinu, L., & Arpan, L.	2006	The effectiveness of «in-game» advertising: Comparing college students' explicit and implicit memory for brand names.	5
Terlutter, R., & Capella, M.	2013	The gamification of advertising: Analysis and research directions of in-game advertising, advergames, and advertising in social network games.	3
Smith, M., Sun, W., Sutherland, J., & Mackie, B.	2014	Game advertising: a conceptual framework and exploration of advertising prevalence.	3
Bogost, I.	2007	Persuasive games. The expressive power of videogames.	3
Nelson, M. & Waiguny, M.	2012	Psychological processing of in-game advertising and advergaming: branded entertainment or entertaining persuasion?	2
Herrewijn, L., & Poels, K.	2014	Rated A for advertising: A critical reflection on in-game advertising.	2

Source: authors elaboration.
Note: Only definitions that have received at least two citations have been included.

The first content parameter is that the definition must situate the concept in its field of expertise. Several definitions frame the concept of IGA within the field of video games, but there are also some that place it within the field of games in general. For example, Yang et al. (2006) define IGA as "the placement of brands in games." If this definition were used, it would be including card games or board games, for example, within IGA when it should be classified as product placement instead. Other definitions place IGA within the field of digital games (Verberckmoes et al., 2016; Herrewijn & Poels, 2014). Video game is the term commonly used for digital games as well, and there is no indication that this will change. Since video game purchases are often made without physical media, we believe that the term video game will not be changed for that of digital game. The other field of expertise in which IGA is included is related to persuasive communication. Miller (1980, cited by Nahai, 2017) defines it as "any message that is intended to shape, reinforce or change the responses of another." In turn, Dillard (2010) defines the term persuasion as "the use of symbols (sometimes accompanied by images) by one social actor for the purpose of changing or maintaining another social actor's opinion or behavior," and Jones & Simons (2017) as "human communication designed to influence the judgments and actions of others." We consider persuasive communication as a communication that creates, reinforces, or changes attitudes or behaviors of a receiver according to the intention of a sender, and in which at least one of the participants is a living being. With this, we add the idea of creating attitudes, as well as maintaining or changing them, and the idea of influencing the emotional component. This component is implicitly included in the term "attitude." In fact, according to one of the most frequently used model of attitudes, the three-dimensional model (Chaiken & Stangor, 1987), attitudes have an emotional, a cognitive, and a conative component. However, the terms "opinion" or "judgment" do not include emotions. Returning to the analysis of the definitions,

---

[3] A table with the analysis of the definitions is presented as Supplementary Material and is accessible through the following link: https://archive.org/details/supplementary-table.-comparative-analysis-of-iga-definitions

and concerning persuasion, there is only one definition that associates IGA with persuasive communication, specifically: "persuasive messages in (online) computer and video games, known as in-game advertising (...)" (van Reijmersdal et al., 2010). All remaining definitions place it in specialties that fall within this field, such as product placement, advertising, promotion, marketing, or brand communication. This is relevant because framing IGA within a restrictive concept (e.g., product placement) can exclude certain content from the IGA definition, such as a mini-game created in Roblox by La Caixa Foundation.

The second parameter to be analyzed within the content is the essential and distinctive characteristics that differentiate it from other terms such as advergaming or product placement. These characteristics, in turn, are divided into intrinsic and extrinsic.

As for the intrinsic characteristics, there is only one definition that mentions them: "in-game advertising is a type of product placement within a video game in a textual, auditory, visual and interactive way, used for decades" (Rodríguez et al., 2021). However, these types of characteristics do not differentiate IGA from other related concepts, such as AGA, since both share the same intrinsic characteristics. Therefore, adding them to a definition could confuse both terms.

The extrinsic characteristics, in turn, are divided into origin and use. Like intrinsic characteristics, extrinsic characteristics of origin are dispensable as they do not differentiate IGA from other similar concepts. It should be noted that there is only one definition that mentions extrinsic characteristics of origin, and it is the same one that refers to intrinsic characteristics: "In-game advertising or IGA is a type of product placement (...), used for decades" (Rodríguez et al., 2021).

On the other hand, various extrinsic characteristics of use have been found. Among these characteristics, some definitions refer to how the IGA should be integrated. The most frequently mentioned feature is that it has to be integrated into the video game environment. Another frequently repeated feature is that IGA can be integrated into the story or dialogues. These features are important because they differentiate IGA from AGA. There is another set of characteristics of use that relate to the advertising media on which the IGA is placed, such as displays or hyperlinks. Depending on what the authors mean by displays, these features may overlap with the AGA. For this overlap not to occur, the displays that are IGA have to be part of the game, that is, of everything that has to do with its playable elements. There is another series of characteristics of use that refer to how the video game in which the IGA is implemented must be. According to several of the definitions collected (Smith et al., 2020; Wang & Chou, 2019), video games have to exist previously (i.e., they cannot be created on purpose to implement IGA). Moreover, Verberckmoes et al. (2016) suggest that video games do not have to be developed for advertising purposes. However, video games can be developed for advertising purposes because IGA can be used as a means of financing video games. The critical issue is that advertising purposes have not to be a primary purpose. Finally, some definitions state that video games must be commercial (Smith et al., 2020; Bogost, 2007); that is, they must be created with the primary purpose of sale. However, some video games, such as League of Legends or Clash Royale, do not have a sales purpose as they do not require an initial payment or subscription to play. Among the free-to-play games, some include IGA, such as Free Fire. All these types of characteristics related to video games are used to differentiate IGA from advergame since the latter are games created with a primary persuasive purpose. Continuing with extrinsic characteristics of use, Yoon (2019) argues that there has to be a commercial consideration for IGA to exist. This assertion is outdated as in-game advertising, like traditional advertising, can be *earned*, which means that some users choose to promote brands without any commercial interest (Stephen & Galak, 2012). Thanks to games such as Roblox, in which users can create their own games (including brands), IGA can include earned media. Following this same line, within the extrinsic characteristics of use that describe how brands that appear in the IGA should be, Smith et al. (2014) argue that only real brands should be used in the IGA. On the contrary, Palmas et al. (2021) consider that both real and fictitious brands can be used.

However, fictitious brands appearing in video games are not created to exercise persuasive communication and do not have either commercial (e.g., paid by the brand owner) or earned communication (e.g., forwarded by users). To conclude with the extrinsic characteristics of use, the IGA can be used as content by itself within the video game, such as, for example, the Scott Travis concert in Fortnite. This feature does not appear in any of the definitions and is privative of IGA. Only Yoon (2019) describes something similar: "In-game advertising (IGA), which refers to the inclusion of any brand or product identifiers within a digital game in return for commercial consideration (...) in-game advertising can be integrated within any gaming content...".

There are four parameters in the form section. The first is simplicity. Under this parameter, we find definitions that do not express what IGA is concisely and clearly. Some definitions add more information than necessary (e.g., Kumar & Mittal, 2020), clarify information with annotations (Raatikainen, 2012), organize information in a way that generates confusion (e.g., Cianfrone et al., 2008), use metalinguistic forms (e.g., Grace & Coyle, 2011) or add examples in the definition itself (e.g., Siemens et al., 2015). The second parameter is that the definition has to avoid comparing concepts. Eleven definitions compare concepts; 10 of them do so by comparing IGA to product placement (e.g., Grace & Coyle, 2011) and the remaining one by comparing IGA to what De Certau (1984, cited by Martinez, 2019) calls "strategy." This strategy concept conflicts with the third parameter, which requires a definition to be self-sufficient. The fourth parameter of form suggests that the message has to be adapted to the addressee. Almost all definitions that fail in this section use specialized language, usually related to marketing. For example, Bogost (2007) says that IGA is "the dynamic placement of digital ad units inside commercial videogames." The expression "dynamic placement" is only understandable to experts in marketing-related areas, thus excluding all other readers.

4. Study 2

4.1. Methodology

Seventeen interviews were conducted to obtain a more complete view of the characteristics of IGA that are considered important in the marketplace. This step has been carried out with the recognition that the delimitation of the concept of IGA must transcend the academic field and encompass the professional perspective. The sampling method employed was twofold: firstly, a convenience sample, as we selected professionals to whom we had access. Secondly, a snowball sample, as these professionals referred us to other professionals. Journalists, advertisers, gamers, and game developers were selected to be represented in the sample due to the diverse definitions of IGA they could provide. The interviews were conducted by telephone and lasted approximately 10 minutes each. They were recorded with the consent of the participants for subsequent analysis. After a brief introduction, all participants were asked the same three issues: IGA definition, IGA functions and IGA main characteristics. We sought to find out what practitioners considered that a correct definition of IGA should contain. The interviews were analyzed using a qualitative content analysis process. After transcribing the interviews, the texts were read multiple times to familiarize ourselves with the content. Segments of the text relevant to answering the research questions were identified and coded. These coded segments were then grouped to identify recurring themes and patterns. Finally, the identified themes and patterns were analyzed to interpret the meaning of the data in the context of the research.

4.2. Participants

The interviews were conducted with 17 professionals who have had contact with the IGA at some point in their careers. Two video game developers; two journalists specialized in video games; two professional video game players; two brand strategy professionals; a Sales Manager

of audiovisual productions; a product manager of a video game distributor; two co-owners of advertising agencies; two Account Managers of digital advertising agencies; two Creative Directors of digital advertising agencies; and a Director of Studies of an advertising school, were interviewed. Within the video game developers interviewed, one was the founder of two video game creation companies, and the other, apart from being a founder, was also responsible for the development of creative solutions to technical problems in the form of hardware and software (aka. creative technology.) The sample consisted of five women and twelve men aged between 21 and 48, being the average age 39 years old. The professional players lived in Madrid and Valencia. The rest of the professionals worked in companies based in Madrid, although their companies were headquartered in the United States, Spain, France, or Italy. The sample consisted of a video game publisher, a streaming content platform, five advertising agencies, two media agencies, a creative school, a video game creation company, a digital advertising solutions company, and two online video game magazines. At the time of writing, none of the interviewees was working for the same company.

4.3. Results and discussion

The first finding was that the professionals did not define the concept by explaining its meaning, but rather through examples. This may imply that they did not know a precise definition and had to create it through practice. Only five of all the practitioners attempted to give a definition without using examples. Moreover, all five definitions were generic, so they did not precisely determine the meaning of IGA. For example, one of the participants said that IGA is "any advertising action that can be carried out within the universe or reality of the video game itself."

Two participants differentiated IGA from advergame. One participant used this example when defining IGA: "it is advertising that is shown in video games that are not created for advertising purposes". Despite this, as will be seen below, there are video games that use advertising for financing its development. Therefore, they have advertising purposes, even if it is not their main purpose. It is also necessary to highlight the case of some specific titles, such as Global Gladiators. This was a video game created by Virgin Games, distributed as a commercial video game and sold in stores for the Mega Drive, Master System, Game Gear and Amiga, which actually had McDonalds behind it. What players perceived as IGA was really an advergame, as it had a primary purpose of persuasion.

On the other hand, most of the interviewees did not spontaneously differentiate between AGA and IGA. Seven of the participants commented on terms related to both, and only two indicated that IGA must be integrated within the video game while AGA has not because they are banners that are launched independently of the video game; the remaining five included AGA as a type of IGA. Banners or videos that appear in video games were the most brought up examples of AGA. One of the participants commented that even media agencies were selling this type of media as IGA. Another participant contributed that AGA, when it comes to mobile video games, usually carries some kind of reward, such as extra points to be able to continue playing. This characteristic of AGA affects the gameplay of the video game in which it appears, so a good definition of IGA should be able to clearly differentiate them.

When interviewees were asked about the main functions of the IGA, a professional working for a video game distributor commented that the main function of the IGA is to serve as a source of revenue for video game developers and distributors. He gave the example of free-to-play video games where the IGA serves as yet another method of financing. One of the professional gamers commented that its main function has to be to complement the video game and enable the creation of new content thanks to the money generated by the IGA for the developer. Another function, they commented on, was that the IGA has to serve to make the virtual more real, such as advertising billboards in soccer stadiums. This highlights that the main functions of the IGA can change depending on the observer.

On the other hand, the feature that came up most often was that the IGA, in order for it to work, has to be very well integrated within the game. They also mentioned that the IGA has to be part of the experience that players have when playing the game, such as the Venom event with exclusive items that players could use in Free Fire. Another interviewee mentioned that, in the past, the IGA could not be changed or removed, as video games could not be updated. That meant that once released, no changes could be made. Today, however, video games can be updated, allowing for the removal or modification of IGA. Therefore, to say that the IGA is enduring is wrong. Another practitioner claimed that the IGA can transcend the medium in which it has been placed, as with other types of advertising. He added that IGA can play a fundamental role in the world of public relations if it is used as a tool for innovation, and gave the example of the concerts in Fortnite, which reached different media, such as TV news or online newspapers. This is relevant, as this is one of the reasons why IGA has to be placed in the field of persuasive communication specialty. The last feature they provided was that IGA, in addition to being paid, can be earned or exchanged. One participant gave a fictitious example of a cereal brand appearing inside a video game in exchange for the video game appearing on the cereal box.

To conclude this section, four professionals said that IGA is a kind of product placement within video games. This suggests that they understood IGA as a typology of product placement. One of them, who worked in a media agency, commented that when she talked about IGA to her clients, she called it "product placement within video games."

5. Difference between product placement and in-game advertising

Throughout the research, different terms have been found to refer to IGA, such as in-game placements (Çeltek, 2010), product placement in video games (Toh & Leng, 2014), or video games brand placements (Nelson et al., 2006). These terms refer to product placement to facilitate the understanding of the IGA concept. However, they lead to confusion as they incur in a comparison that restricts the concept of IGA. In addition to these terms, there are several definitions, both academic and professional, that compare IGA with product placement. It is likely that, in part, this confusion is due to the fact that the placement of a brand or product in a film is called product placement, while when it is placed in a video game it is called IGA. For these reasons, it is also necessary to analyze the other differences between the two terms.

According to Smit et al. (2009) product placement is the same as *brand placement* and *in-program sponsoring*. Balasubramanian (1994) proposed one of the most widely cited definitions of product placement. He defined it as "a paid product aimed at influencing movie (or television) audiences via the planned and unobtrusive entry of a branded product into a movie (or television program)". Guo et al. (2019) summarize three characteristics of placement: a) planned and deliberate integration, b) the ability to discreetly convey an intention to persuade, and c) intentional integration for money or other valuable goods. These three features are also characteristic of IGA, which explains why the two terms are often confused. The differences consist that a) IGA occurs only in video games while product placement does not exist in video games but is referred to as product placement or brand placement in TV shows or movies; another difference is that b) IGA players can interact directly with brands and/or products, such as the Pepsi cans in Bionic Commando that provide extra energy, while in product placement there is no such direct interaction between the user and the brand or product. This unique capacity for direct interaction is one of the defining properties of IGA that we have identified in our linguistic analysis, and which distinguishes IGA from related terms.

Product placement has a wide range of benefits (Redondo & Bernal, 2016; Pillai et al., 2014) and possibilities. Smith et al. (2014) listed some examples, such as advertisements that sponsor programs; displays of logos, products, or brands in a scene; or entire programs developed in collaboration with sponsors in which the brand becomes an intrinsic part of the program itself.

Figure 2. Decision tree to differentiate between IGA, AGA, and Advergame
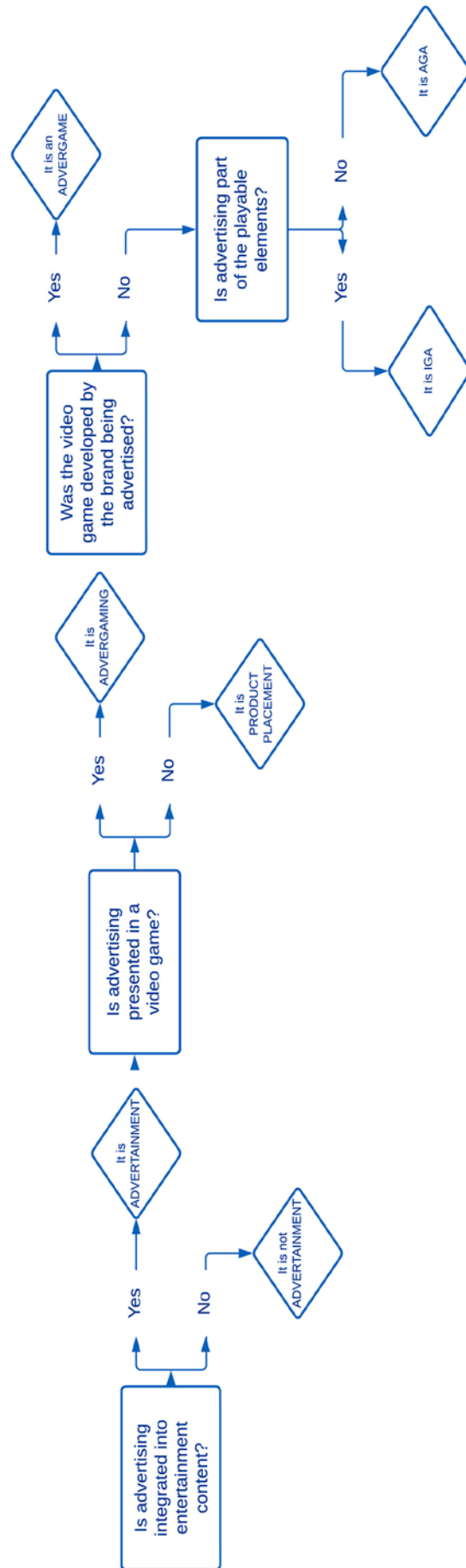
Source: Authors elaboration.

This last example is similar to the advergame, so the authors argue that product placement encompasses both IGA and advergame. In line with this opinion, Aliagas et al. (2021) commented that in the video game industry there are two ways of using product placement, the first is called advergame and the second is IGA. However, we argue that IGA should not be defined as product placement in video games, since doing so would be adding confusion by attributing to the term characteristics of others (e.g., attributing to product placement the ability to interact or the ability to place an aesthetic product on the protagonist that can distort the image, such as a Spiderman costume). In the case of attributing these characteristics to product placement, it would be necessary to stop using the other terms (e.g., IGA, advergame) with the consequent loss of nuances when communicating. To facilitate the decision of academics and practitioners on which term to use in each case, a decision tree has been created (Figure 2).

Unlike existing definitions, the decision tree takes into account factors specific to video games. For example, we consider interactivity (i.e., being part of the playable elements,) as a key factor in in-game advertising. These factors are unique to video games and have a significant impact on how in-game advertising is perceived and interacted with.

6. General Discussion

Many definitions of IGA have been given; however, these definitions have not been developed according to the principles that a correct academic definition should have. Moreover, most of them are outdated and do not consider the possible advances of the IGA, such as the inclusion of content within the video game (e.g., trailer for Star Wars: The Rise of Skywalker, released in 2019). Moreover, there are definitions that could harbor AGA in them. For example, Smith et al. (2020) state that "in-game advertising consists of placing an advertiser's brand in an existing commercial game to promote its products or services." Therefore, according to this definition, advertising placed in a banner is IGA. Conversely, Vashisht et al. (2020) defines IGA as "the integration of non-fictional products and brands within the game environment of video games and computer games through marketing communication mechanisms in simulated real life". Therefore, according to this definition, advertising placed in a banner is not IGA (in fact, it is AGA). If these authors run a study on banner congruence effects, the former would make conclusions about IGA, while the latter would make conclusions on a different kind of communication, likely, AGA. These results would harm research, since we are talking about different types of advergaming connected to the same empirical results.

The variety of existing interpretations and continuous advances in the field highlight the need for a precise and adequate definition of IGA. Following Sartori's (1984) proposal for the creation of a revised and improved definition, we have carried out steps one and three, which consist of reconstructing the concept and identifying the defining properties of the concept. Now, we will focus on the second step, which is the proposal of an updated definition.

Based on the analyses made of the academic and professional definitions, IGA should be placed within the field of video games and persuasive communication. If we extend IGA to the general field of games, we run the risk of including board games and other formats that are not relevant. Although the context may clarify what type of game we are referring to, a precise definition must adequately delimit the concept. At this point, it is important to note that the metaverse is not a video game. Furthermore, if we limit the definition to specific terms such as 'advertising', we might exclude related areas such as public relations.

As for the characteristics of use, the one most often mentioned is that IGA must be integrated into the video game environment. Different terms related to integration are used in the first words of the investigated academic definitions. These are: "insertion", "incorporation", "inclusion", "positioning", "integration", and "placement". Although they all have similar meanings, they also have enough differences to elucidate which one best fits the term. According to Merriam-Webster, "position" and "place" are similar and both mean to put in a particular place or

position; "insert" is to put or introduce into the body of something; "include" is to be part of a whole or group. "Integrate" and "incorporate" are similar, but "incorporate" refers to being part of an existing whole and "integrate" does not. Since, as we have seen, the IGA can be created during the development of the video game itself or afterwards, the most precise word to be used to define IGA is "integrate".

Several scholars point out as a characteristic of use that IGA can be integrated into the story or dialogues. To encompass aspects beyond the story and dialogues, we believe that IGA should be part of the playable elements of the video game. We understand as "playable element" any essential narrative component that makes up the structure of the game, that is, the characters, the dialogues, the visual elements and any element inherent to the world created for the game, including the game mechanics (i.e., the interactions and systems that govern the way the player interacts with the game). This is important, as it is the way to differentiate IGA from AGA, because the former is integrated directly into the playable elements of the game, while the latter is situated 'around' the video game.

Another important characteristic refers to what is incorporated in video games. Almost all academic definitions talk about the incorporation of brands or products, which means that it does not encompass everything that is considered IGA. Other types of IGA are, for example, rewards (Pepsi vending machines in Bionic Commando, which provide you extra energy when you use them), customizations (Iron Man skin in Fortnite), advertisements in traditional locations (e.g., a soccer field billboard in FIFA) or imaginary ones (e.g., holographic digital sign in Cyberpunk 2077). Therefore, if we group all types of IGA together we are talking about different types of content, understanding it as any material that is customized for an external organization and has a persuasive purpose.

Another important point in the definition of IGA is that the brand, product or service advertised cannot be fictitious. This is because the IGA has to be paid, earned, or exchanged, and a fictitious brand does not use any of these mechanisms to appear in video games. Moreover, the consumer could never acquire it. On some occasions it has happened that a fictitious brand has ended up appearing in the real world, such as Fallout's Nuka Cola; however, it cannot be considered IGA since it is a cross-promotion, and that belongs to the AGA.

Finally, IGA can be used to make video games look more realistic. This is a non-essential feature that neither AGA nor advergames have. Inserting branding on billboards with basketball court advertising, as in NBA 2K, or having car branding visible in games, like Gran Turismo, makes players feel a sense of greater reality and congruence that generates brand recognition (Aliagas et al., 2021). Advertising must be real and consistent in order not to generate rejection, so the best option is to use brands that make sense with the video game itself.

Therefore, we define IGA. IGA is the integration of persuasive content, created for a real advertiser, that is part of the playable elements of a video game which has not been developed by the advertiser.

7. Conclusions

With video games becoming one of the most significant cultural industries globally and their increasing ubiquity, IGA appears to be a persuasive communication tool with considerable potential. In fact, it is foreseeable that advertisers will increasingly look to it to reach their target population. Despite this, there is still no definition of IGA accepted by most academics and there is a great deal of confusion among practitioners about what IGA is. Having a definition accepted by academics and, ideally, also by professionals will foster the development of the area. Furthermore, it would have the potential to improve communication and understanding between academics and practitioners, and to facilitate the development of more effective theories and practices in the field of video game advertising. That is why we have presented an

updated definition of IGA that tries to conform to the canons of a good definition. In addition, specifically in the advertising industry, it will facilitate the development of more coherent marketing strategies, enable more accurate measurement of campaign effectiveness, and enhance communication between game developers and advertisers.

To develop a precise definition, a systematic review has been made of academic definitions of IGA published in papers indexed in the Scopus and Web of Science databases. The definitions found were analyzed and the characteristics of IGA essential for its correct delimitation were identified. The findings were discussed. Subsequently, professionals from different areas and who have worked with IGA, were interviewed to get their vision. These professionals have provided a complementary vision to the academic one. Among other findings, the professionals who use the terms IGA, product placement, or AGA on a daily basis mix the terms up. To solve this problem, and to quickly differentiate the various terms, a decision diagram has been proposed (Figure 1). We believe that this handy tool will help both scholars and practitioners to use related terms more precisely, avoiding confusion.

Finally, all the research has been synthesized in a new definition that follows the canons on the characteristics of a good definition. This definition differentiates IGA with respect to other similar concepts and adds a long-term vision. The definition is intended to encompass a wide range of scenarios that could be understood as IGA, with the recognition that significant technological changes in video games may necessitate future revisions.

References[4]

*Adibi, F., Majidi, B., & Eshghi, M. (2018). Personalized advertisement in the video games using deep social network sentiment analysis. *2018 2nd National and 1st International Digital Games Research Conference: Trends, Technologies, and Applications (DGRC)*.

Aliagas, I., Privado, J., & Merino, M. D. (2021). Proximity, familiarity or congruency? What influences memory of brand placement in videogames. *Journal of Theoretical and Applied Electronic Commerce Research*, *16*(4), 811–827. https://doi.org/10.3390/jtaer16040046

Asociación Española de Videojuegos. (2019). La Industria de Videojuegos - informe anuario. *Asociación Española de Videojuegos (AEVI)*, *53*(9), 1689–1699.

Balasubramanian, S. (1994). Beyond Advertising and Publicity: Hybrid Messages and Public Policy Issues. *Journal of Advertising*, *23*(4), 29–46. http://www.jstor.org/stable/4188949

*Bardzell, J., Bardzel, S., & Pace, T. (2008). Player Engagement and In-Game Advertising. *OTO Insights. New Media Research*. www.onetooneinteractive.com

*Bogost, I. (2007). *Persuasive Games: The Expressive Power of Videogames*. The MIT Press. https://doi.org/10.7551/mitpress/5334.001.0001

*Borawska, A., Borawski, M., Biercewicz, K., Łatuszyńska, M., & Duda, J. (2020). On the effectiveness of using virtual reality games in social marketing. *Procedia Computer Science, 176*, 3047-3056. https://doi.org/10.1016/j.procs.2020.09.199

Cabré, M. T., & Castellví, M. T. C. (1993). *La terminología: teoría, metodología, aplicaciones*. Editorial Antártida/Empúries.

*Cauberghe, V., & de Pelsmacker, P. (2010). Advergames. *Journal of Advertising, 39*(1), 5-18. https://doi.org/10.2753/joa0091-3367390101

Celtek, E. (2010). Advertising in games: Advergaming applications in the tourism industry. *Advertising and Branding: Concepts, Methodologies, Tools, and Applications*, 1083–1108.

Certeau (1984). *The practice of everyday life* (S. Rendall, Trad.). University of California Press.

---

[4] References marked with an asterisk indicate studies used for the analysis of the IGA definition.

Chaiken, S., & Stangor, C. (1987). Attitudes and attitude change. In M. R. Rosenzweig & L. W. Porter (Eds.), *Annual Review of Psychology*, *38*, pp. 575–630

*Cianfrone, B. A., Trail, G. T., Zhang, J. J., & Lutz, R. J. (2008). Effectiveness of in-game advertisements in sport video games: An experimental inquiry on current gamers. *International Journal of Sport Communication, 1(2),* 195-218. https://doi.org/10.1123/ijsc.1.2.195

Codina, E., & Depalle, A. (n.d.). ¿Cómo redactar definiciones y explicaciones de conceptos? - *redac_especializada*. Retrieved December 1, 2020 from https://bit.ly/3PwuSGv

Comscore (2018). *Recaudación y espectadores del cine español*, Ministerio de Cultura y Deporte. https://bit.ly/3LnUcel .

De Besse, Bruno. Terminological Definitions in Wright, Sue Ellen, & Gerhard Budin (1997). *Handbook of Terminology Management,* John Benjamins

Desarrollo Español de Videojuegos. (2020). *Libro blanco del desarrollo español de videojuegos*.

DFC Intelligence. (n.d.). *Global Video Game Consumer Segmentation*. Retrieved November 21, 2020, from https://bit.ly/38D6hyT

Dillard, J. P. (2010). Persuasion. In C. R. Berger, M. E. Roloff, & D. R. Roskos-Ewoldsen (Eds.), *The Handbook of Communication Science* (2nd ed., pp. 203–218). SAGE.

Federación de Gremios de Editores de España. (2019). *Memoria 2019*. 1–15. https://bit.ly/3MxKszB

*Grace, L., & Coyle, J. (2011). Player performance and in game advertising retention. *Proceedings of the 8th International Conference on Advances in Computer Entertainment Technology - ACE '11*. https://doi.org/10.1145/2071423.2071492

Guo, F., Ye, G., Hudders, L., Lv, W., Li, M., & Duffy, V. G. (2019). Product Placement in Mass Media: A Review and Bibliometric Analysis. *Journal of Advertising*, *48*(2), 215–231. https://doi.org/10.1080/00913367.2019.1567409

*Herrewijn, L., & Poels, K. (2011). Putting brands into play: How game difficulty and player experiences influence the effectiveness of in-game advertising. *International Journal of Advertising*, *32*(1), 17-44. https://doi.org/10.2501/ija-32-1-017-044

Herrewijn, L., & Poels, K. (2014). Rated A for advertising: A critical reflection on in-game advertising. En *Handbook of Digital Games* (pp. 305-335). Wiley. https://doi.org/10.1002/9781118796443.ch11

*Huang, J., & Yang, T. (2012). The Effectiveness of In-game Advertising: The Impacts of AD Type and Game/AD Relevance. *International Journal of Electronic Business Management*, *10* (1), 61-72.

*Hudson, S., & Hudson, D. (2006). Branded Entertainment: A New Advertising Technique or Product Placement in Disguise? *Journal of Marketing Management*, *22*(5–6), 489–504. https://doi.org/10.1362/026725706777978703

*Hussein, Z., & Wahid, N. A. (2017). Game-mediated experience: Does brand exposure changing users' attitudes? *Advanced Science Letters*, *23*(1), 550-553. https://doi.org/10.1166/asl.2017.7252

Interactive Advertising Bureau (2010). *Platform status report." Game Advertising*, available: https://bit.ly/3MzIWgA

Jones, J., & Simons, H., (2017), *Persuasion in Society*. 3rd ed. Routledge.

*Kim, Y., & Leng, H. K. (2017). Effectiveness of In-game Advertisement: An Examination of Repetition Effect, Brand Familiarity and the Relationship Between Gaming Skills and Advertising Execution. *Journal of Global Sport Management*, *2*(1), 42–64. https://doi.org/10.1080/24704067.2017.1281714

Kretchmer, S. B. (2004). Advertainment: The evolution of product placement as a mass media marketing strategy. *Journal of Promotion Management*, *10*(1-2), 37-54. https://doi.org/10.1300/j057v10n01_04

*Kumar, V., & Mittal, S. (2020). Mobile marketing campaigns: practices, challenges and opportunities. *International Journal of Business Innovation and Research*, *21*(4), 523. https://doi.org/10.1504/ijbir.2020.105996

*Lee, M., & Youn, S. (2008). Leading national advertisers' uses of advergames. *Journal of Current Issues & Research in Advertising*, *30*(2), 1-13. https://doi.org/10.1080/10641734.2008.10505243

*Lorenzon, K., & Russell, C. A. (2012). From apathy to ambivalence: How is persuasion knowledge reflected in consumers' comments about in-game advertising? *Journal of Marketing Communications*, *18*(1), 55–67. https://doi.org/10.1080/13527266.2011.620768

Martí, J. (2013). *Marketing y Videojuegos: Product Placement, In-Game Advertising y Advergaming*. Boletín Científico de las Ciencias Económico Administrativas del ICEA. https://doi.org/10.29057/icea.v1i2.53

*Martínez, C. (2019). The struggles of everyday life: How children view and engage with advertising in mobile games. *Convergence: The International Journal of Research into New Media Technologies*, *25*(5-6), 848-867. https://doi.org/10.1177/1354856517743665

*Mau, G., Silberer, G., & Constien, C. (2008). Communicating brands playfully: Effects of in-game advertising for familiar and unfamiliar brands. *International Journal of Advertising*, *27*(5), 827-851. https://doi.org/10.2501/s0265048708080293

Miller, G. R., (1980), On being persuaded: Some basic distinctions, in M. E. Roloff and M. E. Miller (Eds), P*ersuasion: New directions in theory and research*. Sage. pp. 11–28

Nahai, N. (2017), *Webs of influence: The psychology of online persuasion*. Pearson Education Limited.

*Nelson, M., & Waiguny, M. (2012). Psychological Processing of In-Game Advertising and Advergaming: Branded Entertainment or Entertaining Persuasion? en Shrum, L. J. (Ed.), *The Psychology of Entertainment Media*. Routledge. https://doi.org/10.4324/9780203828588

Nelson, M., Yaros, R. A., & Keum, H. (2006). Examining the influence of telepresence on spectator and player processing of real and fictitious brands in a computer game. *Journal of Advertising*, *35*(4), 87–99. https://doi.org/10.2753/JOA0091-3367350406

Newzoo. (2022). 2022 Global Games Market Report. In *Newzoo*. https://bit.ly/3OXiDom

Niño, J. I., Cuesta, U., & Martínez, L. (2019). Publicidad in-game (iga): un análisis exploratorio de patrones de personalidad y de respuesta biométrica mediante expresión facial, GSR y Eye-Tracking. *Revista Prisma Social*, *26*, 116–130.

Novak, T & Hoffman, D. (1997). New Metrics for New Media: Toward the Development of Web Measurement Standards. *World Wide Web Journal, Winter Project*. *2*. 213-246.

Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*, *372* (71). doi: 10.1136/bmj.n71

*Palmas, F., Reinelt, R., & Klinker, G. (2021). In-game advertising: Brand integration and player involvement as key influencing factors on brand recall. En *Lecture Notes in Computer Science* (pp. 352-367). Springer International Publishing.

Pavel, S., & Nolet, D. (2001). *Handbook of terminology*. Direction de la terminologie et de la normalisation, Bureau de la traduction.

Pillai, D., Balasubramanian, S.K., & Zanjani, S.H.A. (2014). The effect of individual level variables on the effectiveness of brand placements. *Innovative Marketing*, *10*(4)

*Poels, K., Janssens, W., & Herrewijn, L. (2013). Play buddies or space invaders? Players' attitudes toward in-game advertising. *Journal of Advertising*, *42*(2-3), 204-218. https://doi.org/10.1080/00913367.2013.774600

Pons, J. V. (2006). *Advergaming, cuestiones básicas. - ExeBlog, desarrollo de videojuegos y más.* https://bit.ly/3sINBVc

*Raatikainen, O. (2012). Dynamic in-game advertising in 3D digital games a threat and a possibility. *Nordicom Review*, *33*(2), 93–102. https://doi.org/10.2478/nor-2013-0016

Real Academia Española. (n.d.b). definición. *Diccionario de la Lengua Española.* Retrieved November 19th, 2021 from https://bit.ly/38CPYST

Real Academia Española. (n.d.a). definir. *Diccionario de la Lengua Española.* Retrieved November 19th, 2021 from https://bit.ly/3Lpqq95

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

Redondo, I., & Bernal, J. (2016). Product Placement Versus Conventional Advertising: The Impact on Brand Choice of Integrating Promotional Stimuli into Movies. *Journal of Promotion Management*, *22*(6), 773–791. https://doi.org/10.1080/10496491.2016.1214205

*Rodriguez, R., Arbaiza, F., & Yalan, E. (2021). Percepción de «gamers» universitarios de la UPC sobre el «in-game advertising» de Adidas en el videojuego «FIFA20». *Index comunicación*, *11*(2), 21-40. https://doi.org/10.33732/ixc/11/02percep

Seibel, C., & Jiménez, C. (2009). Definir para todos. La definición como acceso fundamental a la información. *Materiales multimedia para todos: Inclusión y accesibilidad en educación*, 167–184. http://lexicon.ugr.es

Sartori, G. (1984). Guidelines for concept analysis. In *Social science concepts: A systematic analysis*. Sage Publications.

*Siemens, J. C., Smith, S., Fisher, D., Thyroff, A., & Killian, G. (2015). Level up! The role of progress feedback type for encouraging intrinsic motivation and positive brand attitudes in public versus private gaming contexts. *Journal of Interactive Marketing*, *32*, 1-12. https://doi.org/10.1016/j.intmar.2015.07.001

Sierra, R. (2005). *Técnicas de investigación social. Teoría y ejercicios*. 14a edición. Thomson.

Smit, E., van Reijmersdal, E., & Neijens, P. (2009). Today's practice of brand placement and the industry behind it. *International Journal of Advertising*, *28*(5), 37–41. https://doi.org/10.2501/S0265048709200898

*Smith, R., Kelly, B., Yeatman, H., Moore, C., Baur, L., King, L., Boyland, E., Chapman, K., Hughes, C., & Bauman, A. (2020). Advertising placement in digital game design influences children's choices of advertised snacks: A randomized trial. *Journal of the Academy of Nutrition and Dietetics*, *120*(3), 404-413. https://doi.org/10.1016/j.jand.2019.07.017

*Smith, M., Sun, W., Sutherland, J., & Mackie, B. (2014). Game advertising: a conceptual framework and exploration of advertising prevalence. *The Computer Games Journal*, *3*(1), 95-124. https://doi.org/10.1007/bf03395948

Statista. (2021). *Number of gamers worldwide by region 2021. (s/f)*. Retrieved on June 4th, 2023 from https://www.statista.com/statistics/293304/number-video-gamers/

Statista. (2023) Video Games - worldwide. (s/f). *Statista*. Retrieved on June 4th, 2023 from https://bit.ly/45Kovr2

Stephen, A. T., & Galak, J. (2012). The effects of traditional and social earned media on sales: A study of a microlending marketplace. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1480088

*Terlutter, R., & Capella, M. L. (2013). The gamification of advertising: Analysis and research directions of in-game advertising, advergames, and advertising in social network games. *Journal of Advertising*, *42*(2–3), 95–112. https://doi.org/10.1080/00913367.2013.774610

*Tham, S., & Perreault, G. (2021). A whale of a tale: Gaming disorder and spending and their associations with ad watching in role-playing and loot-box gaming. *Journal of Gambling Issues*, *46*, 62–81. https://doi.org/10.4309/jgi.2021.46.5

The Making of Adventureland. (2006). *EDGE*, *162*, 104-107.

*Toh, C. Y., & Leng, H. K. (2014). Demographic differences in recall and recognition rates of in-game advertisements. *Journal of Direct, Data and Digital Marketing Practice*, *15*(3), 187–196. https://doi.org/10.1057/dddmp.2013.76

Tuten, T., & Solomon, M. (2013). *Social Media Marketing*. Pearson Education Limited.

Valero, E., & Alcina, A. (2015). Aspectos críticos de la formalización de características conceptuales en la definición terminográfica. *Terminàlia*, (11), 30-44.

Valsangiacomo, C. (2022). Clarifying and defining the concept of liquid democracy. *Swiss Political Science Review, 28*, 61– 80. https://doi.org/10.1111/spsr.12486

*van Reijmersdal, E. A., Jansz, J., Peters, O., & van Noort, G. (2010). The effects of interactive brand placements in online games on children's cognitive, affective, and conative brand responses. *Computers in Human Behavior*, *26*(6), 1787-1794. https://doi.org/10.1016/j.chb.2010.07.006

*Vashisht, D., & Chauhan, A. (2017). Effect of game-interactivity and congruence on presence and brand attitude. *Marketing Intelligence & Planning*, *35*(6), 789-804. https://doi.org/10.1108/mip-01-2017-0018

Vashisht, D., Mohan, H. S., & Chauhan, A. (2020). In-game advertising: the role of newness congruence and interactivity. *Spanish Journal of Marketing-ESIC, 24*(2), 213-230. https://doi.org/10.1108/sjme-02-2019-0012

*Verberckmoes, S., Poels, K., Dens, N., Herrewijn, L., & De Pelsmacker, P. (2016). When and why is perceived congruity important for in-game advertising in fantasy games? *Computers in Human Behavior*, *64*, 871-880. https://doi.org/10.1016/j.chb.2016.07.062

Walsh, P., Zimmerman, M. H., Clavio, G., & Williams, A. S. (2014). Comparing Brand Awareness Levels of In-Game Advertising in Sport Video Games Featuring Visual and Verbal Communication Cues. Communication & Sport, 2(4), 386-404. https://doi.org/10.1177/2167479513489120

*Wang, S. S., & Chou, H.-Y. (2019). Effects of game-product congruity on in-app interstitial advertising and the moderation of media-context factors. *Psychology & Marketing*, *36*(3), 229-246. https://doi.org/10.1002/mar.21174

Wüster, E. & Cabré, M. T. (2010). Introducción a la teoría general de la terminología y a la lexicografía terminológica. Girona, Documenta Universitaria. Retrieved from https://bit.ly/3Llr8Ek

*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

*Yoon, G. (2019). Advertising in Digital Games: A Bibliometric Review. *Journal of Interactive Advertising*, *19*(3), 204–218. https://doi.org/10.1080/15252019.2019.1699208