MINORS TRAPPED IN THE MAGICAL WORLD OF AUGMENTED REALITY, ADVERGAMING AND SOCIAL NETWORKS

MENORES ATRAPADOS EN EL MÁGICO MUNDO DE LA REALIDAD AUMENTADA, EL *ADVERGAMING* Y LAS REDES SOCIALES

Dr. M. Esther del Moral Pérez

University of Oviedo, Spain

Dr. Lourdes Villalustre Martínez

University of Oviedo, Spain

Dr. M. Rosario Neira-Piñeiro

University of Oviedo, Spain

RESUMEN

La Realidad Aumentada (RA) ofrece nuevas oportunidades para crear escenarios publicitarios atractivos para los menores al sumergirlos en mundos mágicos interactivos, recrear situaciones fantásticas y convertirlos en protagonistas de hechos sorprendentes. La publicidad enriquecida con RA posibilita la interacción virtual y lúdica con objetos 3D, logrando involucrar a los consumidores emocionalmente e incrementando el efecto *flow.* Este fenómeno suscita recelos en el ámbito educativo pues su poder inmersivo aumenta la asimilación acrítica del discurso publicitario. Esta investigación analiza las estrategias y recursos persuasivos adoptados por diferentes campañas publicitarias que integran RA, dirigidas a la generación *Smartphone,* familiarizada con los *advergames* e instalada en redes sociales. Finalmente, se proponen pautas para formarlos en el análisis crítico, promoviendo modelos de consumo inteligente.

ABSTRACT

Augmented Reality (AR) provides new opportunities to create attractive settings for minors, as it immerses them in magical interactive worlds, recreates fantastic situations and makes them experience surprising events. Publicity enriched with AR enables virtual and playful interaction with 3D objects, involving consumers and increasing the flow effect. This phenomenon provokes suspicion in the educational environment, as its immersive power increases the uncritical assimilation of advertising discourse. This research analyses the strategies and persuasive resources used in several publicity campaigns with AR, addressed to the Smartphone generation, which is used to advergames and social networks. Finally, some keys are proposed, aimed at training young people in the critical analysis and promoting models of intelligent consumption.

Palabras clave

Advertainment; advergames; redes sociales; realidad aumentada; jóvenes; publicidad; alfabetización publicitaria.

Keywords

Advertainment; advergames; social network; Augmented Reality; young people; advertising; advertising literacy.

1. Introduction

The new digital era is strongly influencing the advertising strategies to reach the different audiences and, especially, the youngest ones. The traditional advertising discourse does not appeal to minors, which is why more attractive formulas are being adapted which can involve them through games and entertainment –focused on branded content to transmit persuasive messages (Álvarez, 2014)– simultaneously empathizing with them on an emotional level (Del Moral & Fernández, 2014), advocating interactivity and taking advantage of the connectivity that stems from the interrelationship with their contacts on social networks.

Some research works (Mallinckrodt & Mizerski, 2007) stress the influence that the invitation to gaming –by means of an advergame- exerts on youngsters' positive perceptions about a specific product, above all connected with a greater affinity towards the brand which entertains them. More precisely, the youngest ones are the most sensitive, and they develop a stronger emotional link with those brands which appear inserted in advergames (Rifon, Taylor Quilliam, Paek, Weatherspoon, Kim & Smreker, 2014), since they associate such brands with something rewarding. Furthermore, when the subjects turn out to be successful at the fun experiences presented by advergames, they become more receptive and more prone to follow the brand (Steffen, Mau & Schramm-Klein, 2013).

Waiguny, Nelson and Terlutter (2012) underline that entertainment is the key of success to guarantee the penetration of an advertising message into the world of the new generations hooked on videogames. According to Huang and Dinu (2010), these interactive playful practices–inherent in advergames– constitute an incentive to

increase the effects of persuasion on minors if they are accompanied by their favorite animated characters.

Therefore, this new advertising context mediated by digital technologies, the Internet and smartphones paves the way for the irruption of Augmented Reality (AR) as a first-order catalyst able to provide experiences of products promoted in 3D (Ruíz & Polo, 2012). These are new advertising formats which have changed discourse directionality, insofar as it is not the brand that approaches consumers, just the opposite, the consumer requests the information and tests the product virtually, becoming a desirable *pseudomagical* element, often forming part of a game and appearing as the prize to be obtained after overcoming the challenges posed, adopting the typical mechanics and dynamics of videogames (Del Moral, 2014).

Social networks are additionally becoming an extraordinary transnational channel to spread information through the interaction of users with their contacts. In this respect, the different brands are placing this social capital at the service of the aforesaid social networks in order to broaden their area of influence. In the specific case of youngsters, since this is a *target* characterized by spending a large proportion of their time hooked on such networks (García-Jiménez, López de Ayala & Catalina, 2013), they are becoming powerful advertising agents. Many of them take part in *online* games and invite their friends on social networks such as *Tuenti, Facebook,* etc., thanks to which brands are benefiting from those entertainment spaces on the networks, generating hybrid formats that give rise to the phenomenon of advergaming (Selva, 2009).

It all shows the need to promote advertising literacy campaigns meant to help the youngest segment of the population shape a critical spirit (Núñez, Falcón, Figuerola &

Canyameres, 2015), so that they can adopt healthy consumption patterns in this digital society which catches them with its appealing suggestions.

1.1. Advertising trends aimed at youngsters in the digital era

The development of advertising strategies addressed to a young audience is being influenced by the emergence of the new digital technologies, as well as by the new entertainment practices that take place in the new scenarios, which combine gaming, interactivity, rewards, competition, collaboration, etc.

1.1.1. From advertainment to advergaming

The term advertainment serves to design those practices resulting from a hybrid between advertising and entertainment (Martínez, 2003), where brands strive to offer consumers products which can be of interest to them, which entertain them with the provision of rewarding interactive experiences (Ramos, 2006). Meanwhile, the advergaming phenomenon makes advertising appropriate the mechanics and dynamics of videogames–aware of their penetration level amongst youngsters–to put them at the brand's service, turning players into its allies, strengthening their ties with products (Smith, 2007) and appealing to their double capacity as players-consumers. This helps provoke their immersion in the game, involving them emotionally and affectively by allowing them to play in first person, to activate their cognitive skills and to orient them towards the execution of attractive missions, taking

advantage of the persuasion possibilities of advergaming to achieve youngsters' loyalty to the brand (Nelson & Waiguny, 2012).

1.1.2. Online games and social networks at the service of advertising

It also needs to be highlighted that the online games hosted on social networks are contributing to promote collaborative entertainment spaces that can virtually summon users from all over the world, supported on the enormous potential of viral communication (Del Moral & Guzmán, 2014). Likewise, advertising is trying to capitalize on the advantages that this entertainment format inserted on social networks can bring when it comes to promoting certain brands. It is worthy of mention in this regard that a number of research results (Okazaki & Yagüe, 2012) highlight how some games become direct drivers of the perceived brand value. Furthermore, the overwhelming presence of youngsters on networks makes them become assets at the brand's service, insofar as they spread amongst their contacts those games through which a specific brand is promoted (Terlutter & Capella, 2013).

1.1.3. Tabvertising and the power of augmented reality

The *pseudo-magical phenomenon of augmented reality* (AR), a result of technological breakthroughs and the emergence of new instruments, is blurring the boundaries between fiction and the real world through perceptive games that contribute to combine tangible elements with imaginary ones, making them converge on a single space in real time (Del Moral & Villalustre, 2013), and offering interesting

applications for mobile devices. This channel is used by advertising to come closer to the youngest ones through the adoption of new strategies focused on an interaction between the product and the brand. The convergence between mobile technology and advertising gives rise to the so-called tabvertising, based on the dissemination of customized/personalized interactive advertising contents specifically created for tablets and smartphones that enhances its appeal for the youngest ones and enriches its messages with exclusive offers, games, etc. (Martínez, Quintas & San Juan, 2012). AR makes it possible to increase both the scope and the impact of advertising on consumers through the incorporation of 3D elements and the provision of closer-to-reality experiences (Liao, 2015).

2. Objectives

Augmented reality (AR) permits to catch consumers' attention, to interact with the product, and to personalize its content. The potential of AR for the advertising industry is so large that the term *ARvertising* is starting to be used as a new blend/portmanteau word resulting from blending the acronym AR (Augmented Reality) and the term *advertising.* Similarly, AR is utilized to involve the consumer through playful experiences with 3D resources and the support on social networks.

Thus, the main objective of this study is to analyze some representative advertising campaigns from the food sector that have resorted to this technology as a means to connect with the young audience, ultimately seeking to issue a number of patterns aimed at promoting advertising literacy amongst this audience.

3. Methodology

3.1. Case study methodology

The case-study-based methodology adopted in our research briefly describes nine AR-assisted advertising campaigns which utilize the three strategies identified above, namely: advergaming; online gaming and social networks; and finally, tabvertising with AR. An analysis about the content in each one of them is subsequently performed that will allow us to compare the selected cases.

3.2. Study sample

The selection of our nine study cases rests on the fulfilment of several criteria: 1) especially targeting children and youngsters; 2) combining a variety of digital resources and technologies in their presentation; 3) adopting one of the aforesaid advertising campaigns, using entertainment to attract consumers; and 4) promoting food products which are most frequently consumed by young people (cereals, soft drinks, etc.).

3.3. Content analysis instrument

Taking as a reference the contributions made by Del Moral (1999) and Bringué (2001), together with the classification provided by Cawood and Fiala (2008) about the utilized augmented reality levels, an instrument was designed to analyze the

content of our 9 selected advertising campaigns addressed to a young audience –and characterized by the use of AR–with a special focus on the following dimensions:

1. Identification of the advertised product (Id) and addressee (A)

2. Advertising strategy: advergaming*,* online games, and tabvertising

3. Brand placement and presentation (P)

4. Objective of persuasive activity (Ob)

5. Technological aspects: AR level (L1: hyperlinks in the physical world; L2: AR utilizing markers; L3: AR by means of images and objects; and L4: augmented vision; combination of digital resources and/or technologies; and interaction favored by the augmented content

6. Psychological aspects: persuasive strategy used (PS), motivating elements (ME) and benefits offered to the consumer (BC)

7. Consumer's role

4. Content

4.1. Results

As already mentioned above, the selected advertising campaigns utilize AR both to increase the consumption of well-known brands and to present a new or improved image of those brands through the adoption of different strategies. All nine cases – three for each advertising strategy, i.e. advergaming; online games and social networks; and tabvertising– are briefly described below, with a subsequent presentation of the tables which, used as a sort of grid, have helped us analyze them in accordance with the previously defined criteria.

4.1.1. Cases where advergaming is adopted as an advertising strategy

4.1.1.1. Short case description

a) *ColaCao,* belonging to the *Idilia Foods* group, utilizes a basketball minigame (https://www.youtube.com/watch?v=XPZoNboHtn8) created by *Carbonbyte* (2015) which is given as a present when buying the product seeking to fidelize children as consumers, appealing to fun as its main persuasive strategy. It is an AR-based application for mobile devices which allows the user to sink a ball into a particular basket that recreates the shape of the actual container where the advertised product comes, thus pervasively showing the brand image throughout the game. The interaction with a mobile device, directing it towards the ColaCao container, starts the application.

b) The Polish food product brand *Winiary* (2012), linked to the *Nestlé* group, presents an advertising campaign with AR to promote healthy food (https://www.youtube.com/watch?v=-5-KPWQWp8c). With that aim, a truck of this company visited 50 Polish schools during a three-month period, offering minors a wide range of AR-based interactive games. In this case, the campaign not only promoted the brand but also boosted a nutritional education approach that could encourage healthy eating habits amongst the youngest ones, placing the emphasis of products which have been traditionally and widely rejected by minors, such as fruit and vegetables.

The campaign resorts to fun through the supply of interactive games related to food issues. Special attention was paid in these games to the design and introduction of characters that could be attractive to children, for instance, little monsters –recreated in 3D thanks to AR– who have to catch and eat healthy food products. The aim sought

is to attract minors –and simultaneously grown-ups– by means of the aforementioned explicit educational aim (Figure 1).

Figure 1. Utilization of advergam*es* with AR as an advertising strategy.

Source: videos of these campaigns on the Internet

c) This spot of the food brand *Nestlé* uses AR (2015), combined with the *Kinect* technology (https://www.youtube.com/watch?v=MAO2dC31SyE) to advertise breakfast cereals. The campaign, carried out in department stores and addressed to the general public, gives participants the chance to become superheroes for a few minutes. After choosing their character (man, woman, or child), the participants can witness their transformation into a superhero, as well as the effects caused by their movements, through a screen.

An appeal is made not only to fun but also to the identification with characters who are familiar and attractive to the consumer (athletic, powerful, with superpowers, etc.), thus providing users with a rewarding self-image. At the same time, a positive message is implicitly being transmitted with regard to the beneficial effects of the food product, associated with health, strength, fitness, etc. The campaign additionally connects with the current *selfies* fashion because each participant obtains a self-portrait as a superhero at the end of this experience. That image is supplied in paper format, but it can also be photographed and spread on social networks, apart from

being shared at the moment when it is generated, since the activity is carried out in an open space.

4.1.1.2. Analysis according to previously defined criteria

Below can be found Table 1, which summarizes the most significant data defining the three campaigns which have opted for an advergaming-based advertising strategy, according to the dimensions considered in the content analysis instrument:

Table 1. Analysis of the cases where advergaming is adopted as an advertising strategy

Identification (Id), Addressee (A) and Consumer's Role (R)	Placement (P) and objective of persuasive activity (Ob)	Technological Aspects	Psychological aspects
Id: *ColaCao* AR for *smartphones* **A:** Children and youngsters **R:** PlayEr	**P:** Cola Cao container **Ob:** Rewarding and fidelizing the consumer, promoting the brand	**Level 3 AR:** Utilization of the product container **Resources:** Fun *app* run in the user's smartphone **Interaction:** Sinking balls into the basket which appears on the screen using the mobile phone	**PS**: Game as a reward for buying the product **ME:** Fun supplied by the game **BC:** Centered on individual play
Id: *Winiary* Games with AR **A:** Children **R:** Player	**P:** Public space (school context) **Ob:** Promoting healthy food through the game and giving a boost to the brand	**Level 3 AR**: Utilization of images to activate AR **Resources**: Large screen, AR activators **Interaction**: The user interacts with AR to achieve the aim of the game: the monsters must catch and eat healthy food	**PS**: Fun **ME**: Design of the game, attractive characters (monsters) for the child addressees **BC**: Centered on fun combined with an educational dimension: promotion of healthy nutritional habits
Id: *Nestlé* Games with AR **A**: General public **R**: Player and optionally transmitter on social networks	**P**:Public space (shopping mall) **Ob**: Promoting the brand through a playful, rewarding activity: transforming the participant into a superhero	**Level 3 AR**: activated by the human body **Resources**: Giant screen where the user's image is projected and transformed with AR **Interaction**: The user performs different movements and observes the effects that they cause on the screen	**PS**: Fun, positive self-image (exploiting the *selfies* fashion), implicitly associating the product with benefits for health **ME**: Design. Identification of the user with superheroes. Positive connotations are linked to the product (health, strength, etc.) **BC**: Fun and implicit attributes of the product

Source: elaborated by the authors

4.1.2. Cases where *online games* and *social networks* are adopted as an advertising strategy

4.1.2.1. Short case description

a) *San Miguel 0.0* beer (https://www.youtube.com/watch?v=u2q6gnF7BGE) set up an amusement area on the street in downtown Barcelona (2012), where a giant screen was used to show the real image of users combined with the virtual image of famous basketball players, thus making users participate in a top tournament after directing the mobile towards the screen, which additionally allowed them to reach the highest scores on the court, with the possibility of posting their achievements on social networks. This advertising strategy makes it possible to link this brand with the success obtained by the Spanish national basketball team–world champion–as well as with sports values. Youngsters are likewise attracted, making them happy with the possibility of virtually competing with their favorite team.

b) The jam and marmalade brand *Hero* (2013) offers a highly didactic *spot* in an animated format which explains how advertising works, placing a special emphasis on the role played by jingles when it comes to capturing consumers' attention (https://www.youtube.com/watch?v=vioCljqWpUc). However, being aware of the positive or negative impact that jingles may have on audiences, they suggest the option of identifying their catchy jingle by means of an *app* for mobile devices (tablet or smartphone). This application can detect the jingle of the spot when it is going to be broadcast either on TV or on the radio, or on the Internet, thus allowing users to download it or to block it depending on their preferences. The most faithful ones are given the option of enjoying the tune and anticipating the spot broadcast, in addition

to the chance of entering into a draw where they can win an assortment of the products sold by this brand (Figure 2).

Figure 2. Utilization of online games and social networks with AR as an advertising strategy

Source: videos of these campaigns on the Internet

c) *Compassion in World Farming* (CWF) (2013) (https://vimeo.com/68368760) offers an advertising campaign oriented to raise consumers' awareness, encouraging them to contribute with funds to help farmers so that they can provide their animals with healthy spaces and food, giving them a proper treatment. It seeks an emotional involvement on the part of the consumer towards the treatment given to farm animals (hens, pigs, cows, etc.) –actually the ones that supply the basic foodstuffs that we consume every day. A solidarity-based game is proposed with this aim that mainly consists in throwing apples to pigs from a real farm.

The playful interaction can be watched through giant billboards installed in London, allowing players –after making a £1 donation and using an app for mobile devices– to virtually throw the pigs an apple to feed them, checking their satisfaction level, and complementing the play with some nice music. The screen shows thank-you messages and personal congratulations to players for their donation, for the purpose of making them feel satisfied for contributing to a good cause. Furthermore, the use of *Facebook*

makes it possible to see how funds increase with the micro-donations (£1), so that the non-profit organization which has undertaken this initiative can not only optimize the facilities where farm animals are kept but also feed them with high-quality products, without exploiting them.

4.1.2.2. Analysis according to previously defined criteria

Similarly, Table 2 below summarizes the features identifying the three campaigns which have used online gaming and social networks as an advertising strategy, in accordance with the dimensions established in the content analysis instrument:

Table 2. Analysis of cases where *online* games and *social networks* are adopted as an advertising strategy

Identification (Id), Addressee (A) and Consumer's Role (R)	Placement (P) and objective of persuasive activity (Ob)	Technological Aspects	Psychological Aspects
Id: *San Miguel App* for mobile devices **D**: Youngsters who like basketball **R**: Player and co-transmitter of information through the networks, to share the scores reached in the game	**P**: Fun area that San Miguel 0.0 has set up in the center of Barcelona **Ob**: Linking the success of the national basketball team and the sports values with the San Miguel 0.0 (non-alcoholic)beer brand	**Level 3 AR**: Activated by directing the mobile towards a giant screen **Resources**: Giant screen where the real images are projected and combined with the fictitious ones integrating the player into the screen Interaction: Using the mobile, the aim is to sink the ball in the basket on the court	**PS**: Fun. Projection of the player's self-image accompanied by the pivots of rival teams **ME**: It enables players to take part in a top tournament. Posting their achievements on social networks. **BC**: It encourages the wish to compete with their favorite team.
Id: *Hero App* for mobile devices **A**: general public and the young audience in particular	**P**: Application for mobiles that detects the brand's spot jingle broadcast on TV, on the radio, or on the Internet	**Level 3 AR**: It is the actual jingle that activates the possibility of being rejected or downloaded by the user. **Resources**: Free *app*	**PS**: Fun. Possibility of enjoying a catchy jingle **ME**: It offers the user the chance to anticipate the broadcast of a *spot*. **BC**: Focused on the spot

R: Active recipients who are invited to enjoy the spot jingle or to block it, if it is not to their liking	**Ob**: Detecting the spot jingle of Hero jams and marmalades on TV, on the radio or on the internet, making possible either its download or its blocking depending on the consumer's taste	**Interaction**: Download and/or blocking of the *jingle* with the mobile	attributes (*jingle*), possibility of having a good time listening to the user's favorite *jingle*. Entering into a draw for an assortment of the brand's products
Id: *CWF* AR for mobile devices **A**: General public **R**: Solidarity-oriented players and co-transmitters of information through *Facebook*, to make visible their micro-donations (1£) and favor the acquisition of equipment and food for farms.	**P**: Billboards in London **Ob**: Making consumers aware so that they can provide funds and help farmers give a proper treatment to their animals, offering them healthy spaces and foodstuffs	**Level 3 AR**: Activated directing the mobile towards a giant screen **Resources**: Fun *app* which makes it possible to interact with a giant screen that shows the images of an apple thrower in a farm **Interaction**: After making the £1 donation, it is allowed to virtually throw an apple to pigs in a farm.	**PS**: Emotion involvement of the consumer towards a proper treatment of farm animals. **ME**: Solidarity-oriented game focused on throwing apples to pigs in a real farm, which seem visibly satisfied, accompanied by music. **BC**: Personal thank-you to each player for their donation. Satisfaction for having contributed to a good cause

Source: elaborated by the authors

4.1.3. Cases where *Tabvertising* is adopted as an advertising strategy

4.1.3.1. Short case description

a) The *Heinz Tomato* company (2011) –through *Blippar*– has created an AR application for mobile devices which includes a digital book of recipes present in all its *ketchup* bottles (https://www.youtube.com/watch?v=GbpISdh0lGU). More precisely, the actual company logotype is utilized as the AR-activating element. In it, the consumer accesses a virtual recipe book where *ketchup* is the main ingredient. Thus, animations and short videos are used to provide a step-by-step explanation of each recipe, revealing new ways of using this product, with the ultimate aim of incorporating it into young people's nutritional habits.

To achieve that aim, they take advantage of the great popularity that cooking programs and contests have recently gained on the different mass media as a persuasive strategy to attract new customers. The consumer interacts with colorful and appealing virtual elements to present the recipes in a suggestive manner, offering the chance to watch explanatory videos for each one of them, where the main ingredient is *Heinz ketchup*. An effort is made to transform the young audience into active consumers, i.e. into 'cooking lovers.'

b) *Kellogg´s* cereal packs add AR contents which can be read using a tablet and/or a smartphone (https://www.youtube.com/watch?t=24&v=8tRF-UESKJ4) (2013). This allows young consumers to access exclusive videos or concerts of their favorite artists, appealing to attractive settings where music acquires prominence. Singers who are relatively popular and successful amongst youngsters are used as a lure, offering not only the opportunity of watching and listening to musical performances of their favorite artists but also the possibility of creating photomontages and having access to videos where tricks about beauty or diet, amongst other things, are explained.

AR consequently enables the young consumers of *Kellogg´s* cereals to interact with their favorite performers from their home, generating the feeling that a personal and emotional link is established with them. Furthermore, the application makes it possible to publish the photomontages carried out on their social network profiles, thus indirectly favoring a promotional strategy which has as its purpose the dissemination both of the brand and of the AR specifically created to that end (Figure 3).

Figure 3. Utilization of *tabvertising* with AR as an advertising strategy

Source: videos of these campaigns on the Internet

c) During its Christmas campaign (2009) (https://www.youtube.com/watch?v=fpDZx5qFrFM), *Coca Cola* incorporated markers into the labels of its bottles so that access could be obtained through AR to a promotional video of this family-centered product. The aim sought was to appeal to consumers' wishes to bring relatives and friends together around a table during that special time of year to share experiences and life stories while drinking a Coca Cola. Consumers can thus use the bottles to watch pleasant scenes accompanied by a catchy tune which reminds them of a Christmas carol. This turns the consumer into a passive viewer of other people's happiness represented in the promotional video activated by markers to access the augmented content.

4.1.3.2. Analysis according to previously defined criteria

The same as in the previous cases, Table 3 specifies the features defining the three selected campaigns which incorporate *tabvertising* as an advertising strategy, taking as a reference the dimensions envisaged in the content analysis instrument:

Table 3. Analysis of cases where *tabvertising* is used as an advertising strategy

Identification (Id), Addressee (A) and Consumer's Role (R)	Placement (P) and objective of persuasive activity (Ob)	Technological aspects	Psychological Aspects
Id: *Heinz Tomato* AR for mobile devices **A**: youngsters and grown-ups **R**: Active viewer who puts into practice the recipes shown with Augmented Reality	**P**: Ketchup bottles of the actual brand **Ob**: Boosting the consumption of ketchup and implicitly promoting a healthy diet	**Level 3 AR**: The logo is utilized as an activator. **Resources**: Access to a virtual recipe book with animations, videos, etc. **Interaction**: The consumer can interact with the book, looking up specific recipes, watching explanatory videos, etc.	**PS**: It uses the great popularity achieved by cooking programs that have dominated the mass media for a long time. **ME**: A virtual colorful environment serves to present the different recipes, where images acquire prominence. **BC**: Focused on the product attributes so that various dishes can be cooked
Id: *Kellogg´s* AR for mobile devices **A**: mainly youngsters **R**: Active viewers who can attend concerts and make photomontages to share them with their contacts on social networks, thus indirectly promoting the brand and the AR application	**P**: Utilization of cereal packs of the actual brand **Ob**: Promoting the consumption of cereals amongst the youngest ones to gain access to the musical performances hidden in their packs	**Level 3 AR**: cereal packs are used to activate AR. **Resources**: It incorporates exclusive performances by musicians who are well-known to children and youngsters, together with videos containing interviews, pieces of advice, etc. **Interaction**: It provides a space to carry out photomontages with their favorite singers.	**PS**: Utilization of famous figures (singers), who offer exclusive shows for consumers at their own home **ME**: Use of music and attractive settings **BC**: Access to exclusive concerts and the possibility of being photographed with their favorite artists, thanks to the photomontages which can be made using the application
Id: *Coca Cola* AR for PC **A**: All kinds of audiences **R**: Viewers who consume audiovisual contents to boost their emotional involvement with the brand, taking advantage of the Christmas period	**P**: The labels present in the Coca Cola bottles **Ob**: Raising consumers' awareness at Christmas through the use of pleasant family images.	**Level 2 AR**: Use of markers to activate AR **Resources**: Access to a promotional video of the brand **Interaction**: The multimedia element becomes activated when the marker is placed in front of the camera.	**PS**: It appeals to the empathy and positive emotions that are typical of Christmas, using the promotional video. **ME**: The family gathered around a table to share experiences and life stories. **BC**: Promotional video activated by means of the marker present in the bottles

Source: elaborated by the authors

4.2. Discussion

AR-assisted advertising makes it possible to add new 'layers' of virtual information and additional elements to the product, projecting its image over extended universes with the help of ancillary multiscreens. The user is informed about a new way of accessing multimedia contents of the advertised brand, thanks to the use of tablets or *smartphones* that facilitate interaction.

The possibilities offered are manifold and thrilling, allowing us to reinvent the advertising format from a fun perspective. Thanks to AR, it is possible to interact with the brand offering a new communication channel with the consumer and boosting content virality through social networks. A new concept of advertising characterized for being more enveloping and attractive to children and youngsters is used to achieve this aim.

It is unquestionable that advertising combined with AR builds virtual bridges through mobile devices seeking to promote consumption especially amongst the youngest ones –familiarized with digital tools– providing advertising campaigns with a high degree of interactivity for the purpose of enriching the consumer's experience and expanding the brand, and offering resources in 3D, games, special promotions, useful information, enjoyment, etc., so that the user can be captivated while simultaneously promoting the product.

It follows from the observation of the cases analyzed that gaming–and consequently the possibility of having fun– is a key element utilized to arouse the interest of youngsters. In addition to the entertainment supplied by recreational applications, some campaigns explicitly or implicitly offer other advantages, such as

useful guidance or information of interest to the user, enjoyment of musical experiences, pieces of advice for a healthy diet, etc.

Confirmation is also obtained of the fact these new and innovative types of advertising resort to a variety of persuasive strategies and motivating elements to attract potential consumers: they firstly seek an emotional involvement, appealing to positive feelings, stimulating the satisfaction derived from having contributed to a good cause or generating a rewarding self-image of users, transforming them into characters with superpowers, giving them the chance to compete with top players, or virtually meeting their favorite singers and interacting with them.

Some of the campaigns analyzed use celebrities to attract their *fans,* fueling the desire to interact with them. They likewise resort to fiction characters that are popular or attractive amongst the young audience, and great care is taken in the design of elements generated with AR.

It also deserves to be highlighted that brands exploit the interest that social networks raise amongst youngsters, offering them the possibility of generating their own contents for the *Web* (images, scores obtained in the game…) that they can share with other Internet users. To this must be added that most campaigns are supported on trends or topics of interest in today's society, such as the *selfies* fashion, the concern about the need to maintain a healthy diet, the defense of animals' rights, etc., sometimes appealing to charity causes or to educational purposes which can conceal the commercial purpose.

All these aspects –interaction possibilities, careful application design, fun, emotional involvement, exploitation of elements and topics that connect with the interests of

potential consumers, etc.– undoubtedly contribute to increase the persuasive potential of these new advertising practices.

Thus, this more playful, sociable, emotional, interactive and multimedia-based (television, mobile devices, etc.) approach to advertising seems closer to young consumers, with the risk of immersing them in virtual magical worlds which are likely to have negative effects if they do not own the strategies required to cope with it. Hence, advertising literacy in this digital context appears as a solution to help them avoid succumbing to an excessive consumption or getting hooked on the fun practices –mediated by technologies– proposed by brands, which can even lead to digital addiction.

5. Conclusions: towards advertising literacy

The advertising literacy aimed at the youngest ones must be oriented to encouraging the acquisition of the knowledge and skills needed to favor responsible consumption, as highlighted by Falcón (2013) and Núñez (2013). It has to revolve around several fundamental axes:

Critical analysis: for youngsters to be able to identify the aspects which transform advertising into a catalyst that boosts consumption and to identify the role played by augmented reality as an effective persuasive strategy

Training in the skills required to favor a comprehensive critical reading of advertising messages together with the strategies utilized by brands, stressing the

intentionality of campaigns enriched with augmented reality resources and identifying the affective-emotional formulas which help empathize with users and fidelize them

Selective consumption: activating their critical and analytical capabilities so that they can discriminate the real attributes of the advertised product, valuing their true usefulness, beyond feeling indulgent with ludic proposals, the games presented by them and the rewarding experiences that they offer in conjunction with the promotions or 3D resources 'seasoned' with augmented reality.

Separating fiction from the reality recreated in these hybrid spaces which seek the promotion of products through their idealization, turning them into the center of attractive fun activities where entertainment is the key to catching the attention of this audience, characterized by their high digital competence, especially skilled at handling mobile devices, but with a risk of being trapped by the apparent dazzle of these increasingly sophisticated technologies.

In short, there is no doubt that the training of young audiences in such highly digitized environments becomes a great challenge both for schools and for society, in an attempt to effectively prevent them from becoming caught and seduced by their appealing charms.

6. References

Álvarez, A. (2014). Perspectiva sobre el contenido de marca. En R. Ron, A. Álvarez & P. Núñez (Coords.). *Bajo la influencia del branded content. Efectos de los contenidos de marca en niños y jóvenes* (pp. 21-31). Madrid: ESIC.

Bringué, X. (2001). Publicidad infantil y estrategia persuasiva: un análisis de contenido. *ZER: Revista de estudios de comunicación, 6*(10). Retrieved from http://www.ehu.eus/ojs/index.php/Zer/article/view/6104/0

Cawood S. & Fiala M. (2008). *Augmented Reality: A Practical Guide*. Denver, USA: Pragmatic Bookshelf.

Del Moral, M.E. (1999). La publicidad indirecta de los dibujos animados y el consumo infantil de juguetes. *Comunicar, 13,* 220-224.

Del Moral, M.E. (2014, October). *Advergames & Edutainment*: Fórmulas creativas para aprender jugando. In F. Revuelta, M.R. Fernández, M.I. Pedrera & J. Valverde (Edit.), *Keynote of the II International Congress of Video Games and Education (CIVE 2013)* (pp. 13-24). Cáceres: Universidad de Extremadura. Retrieved from https://dl.dropboxusercontent.com/u/4318784/Libro_CIVE_13.pdf

Del Moral, M.E. & Fernández, L.C. (2014). "Branding content": con-jugando entretenimiento y publicidad en escenarios lúdicos y emocionales. En R. Ron, A. Álvarez & P. Núñez (Coords.), *Bajo la influencia del branded content. Efectos de los contenidos de marca en niños y jóvenes* (pp. 103-116). Madrid: ESIC.

Del Moral, M.E. & Guzmán, A. (2014). CityVille: collaborative gameplay, communication and skill development in social networks. *Journal of New Approaches in Educational Research*, *3*(1), 11-19. doi:10.7821/naer.3.1.11-19

Del Moral, M.E. & Villalustre, L. (2013). Realidad aumentada: experimentando en el aula en 3D. En R. Ron, A. Álvarez & P. Núñez (Coords.). *Smarthphones y tablets: ¿enseñan o distraen?* (pp. 107- 124). Madrid: ESIC.

Falcón, L. (2013). Publicidad, niños y alfabetización audiovisual: retos y herramientas educativas en la era digital. En R. Ron, A. Álvarez & P. Núñez (Coords.), *Niños, adolescentes y redes sociales. #KON3CTADOS O ATRAPA2?* (pp. 125-147). Madrid: ESIC.

García-Jiménez, A., López de Ayala, M.C., & Catalina, B. (2013). Hábitos de uso en Internet y en las redes sociales de los adolescentes españoles. *Comunicar*, *21*(41), 195-204. http://dx.doi.org/10.3916/C41-2013-19

Huang, S. & Dinu, L.F. (2010, January). More than an advergame: effects of advergame type and presence of spokes-characters on advergame effectiveness. In *American Academy of Advertising. Conference. Proceedings (Online)* (pp. 65-66). Minneapolis, USA: American Academy of Advertising.

Okazaki, S., & Yagüe, M. J. (2012). Responses to an advergaming campaign on a mobile social networking site: An initial research report. *Computers in Human Behavior*, *28*(1), 78-86. doi:10.1016/j.chb.2011.08.013

Mallinckrodt, V., & Mizerski, D. (2007). The effects of playing an advergame on young children's perceptions, preferences, and requests. *Journal of Advertising*, *36*(2), 87-100. http://dx.doi.org/10.2753/JOA0091-3367360206

Martínez, J. (2003). *Branded content* o *advertainment.* ¿Un nuevo escenario para la publicidad audiovisual?. En N. Mínguez y N. Villagra (eds.). *La comunicación. Nuevos discursos y perspectivas (*pp. 57-62). Sevilla: Edipo.

Martínez, S., Quintas, N. & San Juan, A. (2012). *Tabvertising*: nuevas formas publicitarias en las tabletas digitales. *Pensar la publicidad, 6(2)*, 473-487. http://dx.doi.org/10.5209/rev_PEPU.2012.v6.n2.41245

Nelson, M. R., & Waiguny, M. K. (2012). Psychological Processing of In-Game Advertising and Advergaming: Branded Entertainment or Entertaining Persuasion? In L.J. Shrum (ed.) *Psychology of entertainment media: Blurring the lines between Entertainment and persuasion* (pp. 93-146). New York: Routledge.

Núñez, P. (2013). La nueva generación de nativos digitales y la necesidad de una buena alfabetización digital. En R. Ron, A. Álvarez & P. Núñez (Coords.). *Smarthphones y tablets: ¿enseñan o distraen?* (pp. 127- 137). Madrid: ESIC.

Núñez, P., Falcón, L., Figuerola, H. & Canyameres, M. (2015). Alfabetización publicitaria: el recuerdo de la marca en los niños. En A. Álvarez & P. Núñez (Coords.). *Claves de la comunicación para niños y adolescentes. Experiencias y reflexiones para una comunicación* constructiva (pp. 111-131). Madrid: Fragua.

Liao, T. (2015). Augmented or admented reality? The influence of marketing on augmented reality technologies. *Information, Communication & Society*, *18*(3), 310-326. http://dx.doi.org/10.1080/1369118X.2014.989252

Ramos, M. (2006). Cuando la marca ofrece entretenimiento: aproximación al concepto de advertainment. *Questiones Publicitarias, 11*(1), 33-49. Retrieved from http://www.maecei.es/pdf/n11/articulos/cuando_la_marca_ofrece_entretenimiento_a proximacion_al_concepto_de_advertainment.pdf

Rifon, N. J., Taylor Quilliam, E., Paek, H. J., Weatherspoon, L. J., Kim, S. K., & Smreker, K. C. (2014). Age-dependent effects of food advergame brand integration and interactivity. *International Journal of Advertising*, *33*(3), 475-508. doi 10.2501/IJA-33-3-475-508

Ruíz, S. & Polo, D. (2012). La realidad aumentada como nuevo concepto de la publicidad online a través de los *smartphones*. *Razón y Palabra*, *80.* Retrieved from http://www.razonypalabra.org.mx/N/N80/V80/02_RuizPolo_V80.pdf

Selva, D. (2009). El videojuego como herramienta de comunicación publicitaria: una aproximación al concepto de advergaming. *Comunicación: Revista Internacional de Comunicación Audiovisual, Publicidad y Estudios Culturales*, 7, 141-166.

Smith, A. D. (2007). Exploring advergaming and its online advertising implications. *International Journal of Business Information Systems*, *2*(3), 298-311. http://dx.doi.org/10.1504/IJBIS.2007.011981

Steffen, C., Mau, G. & Schramm-Klein, H. (2013). Who Is the Loser When I Lose the Game? Does Losing an Advergame Have a Negative Impact on the Perception of

the Brand? *Journal of Advertising*, *42*(2-3), 183-195. doi10.1080/00913367.2013.774598

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. http://dx.doi.org/10.1080/00913367.2013.774598

Tur-Viñes, V. & Segarra-Saavedra, J. (2014). *Branded content* y *storytelling*. El arte de crear contenidos y contar historias. En R. Ron, A. Álvarez & P. Núñez (Coords.). *Bajo la influencia del branded content. Efectos de los contenidos de marca en niños y jóvenes* (pp. 117-134). Madrid: ESIC.

Waiguny, M. K., Nelson, M. R., & Terlutter, R. (2012). Entertainment matters! The relationship between challenge and persuasiveness of an advergame for children. *Journal of Marketing Communications*, *18*(1), 69-89. http://dx.doi.org/10.1080/13527266.2011.620766

ANNEX

Instrument for systematizing content analysis in advertising campaigns with AR –on the basis of the works written by Del Moral (1999), Bringué (2001), and Cawood & Fiala (2008)

1. Identification of the advertising product:

- Advertising brand, requirements to interact (mobile, computer/PC, *tablet…*).
- Primary addressee: children, youngsters, general public, etc.

2. Brand placement and presentation: public space (marquees/shelters, street, etc.), at the household, product container, etc.

3. Advertising strategy adopted: advergaming, online games and social networks, tabvertising, ARvertising, etc.

4. Objective of persuasive activity: explicit and implicit

5. Psychological aspects:

- *Persuasive strategy utilized*: (based on originality/creativity, empathy, the guarantee provided by a brand, conviction, etc.)
- *Motivating elements*: characters and/or protagonists, color, recreated scenarios, surprise elements
- *Benefits on which persuasive action is supported:* What does it offer to the consumer?: gaming sessions, prizes, special promotions, etc.: focused on individual play; centered on product attributes; focused on competitive play; centered on fun; focused on manual hand manipulation, etc.

6. Technological aspects:

1) AR level: L1=hyperlinks in the physical world; L2=AR utilizing markers; L3=AR by means of objects and images; and L4= augmented vision)
2) Combination of digital resources and/or technologies (QR codes, social networks, etc.)
3) Interaction favored by the augmented content

7. Consumer's role/s: player; viewer; both; co-transmitter of information through the networks, etc., according to the type of interaction requested from the user and associated with the emotional involvement of the latter depending on the role adopted