I Think it's Interesting, but Irritating: Mobile Phones as an Advertising Medium Aimed at Spanish Children

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Following McLuhan's reflections regarding the influence of the medium on how users perceive messages, this study analyses minors' perception of media and screens, with special emphasis on smartphones. The results are based on a survey of 1,070 children aged 10-14 from Spain. According to the study, children consider mobile phones as the primary medium for receiving advertising, as well as the one that annoys them the most with commercial messages. Despite their interactive nature, respondents found outdoor advertising and television more entertaining and amusing than mobile phones, yet they considered television to be the most reliable medium. Finally, they highlighted the personalised aspect of smartphones.

Keywords: children, mobile phone, communication media, advertising medium, television.

Siguiendo las reflexiones de McLuhan sobre la influencia del medio en la percepción de los mensajes por parte de los usuarios, este estudio analiza la percepción de los menores sobre los medios y las pantallas, con especial atención a los smartphones. Los resultados se basan en una encuesta realizada a 1.070 niños españoles de entre 10 y 14 años. Según el estudio, los niños consideran que el móvil es el principal medio para recibir publicidad, así como el que más les molesta con mensajes comerciales. A pesar de su carácter interactivo, los encuestados consideran que la publicidad exterior y la televisión son más entretenidas y divertidas que los teléfonos móviles, aunque consideran que la televisión es el medio más fiable. Por último, destacaron el aspecto personalizado de los smartphones.

Palabras clave: niños, teléfono móvil, medios de comunicación, soporte publicitario, televisión.

The advertising sector is undergoing a period of change and uncertainty (Taylor and Carlson, 2021) as it searches for alternatives, the effectiveness of which depends more on the quality of the message than on the quantity of the impact achieved, especially among an audience as demanding as minors in terms of communication and media, as they are highly important for the goods and services market (Lichy *et al.*, 2022). Advertising investment has shifted toward media and platforms where the user is located (Ditrendia, 2021; Infoadex, 2021), which is why the mobile phone has become a key medium in advertising campaigns.

When we refer to mobile advertising, we include all actions and formats that the user is able to receive through the mobile screen (MMA, 2014). The adaptation of digital communication models to this mobile medium is categorised as advertising specifically designed to take advantage of all the opportunities offered by this device (personalisation, geolocation, interactivity, etc.). Thus, on the one hand, we have the reproduction of formats and conventional models of advertising on mobile phones, or in other words, a conception of the mobile device as just another medium, and on the other hand, we find the exploration of innovative models and formats that are focused on taking advantage of the technological specificity of these new devices (location, contextualised information, ubiquitous social connectivity, etc.), as well as on the ease of synergy between platforms, and most of all on exploiting the possibilities of mobile devices for the effective segmentation of users (Martínez and Aguado, 2014).

Unlike mass media, mobile phones are characterised by their portability, interactivity, immediacy, and omnipresence (Gómez-Tinoco, 2012). Mobile advertising must adapt to the dynamic nature of this device, and according to Atkinson (2013), it is no longer just a matter of adapting the advertising message to mobile communication, but also of integrating the consumer and developing strategies that are more digital, participatory, and less intrusive (Wang *et al.*, 2016). A review by Maseeh *et al.* (2021) of the main trends in academic research on mobile phone advertising points to five variables consistently identified as key factors in this context: personalisation, entertainment, credibility, news value, and annoyance. The entertainment variable is especially important for younger users in the mobile context (Feijoo *et al.*, 2021). Thus, when advertising is presented in an entertaining scenario, such as online games, minors tend to avoid the adverts (Martí-Pellón and Saunders, 2015; Martínez *et al.*, 2013).

In examining the reviews by Maseeh *et al.* (2021) and Jebarajakirthy *et al.* (2021), user attitude is a key variable in describing the relationship between minors and mobile advertising. As such, this study assumes that the prior attitude toward a medium or platform also affects how minors interact with the advertisements displayed. In effect, the theory offered by McLuhan *et al.* (1987), which states that "the medium is the message", has been revived.

The integration of McLuhan's theory into advertising implies a profound understanding of how different media can be used to shape the public perception of a brand or product. In the current digital era, where the quantity and variety of available media have expanded exponentially, this theory becomes even

more relevant. Advertisers must consider not only the content of the message but also how the chosen platform for its dissemination will affect its reception.

For example, the use of interactive media such as mobile applications can transform advertising into a more participatory experience, increasing consumer engagement with brands and ads. In a world where advertising increasingly seeks personalization and emotional connection with the consumer, it is crucial understanding how different media can be used to influence ad perception and behaviour. This also invites deeper reflection on the cultural and social impact of media on understanding the world.

LITERATURE REVIEW

The findings of the meta-analysis by Maseeh *et al*. (2021), which analysed 20 years of research on mobile advertising, show that attitude towards receiving mobile advertisements is significantly and positively associated with customers' intention to receive mobile advertisements. Personalization, entertainment, and credibility are positively associated with customer attitudes towards receiving mobile advertisements, while irritation is negatively associated with it. Their analysis reveals that the factors that have the most positive influence on consumer attitude are entertainment and credibility, while the impact of personalization is minimal, in contrast to previous findings such as those of Xu (2006), who found that personalization was one of the determining factors in users' positive attitude towards receiving mobile advertising.

Gao and Zang (2016) emphasized that minors are the most common users of mobile devices and also more likely to view mobile advertising. This demonstrates that this age group is among those who constitute the largest part of the target audience for mobile advertising (Lee *et al*., 2017; Kim and Han, 2014), along with Generation Z. As previously was the case with online advertising (Andersen *et al*., 2008; Sandberg, 2011), this new generation of users become irritated when they receive adverts on their devices (Martínez *et al*., 2013; Martínez, 2019), which generates negative attitudes toward advertising (Maseeh *et al*., 2021; Jebarajakirthy *et al*., 2021). This stance is softened by perceiving a certain added value in advertising content, either in the form of entertainment or other benefits such as offers, promotions, discounts or access to exclusive products (Feijoo and Sádaba, 2022; Martí *et al*., 2013).

An experiment conducted by Feijoo *et al*. (2020) shows that the exposure of minors to advertising when browsing on mobile phones is higher than in media such as television, which may also lead to the medium being perceived as saturated with commercial messages, thereby causing the user to have a negative attitude. Curiously, the level of use and familiarity that minors have with a specific platform (YouTube, Instagram, TikTok) has a corresponding impact on the credibility they grant to these sites as a source of advertising: the more they use a platform, the more they trust it (Feijoo and Sádaba, 2021). The degree of trust, as well as their attitude toward the message, are key variables in children's advertising awareness (Rozendaal *et al*., 2016).

Certain trends suggest that minors have adopted a much more negative stance toward digital advertising than all other generations, especially toward mobile banner adverts (Kantar Millward Brown, 2017). Regarding the behaviour intention expressed towards such mobile advertising, the most frequent reaction among young people is often indifference (Feijoo and Sádaba, 2021). A minority acknowledged some kind of interaction, even if it was simply to close the ads. Children report sensation or emotional processing ("it does not appeal to me", "I do not like it", "it is not entertaining") as the causes motivating their interaction, rather than rational advertising literacy.

This is not the case with adults, an example of which is a study by Harms *et al.* (2019), which has shown that consumers actually prefer banners to article-style, native adverts in terms of attitude and credibility. Children are more tolerant of advertising that tries to identify them with real personalities, such as those who appear in influencer marketing (Moral *et al.*, 2016; Feijoo and Sádaba, 2021; Núñez-Gómez *et al.*, 2020; Fernández-Gómez *et al.* 2021). Indeed, message personalisation is a quality that minors value in mobile phone advertising (Feijoo and Sádaba, 2022).

However, it is also crucial to consider the ethical and privacy concerns that arise with the use of personal data in mobile advertising (Ullah *et al.*, 2023). The collection and analysis of personal data for ad personalization should be done transparently and respecting the user's privacy. Consumers are increasingly aware of their privacy rights, and their trust may be negatively impacted if they perceive that their personal information is being used inappropriately.

The new generations demand new formats, novel messages, and values, especially on the mobile phone, which can be achieved by creating adaptable content designed specifically for the smaller screen, such as videos, musical narratives, and messages that are synthesised and immersive, which are associated formats and proposals that offer experiential value (Boyd, 2014; Burroughs, 2017; Castelló-Martínez and Tur-Viñes, 2020; Pires *et al.*, 2021).

The advertising format is another variable that influences the perception of the message (Feng *et al.*, 2016; Harms *et al.*, 2019), which can help to foster a positive view of the content by the audience.

However, preferences when looking at screens tend to differ between males and females, depending on the social concerns of each gender (Coyne and Archer, 2004; Hargreaves and Tiggemann, 2004). Thus, one of the main lines of research linking gender and the media addresses differences in consumption. Moreover, it is common in the field of video games to find research that classifies games into "blue" and "pink" (Márquez, 2013), and in the digital context this trend of differentiating use routines according to gender continues: while boys spend more time on gaming apps and YouTube when using the mobile phone, girls prefer social networks, especially Instagram and TikTok (Feijoo *et al.*, 2020).

Age is another determining factor in children's relationship with advertising consumption, especially when analysing the level of credibility and trust placed in advertisements: as children grow older, they become more sceptical of such messages (Chu *et al.*, 2014; Robertson and Rossiter, 1974). Understanding the persuasive intent of advertising seems to be achieved around the age of eight

to ten (Koslow, 2000). However, there is no guarantee that they will have an especially deep insight into the motives of advertisers at that age (Ali and Blades, 2014).

In the mobile context, another aspect that seems to introduce differences in advertising consumption is screen ownership (Feijoo *et al.*, 2020; Feijoo and Sádaba, 2022). In general, socioeconomic status is a variable that has been widely studied in the Latin American context, where it has been observed that the new screens such as those of mobile phones have a more homogeneous penetration regardless of socioeconomic status (Trucco and Palma, 2020). Nevertheless, even though this is not usually a recurrent segmentation variable in the Spanish context, it will also be taken into account in this study given the increasing social inequality in this country (Ayala and Cantó, 2022).

The scientific discussion on linking children to digital and integrated marketing activity is still in its infancy compared to research that has examined other media such as television (Jans *et al.*, 2017; Oates *et al.*, 2014; Opree *et al.*, 2020). This study aims to fill this gap.

The need for research is especially relevant in the Latin American context, where investigation has been rather scarce (Maseeh *et al.*, 2021; Jebarajakirthy *et al.*, 2021). One might argue that in light of the scientific contributions made to date, there are still areas in which research may be able to shed light on the issue in order to better understand the role played by the mobile phone as an advertising medium, as well as the attitudes and reactions it generates within younger users. This is a screen that has been described in terms of its ability to deliver messages that are interactive, entertaining, immersive, personalised, and trustworthy. Consequently, it is the key to testing whether or not children perceive it in this way in today's media ecosystem. Thus, the results herein provide important information for advertisers and agencies that target children in their communications through mobile devices for the purpose of achieving effective planning in their online advertising.

METHODOLOGY

The aim of this research is to gain knowledge regarding the positioning that children from 10-14 years of age give to the mobile phone as an advertising medium by comparing it with other media and platforms that also broadcast or display advertising messages (television, radio, the computer, and outdoor adverts), along with its presence in the consumption routines of the public under study.

For this purpose, self-administered online surveys were carried out with children between 10 and 14 years of age who live in Spain. A total of 1,070 individuals participated, with a confidence rate of 95% and a +/-3% margin of error. The sampling procedure was multi-staged and stratified, and it included proportional allocation using four geographical areas as a first stratum, which were aggregated ad hoc (following the classification of NUT areas used by the EU), along with a second level of stratification according to the socioeconomic level

of the families (low, middle, and high). The final selection of the individuals to be surveyed was made according to cross quotas of gender and age. The fieldwork took place between April and June of 2022.

Table 1. Summary description of the sample

	Minors (N=1,070)
Age	10 to 12 years old: 58.2% (623) 13 to 14 years old: 41.8% (447)
Gender	Boys: 51.9% (555) Girls: 48.1% (515)
Socioeconomic status	Low: 30.9% (331) Middle: 50.3% (538) High: 18.8% (201)
Screens owned by children	PC: 18.5% (198) Laptop: 44.8% (479) Tablet: 58.4% (625) Smartphone: 76.7% (821) TV: 31.3% (335) None: 7.9% (84)

Source: Own elaboration.

The following research questions were formulated in order to answer the stated objective:

RQ 1- What characteristics and aspects of the mobile phone as an advertising medium do Spanish children value compared to other media?

RQ 2- Are there differences in the positioning given to each media according to the age, gender, and socio-economic group of the minors surveyed?

The novelty of this study lies in the fact that in Spain there are no current or similar studies that have examined mobile phones as an advertising medium, compared to more traditional media that are more familiar to children, such as television.

Given the scant attention paid to the consumption of advertising by minors in digital environments (Jans *et al.*, 2017), this study has taken an exploratory approach that seeks to shed light on the attitude of children toward the advertising they consume through diverse online and offline media, but with a special focus on mobile phones. For this reason, within the context of a larger survey, a series of questions were designed for this purpose, taking as a reference the characteristics and aspects that previous literature had highlighted and measured in mobile advertising as follows: level of advertising exposure (Feijoo and Sádaba, 2022, 2021; Küster *et al.*, 2017); degree of annoyance and/or irritation caused by advertising (Maseeh *et al.*, 2021; Tsang *et al.*, 2004); the entertainment it arouses (Maseeh *et al.*, 2021; Tsang *et al.*, 2004); level of desire or pleasure in receiving advertisements (Feijoo and Sádaba, 2022; Küster *et al.*, 2017); personalisation of the message (Maseeh *et al.*, 2021; Xu, 2006); level of trust (Maseeh *et al.*, 2021; Tsang *et al.*, 2004); and the desire to know more about the promoted product (Küster *et al.*, 2017).

The questions were formulated in hierarchical fashion as closed-ended questions that allowed the participants to organise and rank different options in a specific order (Hernández *et al.*, 2010). The aim was for children to evaluate the media —street location or shopping centre (outdoor advertising), television, mobile phone, computer, and radio— in relation to the characteristics outlined above. This type of closed-ended question was chosen because priority was given to revealing the positioning that minors give to media as advertising channels; it was also considered that this type of question would be pleasant and dynamic for the minors.

The questions were specified in the survey as follows:

Table 2. Structure of the questions used in the survey

Question formulation		
Classify the following media by ranking in first place the one in which...	*You watch the most advertising*	*...and by ranking in last place the one that has the least effect in these aspects*
	The advertising annoys you the most	
	The advertising is the most entertaining	
	You most like to watch the advertising	
	You feel that the advertising is more targeted at your tastes and interests	
	You trust the advertising the most	
	After seeing an advertisement, you have the strongest desire to learn more about the product	
Options to classify street/shopping centre; television; the mobile phone; the computer; radio		

Source: Own elaboration.

In this particular study, we present a descriptive analysis of the variables described with the aim of addressing the research objectives outlined. Additionally, a bivariate analysis is also considered, taking into account demographic variables such as age, gender, and socioeconomic status to identify and understand differences among different population groups. To determine the statistical relevance of the observed differences in responses across these intersections, we used the independence test based on Pearson's Chi-square statistic to determine the degree of association between two nominal variables. In all cases, we established that the p-value to reject the null hypothesis of the tests conducted would be <0.05. When this occurs, the differences will be reported as significant, and the corresponding cells will be shaded in Table 3 (pp. 13-15) to highlight them.

In order to safeguard the integrity of the participants and researchers of the study, authorisation to collect the information was requested from the guardian of each child by way of a signature on an informed consent document, previously validated by the Ethics Committee of the university to which this research has been assigned (XXXXX University), which also reviewed and approved the methodological design of the project.

RESULTS

For this research, we used the categories of analysis of the mobile phone as a benchmark from the point of view of its advertising usefulness, as indicated by previous literature (Feijoo and Sádaba, 2022; 2021; Jebarajakirthy *et al.*, 2021; Maseeh *et al.*, 2021; Tsang *et al.*, 2004; Xu, 2006). Moreover, we studied these categories among underage users, not only with mobile phones, but also on other platforms and media where advertising is frequently displayed.

These variables are significantly related to each other, or in other words, Pearson's chi-square test showed a relationship of dependence ($p < 0.05$) among all the variables defined for this analysis (exposure, annoyance, entertainment, tastes, personalisation, trust, and a desire to know the product) in the responses related to first place.

POSITIONING OF THE MEDIA AS A CHANNEL FOR ADVERTISING

Regarding the first study variable, which is the level of advertising consumption, more than 90% of the children surveyed indicated that the mobile phone (47.3%) and television (46.4%) are the media through which they see the most advertising.

The computer and outdoor adverts (street and/or shopping centres) were ranked first by less than 10% of the sample, while the percentage who selected radio was anecdotal, probably due to the fact that children are exposed to this medium very infrequently (e.g. when driving with their parents in the car).

It is also interesting to observe the media that was ranked second by the participants: a significant percentage of the children once again pointed to television (31.5%) and mobile phones (28.0%). It should not be forgotten that television, and more recently mobile phones, are well known for being saturated with advertising.

With regard to another type of digital advertising, such as that received through the computer, after mobile phones and television, this is the medium through which children feel they receive the most advertising (nearly 26% selected it as their first or second choice).

The media through which children are most annoyed by advertising depends to a large extent on the previous variable: 63.7% indicated that the medium through which they are most annoyed by advertising is, by far, the mobile phone. Television generates much less annoyance compared to the mobile phone, despite being chosen as the second most annoying medium (21.4%). Digital advertising through the computer was the most annoying, as it took second place in the responses (35.7%). Outdoor advertising and radio advertising, on the other hand, were the least annoying.

Figure 1. Media ranking according to the amount of advertising viewed and the annoyance generated
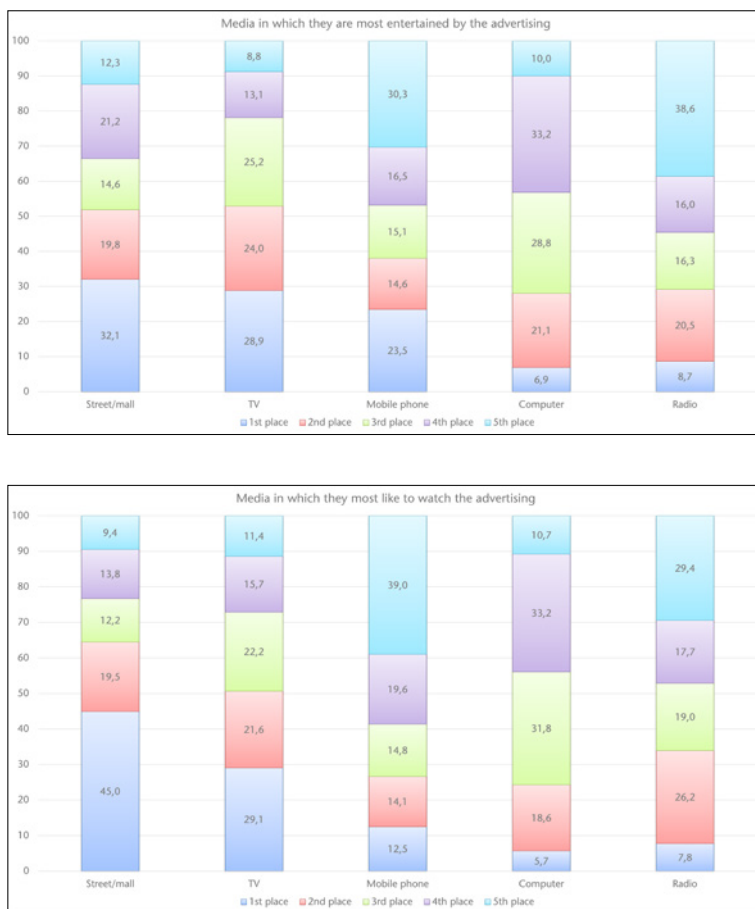

Source: Own elaboration.

A recurring variable of study when addressing the relationship between advertising and children is the level of entertainment and amusement it provides. In this study, it was found that outdoor advertising was the medium most cited by children as their first choice in this category (32.1%), ahead of television (28.9%) and mobile phones (23.5%). It is necessary to highlight the fact that advertising messages on mobile phones, despite being an interactive platform, do not produce a strong perception of entertainment. In fact, if we look at the results obtained in the responses related to the second choices, a higher percentage of children chose radio over mobile phones, and more than 30% chose the mobile phone as the medium through which they are least entertained by advertising.

In direct relation to the previous observations, nearly half of the sample (45.0%) chose streets/shopping centres as the locations where they most like to

see commercial messages, and secondly, television (29.1%). The mobile phone came in third place, selected by 12.5% of the respondents, far behind the statistics achieved by television and outdoor advertising. Additionally, the mobile phone is the medium that in last place (39.0%).

Figure 2. Media rank according to how entertaining they perceive advertising to be and the medium through which they most like to consume it

Source: Own elaboration.

In terms of personalisation of the advertising message, children acknowledged that digital advertising is the medium that offers them messages most in line with their interests. Thus, 60.2% selected the mobile phone as the medium through which they feel they receive the most advertising consistent with their tastes, well ahead of television and outdoor advertising. In second place, nearly 50% of the sample chose the computer and, once again, the mobile phone was selected by only 19.1%.

Another variable of interest when studying a communication medium such as an advertising channel is the level of trust perceived by the audience, which is automatically transferred to the advertising message that is broadcast. In this case, nearly half of the sample (43.2%) selected television as the medium they trust the most, followed by advertising displayed on/in the street/shopping centres (27.2%). Only 16.1% selected the mobile phone as the platform they trust the most for receiving advertisements, while 29.7% rated the mobile phone as one of the least trusted media, which is comparable to radio. Upon observation, it seems that the statistics associated with the variables of enjoyment and taste show a pattern that is similar to the results of the trust variable.

Figure 3. Media ranking according to the affinity and trust generated by advertising

Source: Own elaboration.

Finally, we wanted to position the media according to the one that arouses the greatest desire in children to become familiar with the promoted product. In this case, the preferred media chosen were the mobile phone (37.7%) in first place, and television in second place (37.6%). This could be due to the perception of the mobile phone as a platform that broadcasts messages in line with users' tastes. It can also be confirmed that in the selections for second place, 27.9% placed advertising received by computer as the medium that generates the most interest in obtaining more information about the advertised product. In connection with this variable, the medium that was rated the worst was radio, probably due to the fact that the generation that participated in this study has a preference for audio-visual consumption.

Figure 4. Media ranking according to the interest that advertising awakens in children to learn about the promoted product
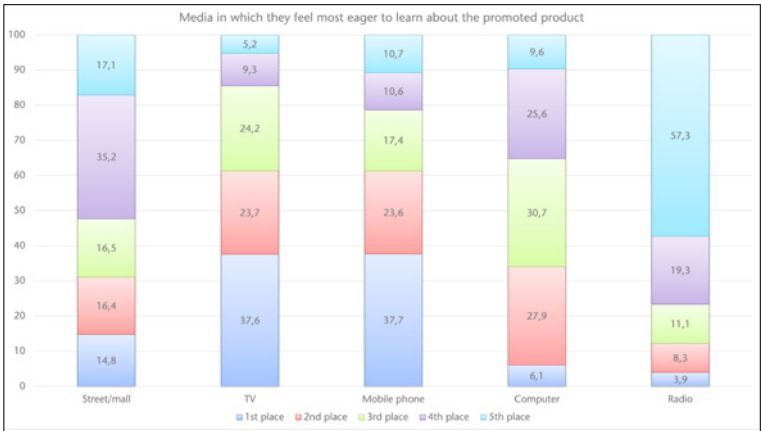
Source: Own elaboration.

Differences by Age, Gender, and Socioeconomic Group

In order to study the significant differences implied by the socio-demographic variables defined, the statistics obtained from the respondents' answers to their first choice (1st place) were used as a reference.

Table 3. Preferences segmented by age, gender, and SEG of the minors

Media in which children…		AGE		Gender		SEG			TOTAL
		10-12	13-14	Boy	Girl	Low	Middle	High	
watch the most advertising	Street/mall	36	14	27	23	16	24	10	50
		5.8%	3.1%	4.9%	4.5%	4.8%	4.5%	5.0%	4.7%
	TV	287	166	245	208	132	237	84	453
		46.1%	37.1%	44.1%	40.4%	39.9%	44.1%	41.8%	42.3%
	Mobile phone	262	235	235	262	166	245	86	497
		42.1%	52.6%	42.3%	50.9%	50.2%	45.5%	42.8%	46.4%
	Computer	32	21	34	19	14	23	16	53
		5.1%	4.7%	6.1%	3.7%	4.2%	4.3%	8.0%	5.0%
	Radio	6	11	14	3	3	9	5	17
		1.0%	2.5%	2.5%	0.6%	0.9%	1.7%	2.5%	1.6%
are most annoyed by the advertising	Street/mall	17	3	10	10	10	5	5	20
		2.7%	0.7%	1.8%	1.9%	3.0%	0.9%	2.5%	1.9%
	TV	144	85	121	108	64	112	53	229
		23.1%	19.0%	21.8%	21.0%	19.3%	20.8%	26.4%	21.4%
	Mobile phone	375	307	339	343	221	347	114	682
		60.2%	68.7%	61.1%	66.6%	66.8%	64.5%	56.7%	63.7%
	Computer	58	39	62	35	27	56	14	97
		9.3%	8.7%	11.2%	6.8%	8.2%	10.4%	7.0%	9.1%
	Radio	29	13	23	19	9	18	15	42
		4.7%	2.9%	4.1%	3.7%	2.7%	3.3%	7.5%	3.9%

Media in which children…		AGE		Gender		SEG			TOTAL
		10-12	13-14	Boy	Girl	Low	Middle	High	
find the advertising to be the most entertaining	Street/mall	202	141	171	172	113	171	59	343
		32.4%	31.5%	30.8%	33.4%	34.1%	31.8%	29.4%	32.1%
	TV	178	131	166	143	90	154	65	309
		28.6%	29.3%	29.9%	27.8%	27.2%	28.6%	32.3%	28.9%
	Mobile phone	150	101	126	125	89	121	41	251
		24.1%	22.6%	22.7%	24.3%	26.9%	22.5%	20.4%	23.5%
	Computer	41	33	42	32	14	44	16	74
		6.6%	7.4%	7.6%	6.2%	4.2%	8.2%	8.0%	6.9%
	Radio	52	41	50	43	25	48	20	93
		8.3%	9.2%	9.0%	8.3%	7.6%	8.9%	10.0%	8.7%
like to watch the advertising the most	Street/mall	271	210	242	239	162	233	86	481
		43.5%	47.0%	43.6%	46.4%	48.9%	43.3%	42.8%	45.0%
	TV	194	117	166	145	80	162	69	311
		31.1%	26.2%	29.9%	28.2%	24.2%	30.1%	34.3%	29.1%
	Mobile phone	77	57	69	65	51	56	27	134
		12.4%	12.8%	12.4%	12.6%	15.4%	10.4%	13.4%	12.5%
	Computer	37	24	37	24	15	37	9	61
		5.9%	5.4%	6.7%	4.7%	4.5%	6.9%	4.5%	5.7%
	Radio	44	39	41	42	23	50	10	83
		7.1%	8.7%	7.4%	8.2%	6.9%	9.3%	5.0%	7.8%
feel that the advertising is more targeted at their interests	Street/mall	61	33	50	44	37	45	12	94
		9.8%	7.4%	9.0%	8.5%	11.2%	8.4%	6.0%	8.8%
	TV	123	62	101	84	53	96	36	185
		19.7%	13.9%	18.2%	16.3%	16.0%	17.8%	17.9%	17.3%
	Mobile phone	351	293	316	328	210	310	124	644
		56.3%	65.5%	56.9%	63.7%	63.4%	57.6%	61.7%	60.2%
	Computer	70	47	74	43	25	70	22	117
		11.2%	10.5%	13.3%	8.3%	7.6%	13.0%	10.9%	10.9%
	Radio	18	12	14	16	6	17	7	30
		2.9%	2.7%	2.5%	3.1%	1.8%	3.2%	3.5%	2.8%

Media in which children…		AGE		Gender		SEG			TOTAL
		10-12	13-14	Boy	Girl	Low	Middle	High	
feel the most trust in receiving and consuming advertisements	Street/mall	166	125	141	150	105	130	56	291
		26.6%	28.0%	25.4%	29.1%	31.7%	24.2%	27.9%	27.2%
	TV	275	187	254	208	144	242	76	462
		44.1%	41.8%	45.8%	40.4%	43.5%	45.0%	37.8%	43.2%
	Mobile phone	95	77	86	86	50	82	40	172
		15.2%	17.2%	15.5%	16.7%	15.1%	15.2%	19.9%	16.1%
	Computer	36	21	35	22	16	32	9	57
		5.8%	4.7%	6.3%	4.3%	4.8%	5.9%	4.5%	5.3%
	Radio	51	37	39	49	16	52	20	88
		8.2%	8.3%	7.0%	9.5%	4.8%	9.7%	10.0%	8.2%
feel more eager to learn about the promoted product	Street/mall	97	61	73	85	48	82	28	158
		15.6%	13.6%	13.2%	16.5%	14.5%	15.2%	13.9%	14.8%
	TV	245	157	215	187	122	203	77	402
		39.3%	35.1%	38.7%	36.3%	36.9%	37.7%	38.3%	37.6%
	Mobile phone	218	185	197	206	133	194	76	403
		35.0%	41.4%	35.5%	40.0%	40.2%	36.1%	37.8%	37.7%
	Computer	36	29	43	22	19	34	12	65
		5.8%	6.5%	7.7%	4.3%	5.7%	6.3%	6.0%	6.1%
	Radio	27	15	27	15	9	25	8	42
		4.3%	3.4%	4.9%	2.9%	2.7%	4.6%	4.0%	3.9%
TOTAL		623	447	555	515	331	538	201	1070
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

*Shaded data indicate a significant difference (p<0.05) in the results obtained between the different categories of analysis for each variable (age, gender, and GSE).

Source: Own elaboration.

DIFFERENCES ACCORDING TO THE AGE OF USERS

Firstly, the age variable was found to be dependent with regard to the following study variables, as the chi-square tests showed a dependency relationship: level of exposure to advertising χ^2 (4, N = 1,070) = 18.779, p < .05; annoyance χ^2 (4, N = 1,070) = 13.000, p < .05; and personalisation of the advertising message χ^2 (4, N = 1,070) = 10.740, p < .05.

As shown in Table 3, a higher proportion of older respondents (13-14 years old) perceive that the medium through which they receive the most advertising is the mobile phone (52.6%). However, younger respondents (10-12 years of age) tend to indicate that they are more exposed to advertising input from television (46.1%). Moreover, taking into account differences by age, children from 10 to 12 years old are more likely than children from 13 to 14 years old to perceive a greater presence of outdoor messages.

On the other hand, the age factor indicates that younger children generally tend to be less tolerant of advertising in all media, with the exception of mobile phones, whereas a higher percentage of 13-14 year olds tend to rate the mobile as the platform they find most annoying for receiving advertisements (68.7%). This trend might be explained by the fact that older children make greater use of mobile phones.

Finally, segmentation by age shows that as children grow older, a higher percentage values the personalisation of mobile advertising. Consequently, 65.5% of the children between 13 and 14 years of age say that the mobile phone is the medium that offers messages more related to their interests, compared to 56.3% of children between 10 and 12 years of age, who tend to perceive television as the medium that is more in line with their tastes.

DIFFERENCES ACCORDING TO GENDER

The gender of the user also implies significant differences in the results obtained. Chi-square tests showed a dependency relationship between the following study variables: χ χ^2 (4, N = 1,070) = 14.697, p < .05 (exposure*gender); χ^2 (4, N = 1,070) = 9.033, p < .05 (personalisation*gender); χ^2 (4, N = 1,070) = 11.797, p < .05 (desire to know the product*gender).

Girls tend to view more advertising on mobile phones than boys (50.9% vs. 42.3%), while boys are more likely to watch TV than girls (44.1% vs. 40.4%). Significant differences were also observed in relation to exposure to advertising on the computer and radio, with a higher percentage of boys than girls.

With regard to the variable of personalisation of advertising, as the mobile phone is the device through which they generally feel they receive advertising that is more segmented, girls chose it more than boys (63.7% compared to 56.9%). Males are more likely than females to feel that television and computers offer advertising messages related to their interests.

Regarding the medium that arouses more curiosity about the promoted product, girls have a greater preference than their male counterparts for the mobile (40.0% vs. 35.5%) and outdoor advertising (16.5% vs. 13.2%), while males have a greater inclination toward television and computers, which is in line with the results presented in the previous paragraph.

DIFFERENCES ACCORDING TO THE SEG OF THE USER'S HOUSEHOLD

It was also confirmed that there is an association between the socio-economic group of the household to which the respondent belongs and the variables of

annoyance, taste, and trust in advertising: χ^2 (8, N = 1,070) = 20.892, p < .05 (annoyance*SEG); χ^2 (8, N = 1,070) = 17.355, p < .05 (tastes*SEG); χ^2 (8, N = 1,070) = 15.881, p < .05 (trust*SEG).

It is interesting to note that children belonging to households in the high SEG reported in greater numbers than the other groups that the medium through which they are most bothered by advertising is television (26.4% compared to 19.3% for the low SEG and 20.8% in the middle SEG); however, they are the most tolerant regarding mobile advertising. Thus, the low SEG indicated to a greater extent than the others that the advertising that irritates them the most is mobile advertising (66.8% compared to 56.7% for the high SEG). It also bears mentioning that the high SEG was more irritated by radio advertising than the other segments (7.5% compared to 2.7% for the low SEG and 3.3% for the middle SEG).

In terms of the medium through which they most like to receive advertising, the low socio-economic group showed a greater preference for outdoor adverts (48.9% vs. 42.8% for the high SEG and 43.3% for the middle SEG), as well as mobile advertising (15.4% vs. 13.4% high SEG and 10.4% middle SEG). The high socio-economic group showed a greater inclination for television (34.3% compared to 24.2% for the low SEG and 30.1% for the middle SEG), while the middle SEG gave higher scores to the computer (6.5% vs. 4.5% low SEG and 4.5% high SEG) and radio (9.3% vs. 6.9% low SEG and 5.0% high SEG).

It is important to highlight the way in which the socio-economic variable indicates differences in terms of the level of trust placed in communication media as advertising channels. Similarly, in this case the trends displayed within the 'annoyance' variable are repeated, or in other words, the groups that indicated less tolerance for receiving advertising in a given medium referred to it once again as the medium they trust the least to receive advertising. Thus, children in the high SEG pointed to the mobile phone as the most trusted medium to receive advertising in higher numbers than the other groups (19.9% compared to 15.1% for the low SEG and 15.2% for the middle SEG). However, they tend to trust television the least as an advertising medium (37.8% vs. 43.5% low SEG and 45.0% middle SEG). The low SEG is the group that trusts mobile phone advertising the least, despite being the group that reported the greatest exposure to mobile advertising, and that also said it was the preferred medium for receiving advertisements.

DISCUSSION AND CONCLUSIONS

The novelty of this research lies in allowing one to reflect on the positioning that minors give to the media and the platforms that are used most often as advertising channels. It has been possible to analyse the position that the mobile phone occupies as a receptor of advertising messages compared to other media closely connected with children. Some interesting conclusions have been drawn from this study. Firstly, based on the findings, according to the rationale of the minors, the mobile phone stands out mainly for its potential to offer personalised

messages in line with their tastes and interests; however, it is generally through this device that they most dislike receiving advertisements, which directly influences the fact that it is not a reliable, enjoyable, nor entertaining medium for the minors surveyed. One should not ignore the fact that children stated they receive the most advertising from mobile phones and television; this is consistent with previous literature indicating that children consume an average of 14 minutes of advertising per hour of mobile phone browsing, a statistic similar to that of television (Feijoo *et al.*, 2020). It seems evident that the minors surveyed perceive an overload of advertising on mobile phones, which especially affects its position as a medium for receiving advertisements.

The results obtained allow us to reflect on certain trends detected that should be further analysed in future research. Thus, one can see that media with the highest levels of trust are those through which children do not feel they receive a large amount of advertising, and these media also produce the least amount of rejection. Therefore, it appears that the level of trust depends to a large extent on the degree of disruption or annoyance caused by advertising. This approach opens the door to questioning the aspects, elements, and features of advertising that engender trust in the minor.

While the mobile phone was selected as the medium through which respondents receive the most commercial messages and are most annoyed by advertising, they also recognise that this device personalises persuasive content the most. As a result, the mobile phone has also been identified as the medium that awakens the most interest in minors to learn more about the products being promoted. There seems to be a relationship between the variables of personalisation and the desire to know more about the advertised product in the mobile context, which are also the two most valued characteristics of this device as an advertising medium, in contrast to previous studies that have also highlighted the entertainment aspect (Kuster *et al.*, 2017; Maseeh *et al.*, 2021; Tsang *et al.*, 2004; Xu, 2006). This may be due to the fact that the mobile phone is perceived as a medium that is increasingly saturated with advertising (Feijoo *et al.*, 2020).

The comparison with television is unavoidable, as the medium was also characterised by its saturation of advertising messages. It was revealed in this study that the screen through which children prefer to receive advertisements is television, an idea that was previously pointed out by Feijoo and Sádaba (2022), who found that children perceived advertising to be highly segmented by television. In line with the aforementioned, as the TV screen has been rated as less annoying, the trust placed in it by the minors is higher compared to the mobile phone. Therefore, in this study, television has a higher position as an advertising vehicle than the mobile phone in the minds of the surveyed children.

It is also necessary to highlight the outstanding qualities of outdoor advertising. This medium was rated as especially entertaining, and children enjoy receiving advertisements through this format, both of which are relevant characteristics for this age group (Küster *et al.*, 2017). Unlike television or digital advertising, the relationship children have with outdoor advertising has been

addressed less often by science (Jans *et al.*, 2017); thus, in subsequent research it would be interesting to further investigate the factors that drive this positioning, and whether or not perceiving it as a saturated space influences these results.

By observing changes to the findings that have resulted from introducing the variables of age, gender, and socio-demographic group, it has been possible to see the variations they imply in the general trends indicated regarding the mobile phone as an advertising medium. In terms of age, it was found that as the minors grow older, they place more value on the personalisation of advertising messages offered by mobile phones, and they also develop a greater tolerance for message saturation. With regard to gender, one can observe that the mobile phone holds a higher position in the minds of girls than boys. On the other hand, it was interesting to observe how the trust variable is only dependent on the socio-economic group of the household to which the child belongs, which leaves the door open for further research on the impact of socio-educational levels on the child's ability to deal with the advertising received through screens.

Finally, this study offers some lines of thought and reflection that do not pretend to be conclusive, given the limitations of the method used and the treatment of the information. Having opted for a quantitative approach limits a deeper understanding of children's motivations behind their choices. Moreover, the findings reflect impressions, or perceptions of the respondents that may differ from their actions. Likewise, the survey was self-administered and computer-based, and as a consequence the researcher has no record of what level of commitment and understanding the child had at the time of completing the survey. However, a pilot test was carried out to minimise this risk, which ensured that the children under study comprehended the questions, and that the questionnaire was not too long, as this might have resulted in a temptation among the minors to give random answers.

In essence, this research has sought to reveal the way in which children position the mobile phone as an advertising vehicle in comparison to other media and platforms. It has been confirmed that mobile advertising was perceived as excessive and annoying, most likely because it was intrusive and interfered with the children's activity. It should not be forgotten that minors want to be in control of when they see advertising (Feijoo and Sádaba, 2022), which is why television and the street are the most highly valued spaces for advertising. Furthermore, trust seems to depend on this variable, and not so much on other aspects such as use or experience with the medium, as Feijoo and Sádaba (2021) have pointed out. This trend should be explored more deeply in future research.

PRACTICAL IMPLICATIONS

This article presents some practical implications that should be taken into account if advertisers seek to connect with this young segment. Regardless of the fact that mobile advertising offers technical possibilities impossible to provide by other means, minors consider it abusive and irritating. Brands should focus on creating advertising experiences that are not only less intrusive but also more

entertaining and valuable for the user. This includes ads that offer something beyond the simple promotion of a product or service, such as educational content, interactive experiences (AR, VR, gamification), or entertainment tailored to their preferences. Format issues should also not be overlooked: short and vertical videos are often perceived as less irritating for mobile users.

Finally, it is important not to forget that young people are increasingly concerned about their privacy and view intrusive advertising negatively. It is important to balance personalization with respect for privacy and ensure that users have control over the data they share and how it is used for advertising purposes.

CONFLICT OF INTERESTS

The authors declare no conflict of interests.

FUNDING DETAILS

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References

Ali, Moondore and Blades, Mark (2014). Do very young children understand persuasive intent in advertisements? In Mark Blades, Caroline Oates, Fran Blumberg, and Barrie Gunter (Eds.), *Advertising to children: New directions, new media* (pp. 17-37). Springer. https://doi.org/10.1057/9781137313256

Andersen, Lars P.; Tufte, Brigitte; Rasmussen, J., and Chan, Kara (2008). The tweens market and responses to advertising in Denmark and Hong Kong. *Young Consumers, 9*(3), 189-200. https://doi.org/10.1108/17473610810901624

Atkinson, Lucy (2013). Smart shoppers? Using QR codes and 'green' smartphone apps to mobilize sustainable consumption in the retail environment. *International Journal of Consumer Studies, 37*(4), 387-393. http://dx.doi.org/10.1111/ijcs.12025z

Ayala, Luis and Cantó, Olga (2022). *Radiografía de medio siglo de desigualdad en España. Características y factores que explican que España sea uno de los países más desiguales de Europa.* https://elobservatoriosocial.fundacionlacaixa.org/es/-/radiografia-de-medio-siglo-de-desigualdad-en-espana

Boyd, Dannah (2014). *It's complicated: The social lives of networked teens.* Yale University Press.

Burroughs Benjamin (2017). YouTube kids: The app economy and mobile parenting. *Social Media + Society, 3*(2). https://doi.org/10.1177/2056305117707189

Castelló-Martínez, Araceli and Tur-Viñes Victoria (2020). Obesity and food-related content aimed at children on YouTube. *Clinical Obesity, 10*, e12389. https://doi.org/10.1111/cob.12389

Chu, Maria, T.; Blades, Mark, and Herbert, Jane (2014). The development of children's scepticism about advertising. In Mark Blades, Caroline Oates, Fran Blumberg, and Barrie Gunter (Eds.), *Advertising to children: New directions, new media* (pp. 38-49). Springer. https://doi.org/10.1057/9781137313256

Coyne, Sarah and Archer, John (2004). Indirect aggression in the media: A content analysis of British television. *Aggressive Behavoir, 30*(3), 254-271. https://doi.org/10.1002/ab.20022

Ditrendia (2021). *Informe mobile en España y mundo 2021.* https://ditrendia.es/informe-mobile-2021-espana-y-mundo/

Feijoo, Beatriz; Fernández-Gómez, Erika, and Sádaba, Charo (2021) El móvil como nuevo cuarto de juegos: Comparativa de la percepción del consumo de YouTube y videojuegos entre menores chilenos/as y sus padres/madres. *Revista Prisma Social, (34)*, 146-164. https://revistaprismasocial.es/article/view/4327

Feijoo, Beatriz and Sádaba, Charo (2021). Is my kid that naive? Parents' perceptions of their children's attitudes towards advertising on smartphones in Chile. *Journal of Children and Media, 15*(4), 476-491. https://doi.org/10.1080/17482798.2020.1866626

Feijoo, Beatriz and Sádaba, Charo (2022). Specificities Introduced by Mobile Phones in the Relationship Between Children and Commercial Content. *Online Journal of Communication and Media Technologies, 12*(4), e202227. https://doi.org/10.30935/ojcmt/12338

Feijoo, Beatriz; Sádaba, Charo, and Bugueño, Simón (2020). Anuncios entre vídeos, juegos y fotos. Impacto publicitario que recibe el menor a través del teléfono móvil. *Profesional de la Información, 29*, e290630. https://doi.org/10.3145/epi.2020.nov.30

Feng, Xifei; Fu, Shenglan, and Qin, Jin (2016). Determinants of consumers' attitudes toward mobile advertising: The mediating roles of intrinsic and extrinsic motivations. *Computers in Human Behavior, 63*, 334-341. https://doi.org/10.1016/j.chb.2016.05.024

Fernández-Gómez, Erika; Calouri, Romina; Miguel-San-Emeterio, Begoña, and Feijoo, Beatriz (2021). El uso de Instagram por niños youtubers: Gestión de la marca personal, autopromoción y contenidos publicitarios. *Estudios sobre el Mensaje Periodístico 27*(4), 1089-1102. https://doi.org/10.5209/esmp.75754

Gao, Shang and Zang, Zhe (2016). An empirical examination of users' adoption of mobile advertising in China. *Information Development 32*(2), 203-215. https://doi.org/10.1177/0266666914550113

Gómez-Tinoco, Alicia (2012). Mobile marketing as a communication strategy. *Revista ICONO 14, 8*(1), 238-260. https://doi.org/10.7195/ri14.v8i1.292

Hargreaves, Duane and Tiggemann, Marika (2004). Idealized media images and adolescent body image: Comparing boys and girls. *Body-Image, 1*(4), 351-361. https://doi.org/10.1016/j.bodyim.2004.10.002

Harms, Bianca; Bijmolt, Tammo H. A., and Hoekstra, Janny C. (2019). You don't fool me! Consumer perceptions of digital native advertising and banner advertising. *Journal of Media Business Studies, 16*(4), 275-294, https://doi.org/10.1080/16522354.2019.1640517

Hernández, Roberto; Fernández, Carlos, and Baptista, Pilar (2010). *Metodología de la investigación* (5a ed.). McGraw-Hill.

Infoadex (2021). *Resumen estudio Infoadex de la inversión publicitaria en España 2021*. https://infoadex.es/wp-content/uploads/2024/01/Estudio-InfoAdex-2021-Resumen-1.pdf

Jans, Steffi de; Sompel, Dieneke van de; Hudders, Liselot, and Cauberghe, Veroline (2017). Advertising targeting young children: An overview of 10 year of research (2006-2016). *International Journal of Advertising, 38*(2), 173-206. https://doi.org/10.1080/02650487.2017.1411056

Jebarajakirthy, Charles; Maseeh, Haroon Iqbal; Morshed, Zakir; Shankar, Amit; Arli, Denni, and Pentecost, Robin (2021). Mobile advertising: A systematic literature review and future research agenda. *International Journal of Consumer Studies*, 1-34. https://doi.org/10.1111/ijcs.12728

Kantar Millward Brown (2017). *AdReaction: Engaging gen X, Y and Z*. https://screenforce.nl/wp-content/uploads/2017/08/Kantar-Millward-Brown-AdReaction-GenXYZ.pdf

Kim, Yoo Jung and Han, JinYoung (2014). Why smartphone advertising attracts customers: A model of Web advertising, flow, and personalization. *Computers in Human Behavior, 33*, 256-269. https://doi.org/10.1016/j.chb.2014.01.015

Koslow, Scott (2000). Can the truth hurt? How honest and persuasive advertising can unintentionally lead to increased consumer skepticism. *Journal of Consumer Affairs, 34*(2), 245-267. https://doi.org/10.1111/j.1745-6606.2000.tb00093.x

Küster, Inés; Ruiz, Carla, and Damian, Christian (2017). Is mobile advertising effective? *Revista de Ciencias Sociales, 23*(1), 22-33. https://www.redalyc.org/journal/280/28056725003/html/

Lee, Eui-Bang; Lee, Sang-Gun, and Yang, Chang-Gyu (2017). The influences of advertisement attitude and brand attitude on purchase intention of smartphone advertising. *Industrial Management and Data Systems, 117*(6), 1011-1036. https://doi.org/10.1108/IMDS-06-2016-0229

Lichy, Jessica; McLeay, Fraser; Burdfield, Claire, and Matthias, Olga (2022). Understanding pre-teen consumers social media engagement. *International Journal of Consumer Studies, 47*(1), 202-215. https://doi.org/10.1111/ijcs.12821

Márquez, Israel (2013). Roles, estereotipos y usos: Género y videojuegos. *Telos: Cuadernos de Comunicación e Innovación*, (96), 106-114.

Martí, José; Sanz-Blas, Silvia; Ruiz-Mafé, Carla, and Aldás-Manzano, Joaquín (2013). Key factors of teenagers' mobile advertising acceptance. *Industrial Management & Data Systems, 113*(5), 732-749. https://doi.org/10.1108/02635571311324179

Martí-Pellón, Daniel and Saunders-Uchoa-Craveiro, Pamela (2015). Children's exposure to advertising on games sites in Brazil

and Spain. *Comunicar*, *23*(45), 169-177. https://doi.org/10.3916/C45-2015-18

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

Martínez, Carolina; Jarlbro, Gunilla, and Sandberg, Helena (2013). Children's views and practices regarding online advertising. *Nordicom Review*, *34*(2), 107-122. https://doi.org/10.2478/nor-2013-0057

Martínez, Inmaculada J. and Aguado, Juan Miguel (2014). Publicidad móvil: Impacto presente y futuro en el ecosistema del contenido digital. *Revista de la Asociación Española de Investigación de la Comunicación, 1*(1), 76-85.

Maseeh, Haroon-Iqbal; Jebarajakirthy, Charles; Pentecost, Robin; Ashaduzzaman, Md; Arli, Denni, and Weaven, Scott (2021). A meta-analytic review of mobile advertising research. *Journal of Business Research, 136*, 33-51. https://doi.org/10.1016/j.jbusres.2021.06.022

McLuhan, Marshall; Fiore, Quentin, and Agel, Jerome (1987). *El medio es el mensaje*. Paidós.

MMA (2014). *Smart mobile cross marketing effectiveness research insight report.* https://www.mmaglobal.com/documents/smox

Moral, María Esther del; Villalustre, Lourdes, and Neira, María Rosario (2016). Estrategias publicitarias para jóvenes: Advergaming, redes sociales y realidad aumentada. *Revista Mediterránea de Comunicación*, *7*(1), 47-62. https://doi.org/10.14198/MEDCOM2016.7.1.3

Núñez-Gómez, Patricia; Sánchez-Herrera, Joaquín, and Pintado-Blanco, Teresa (2020). Children's engagement with brands: From social media consumption to brand preference and loyalty. *Sustainability*, *12*(22), 9337. https://doi.org/10.3390/su12229337

Oates, Caroline; Newman, Nicki, and Tziortzi, Athanasia (2014). Parent's beliefs about, and attitudes towards, marketing to children. In Mark Blades, Caroline Oates, Fran Blumberg, and Barrie Gunter (Eds.), *Advertising to children: New directions, new media* (pp. 115-136). Springer. https://doi.org/10.1057/9781137313256

Opree, Suzanna J.; Petrova, Siana, and Rozendaal, Esther (2020). Investigating the unintended effects of television advertising among children in former-Soviet Bulgaria. *Journal of Children and Media, 14*(2), 141-157. https://doi.org/10.1080/17482798.2019.1644359

Pires, Fernanda; Masanet, María-Jose, and Scolari, Carlos (2021). What are teens doing with YouTube? Practices, uses and metaphors of the most popular audio-visual platform. *Information, Communication & Society, 24*(9), 1175-1191 https://doi.org/10.1080/1369118X.2019.1672766

Raines, Callum (2013). In-app mobile advertising: Investigating consumer attitudes towards pull-based mobile advertising amongst young adults in the UK. *Journal of Promotional Communications, 1*(1), 125-148. https://www.promotionalcommunications.org/index.php/pc/article/download/21/20

Robertson, Thomas S. and Rossiter, John R. (1974). Children and commercial persuasion: An attribution theory analysis. *Journal of Consumer Research, 1*(1), 13-20. https://doi.org/10.1086/208577

Rozendaal, Esther, Opree, Suzanna J., and Buijzen, Moniek (2016). Development and validation of a survey instrument to measure children's advertising literacy. *Media Psychology, 19*(1), 72-100. https://doi.org/10.1080/15213269.2014.885843

Sandberg, Helena (2011). Tiger Talk and Candy King: Marketing of unhealthy food and beverages to Swedish children. *Communications, European Journal of*

Communication Research, 36(2), 217-244. https://doi.org/10.1515/comm.2011.011

Taylor, Charles R. and Carlson, Les (2021). The future of advertising research: New directions and research needs. *Journal of Marketing Theory and Practice, 29*(1), 51-62. https://doi.org/10.1080/10696679.2020.1860681

Trucco, Daniela and Palma, Amalia (2020). *Infancia y adolescencia en la era digital: Un informe comparativo de los estudios de Kids Online del Brasil, Chile, Costa Rica y el Uruguay*. Documentos de Proyectos (LC/TS.2020/18/REV.1), Santiago, Comisión Económica para América Latina y el Caribe (CEPAL). https://www.cepal.org/es/publicaciones/45212-infancia-adolescencia-la-era-digital-un-informe-comparativo-estudios-kids-online

Tsang, Melody; Ho, Shu-Chun, and Liang, Ting-Peng (2004). Consumer attitudes toward mobile advertising: An empirical study. *International Journal of Electronic Commerce, 8*(3), 65-78. https://doi.org/10.1080/10864415.2004.11044301

Ullah, Imdad; Kanhere, Salil S., and Borelli, Roksana (2023). Privacy in targeted advertising on mobile devices: A survey. *International Journal of Information Security, 22*(3), 647-678. https://doi.org/10.1016/j.jnca.2022.103559

Wang, Rebeca Jen-Hui; Kim, Su Jung, and Malthouse, Edward (2016). Branded apps and mobile platforms as new tools for advertising in the new advertising: Branding, content, and consumer relationships. In Ruth Brown, Valerie K. Jones, and Ming Wang (Eds.), *Data-driven social media era* (pp. 123-156). Praeger.

Xu, David Jingjun (2006). The influence of personalization in affecting consumer attitudes toward mobile advertising in China. *Journal of Computer Information Systems, 47*(2), 9-19.