

From attention to intention in mobile advertising. Analysis of the ads that generate interaction among the new generations of users¹

De la atención a la intención en la publicidad móvil. Análisis de los anuncios que generan interacción entre las nuevas generaciones de usuarios

Da atenção à intenção na publicidade móvel. Análise dos anúncios que geram interação entre as novas gerações de usuários

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This paper aims to identify the type of ads which attract the most clicks among new generations. 45 users ages 10 to 14 underwent weekly monitoring of their mobile phone use by means of a screen recorder, to monitor the real impact of ads. 41 hours of recording were analyzed and a total of 2 410 mobile ads were subjected to content analysis. This study shows that search advertising and commercial content created by influencers generate the highest percentage of interaction clicks, particularly when advertising toys, electronics and entertainment brands.

KEYWORDS: Mobile advertising; interaction; ad formats; influencers; new generations.

Este estudio busca identificar qué tipo de anuncios publicitarios en móvil atraen más el clic entre las nuevas generaciones. 45 usuarios de edades comprendidas entre 10 y 14 años se sometieron a un seguimiento semanal del uso de su móvil mediante screen recorder, consiguiendo monitorear el impacto publicitario real. Se registraron 41 horas de grabación y 2 410 anuncios móviles que se sometieron a un análisis de contenido. El estudio muestra que la publicidad SEM y los contenidos comerciales creados por influencers generan el mayor porcentaje de clics, sobre todo cuando se anuncian marcas de juguetes, electrónica y entretenimiento.

PALABRAS CLAVE: Publicidad móvil; interacción; formatos publicitarios; influencers; nuevas generaciones.

Este estudo busca identificar que tipo de publicidade mobile atrai mais cliques entre as novas gerações. 45 usuários com idades entre 10 e 14 anos realizaram monitoramento semanal do uso do celular por meio de gravador de tela, conseguindo monitorar o real impacto da publicidade. Foram gravadas 41 horas de gravação e 2.410 anúncios para celular e submetidos à análise de conteúdo. O estudo mostra que a publicidade SEM e o conteúdo comercial criados por influenciadores geram o maior percentual de cliques, principalmente quando anunciam marcas de brinquedos, eletrônicos e entretenimento.

PALAVRAS-CHAVE: Publicidade móvel; interação; formatos de publicidade; pessoas influentes; novas gerações.

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INTRODUCTION

Smartphones currently are one of the main ways people access the Internet, and mobile traffic has surpassed desktop access in Western societies. Given that advertising needs to reach its target public, logically its aim is to be visible to its audience's screens and, ideally, be seen and recognized. Equally evident is the challenge of getting user's attention given the wide variety of smartphone uses and the personal nature of their use. These features increase smartphone users' sensitivity toward the type of messages they receive (Park et al., 2008).

The significance of the smartphone as a means of reaching an increasingly diverse audience has been followed by an interest in analyzing the attitude of users towards the messages received on these devices (Leppaniemi & Karjaluoto, 2005), the effectiveness of certain messages or mobile technologies (Leek & Christodoulides, 2009), the variety of user attitudes and responses to commercial and non-commercial content (Altobello & Bruner, 2008), and differences attributable to user profiles (Ünal et al., 2011).

As mobile phones become a multipurpose, personal and more ubiquitous object, advertising adapts to the consolidation of apps (Marchetti, 2016; Martins & Enes, 2020) and to optimizing for screen sizes.

MOBILE ADVERTISING AND YOUNG USERS

Mobile devices, smartphones or tablets are the fastest growing digital advertising medium (Taken, 2019). Two approaches can be taken to understand mobile advertising: one considers mobile phones as just another medium that reproduces conventional formats and models; the other endows mobiles with technological specificity (location, interactivity, social connectivity, etc.) and thus considers smartphones as suitable for exploring innovative formats (Martínez Martínez & Aguado, 2014). Advertising formats range widely, such as messaging, emailing, etc. In terms of content, variety can include apps (advergaming, appvertising) or access to branded content. Not surprisingly, as stated by Wielki (2020), product, services or brand promotion has increased in complexity and difficulty.

The dynamism of the device itself is an additional factor which mobile advertising must consider. According to Atkinson (2013), this process includes adapting to how messages are delivered in as much as how consumers become part of the mobile communication process, by developing increasingly digital, participatory and less intrusive content. This scenario marks the origin of the popularity of hybrid content (Kim et al., 2016) particularly influencer marketing which has become a topic in which various authors have raised their concerns on the blurring limits between content and advertising (An & Kang, 2014; Chen et al., 2013; Terlutter & Capella 2013). This issue becomes particularly significant when vulnerable audiences are involved (Van Reijmersdal & Rozendaal, 2020).

Liu-Thompkins (2019) in her review of the scientific literature on digital advertising points out the relevance of the works that have analyzed the mechanisms by which online advertising accompanies consumers, a process that begins by capturing and maintaining their attention and lasts until consumer engagement is achieved. Customer attention at the moment of exposure to an ad can be key to achieving his or her action (Calder et al., 2009; Teixeira et al., 2012), and elements such as format, brand or location of the ad may be involved.

Many elements may play into achieving consumer attention or positive receptivity. According to Park et al. (2008), the effectiveness of mobile advertising is influenced by factors related to the advertisement itself, the target audience and context or environment in which the ad is received. Grewal et al. (2016) states that factors defining the user's context (physical location, time of day, weather conditions) and the consumer him/herself (phase of his/her customer journey, personal customer history) are particularly relevant and should be considered and analyzed in more detail. Grewal et al. (2016) establishes a gradation within the response itself and enumerates the stages as: 1) awareness/attention; 2) engagement; 3) purchase interest; 4) conversion; 5) repurchase or advocacy. How consumers progress from one stage to the next, or the possible effects on how consumers interact with advertising is the aforementioned customer accompaniment to which Liu-Thompkins (2019) grants special relevance.

Along these lines, this study relates the extent of interaction with digital advertising and three elements of advertisement: the format (Llorente-Barroso, 2013; Rebollo-Bueno, 2019; Romero & Fanjul, 2010), the platform on which it is located (Greenberg, 2012; Jessen & Rodway, 2010; Simola et al., 2011) and the type of product advertised (ditrendia, 2021; IAB Spain, 2021). The relevance of these variables in the web context has been well established. The aim is to check whether the same proves to be true in the mobile context.

Indeed, in the web environment, user response to advertising formats varies. For example, display advertising generates much lower response rates than that generated by native advertising (Maestro-Espínola et al., 2019); advertising on social networks (Núñez-Gómez et al., 2020; Pintado & Sánchez, 2018); the advergaming (An & Kang, 2014; Mallinckrodt & Mizerski, 2007; Van Reijmersdal et al., 2012; Vanwesenbeeck et al., 2017) or influencer marketing (Feijoo & Sádaba, 2021a; Lou et al., 2019; Lou & Yuan, 2019; Trivedi & Sama, 2020; Zozaya & Sádaba, 2022). This study analyzes formats on mobile devices and aims to see whether within the mobile scenario the role of advertising format is as significant as it is in the web scenario.

Likewise, Internet advertising works differently depending on the context in which ads are placed; consequently ad location is as decisive a factor when aiming to attract web users (Greenberg, 2012) as it is to attracting mobile users (Feijoo & Sádaba, 2021b). Predictability in ad placement increases user's ability to ignore ads (Jessen & Rodway, 2010). Thus attractive placements, such as insertion in video games, are chosen aiming at transferring the positive feelings generated by the context to the advertisement and the brand itself (Mallinckrodt & Mizerski, 2007; Van Reijmersdal et al., 2012; Vanwesenbeeck et al., 2017).

Personalization is a particularly valued feature in digital and social advertising (ditrendia, 2021; IAB Spain, 2021; Pintado & Sánchez, 2018), hence the type of advertised product is also considered key in attracting user's attention.

User's clicking on ads is one of the ways in which user interaction with digital advertising is measured (Greenberg, 2012). Several studies on web interaction have shown that mouse pointer gestures (movements, clicks, etc.) and eye movements are correlated and, by extension, with attention and intentionality (Huang et al., 2011). In this line, this study

assigns the highest level of interaction to clicking. Also considered is gaze dwell time (that is, gaze fixation), another indicator of attention (Chen et al., 2001).

Thus, the following RQ is proposed: Is there an association between the level of interaction generated by an ad on a cell phone and (a) its format; (b) the platform on which it is located; and (c) the type of product that is promoted?

Nowadays the younger generations, children, and teenagers, are also using smartphones intensively to communicate and for entertainment, and thus have become part of the online audience as well as occasional active consumers (Stirratt, 2016; Taken, 2019). It is pertinent to question whether their vision of and attitude toward advertising is different from that of adults (Kirk et al., 2015). The review by Liu-Thompkis (2019) revealed the limitations of research on this audience, bringing to light once again children's vulnerabilities to the growing phenomenon of online advertising (e.g., Rifon et al., 2014; Van Reijmersdal, et al., 2012).

METHODOLOGY

This exploratory research seeks to shed light on the level of interaction that mobile advertising triggers among the new generations of smartphone users, particularly minors ages 10 to 14. Three key elements of mobile advertising (advertising format, advertiser category and the platform on which it is located) could be influential in determining the level of interaction. Ultimately, this research aims to provide in-context evidence on the attention that smartphone advertising mobilizes in users.

The selected data collection methodology is one of the contributions made by this research. Minors' daily routine on their smartphone was recorded on the device they used most, and thus the data collected stem from the users' browsing history itself compared to other data collection methods in which participants are provided with phones for research purposes.

Digital ethnography was used to ensure the information obtained was as close as possible to the reality being studied, in this case, the recording of advertising consumption on the mobile phone most used

by minors. The need to collect data as naturalistically and discreetly as possible (Hine, 2000), and thus analyze their spontaneous routine with the device drove this choice. Researchers studying digital inclusion and the appropriation of the Internet in a “natural” environment (Bakardjieva, 2005; Leung, 2005) have widely used this technique.

This study was based on a non-participant digital observation by the research team. Minors themselves recorded the screen of their device (screen recorder) and recordings of movements and contents visited while using the mobile device were obtained.

The nature of this project leads to reflect on the application of ethnographic methods and ethical considerations regarding the participation of minors in field work. To safeguard the integrity of participants and researchers, prior to data collection an informed written consent authorization was requested from the minor’s legal guardian and by the minor him/herself. This informed written consent had been previously reviewed and validated by the Ethics Committee of the university to which the research project is attached (University of Los Andes).

Finally, the participant or legal guardian sent the audiovisual pieces to those responsible for the investigation through WhatsApp or email. A minimum duration was requested to guarantee the quality of the observation, specifically, each recording sent was to last no less than five minutes in which routine use and advertising exposure were recorded. Recordings were performed throughout one week (from Monday to Sunday), ideally generating material per day. The instructions provided to the responsible adult recommended that data should be collected during routine use, so the data collected would be close to the reality of the user. The non-participant nature of the method, and thus the fact the recordings were made without the supervision of the researcher, led to some unforeseen events and imbalances in the information collection process, such as irregularities in the number of videos sent and in their duration. This field work was conducted between May and September 2019.

A total of 45 users (parental mobile N = 17, own mobile N = 28; male N = 14, female N= 31; ages 10-12 years N = 21, ages 13-14 N = 24) underwent monitoring. The longitudinal nature of the study, and the invasiveness of the method, made it difficult to confirm the

participation of the sample. Finally, 356 recordings were collected, which registered a total of 41 hours, 45 minutes and 39 seconds of recording and a total count of 2 410 advertisements.

Digital ethnography methodology was followed to collect the information. However, the audiovisual record obtained was subject to content analysis and thus the type of advertisements that minors receive on their mobile phone and with which they interact the most could be analyzed using the statistical program SPSS. Content analysis for this study was performed on a matrix comprising the following variables:

1. Level of interaction, comprised of three levels: (1) No interaction, understood as no alteration in the flow of navigation of the user; (2) Visual Attention, for which an alteration in the rhythm of navigation is perceived, such as a slowdown in the speed of the scroll, which indicates longer gaze fixation; (3) Click interaction, for which the user clicks on the ad as described in Chen et al. (2001) and Huang et al. (2011) for the web environment and to which particularities of the mobile context were included to measure the intention and attitude of users towards advertising (Feijoo et al., 2020; Feijoo & Sádaba, 2021b; Tsang et al., 2004).
2. Ad format, as described in the IAB Spain classification (2018) endorsed by the industry: (1) Display; (2) Social networks; (3) Search; (4) SMS; (5) Proximity advertising; (6) Emailing; (7) Content marketing, including in this category both own media and native advertising; (8) Commercial content created by influencers, whether it is earmarked as advertising or not; (9) Brand apps.
3. The platform on which the ad is inserted. The categories of this variable were defined considering the platforms and services recurrently used among the users, highlighted by recent studies and reports (Feijoo et al., 2020; Feijoo & Sádaba, 2021b; IAB Spain, 2021): (1) Instagram (app); (2) Instagram (browser); (3) Game (app); (4) Games (browser); (5) YouTube (app); (6) YouTube (browser); (7) Facebook (app); (8) Facebook (browser); (9) TikTok; (10) Spotify; (11) WhatsApp; (12) Email; (13) Twitter; (14) Website; (15) Other.
4. Category of the advertised brand, differentiating between (1) Fashion; (2) Toys; (3) Sport; (4) Food, drinks and sweets;

(5) Electronics (devices, screens and video games); (6) Culture and Education; (7) Beauty and hygiene; (8) Automotive; (9) Transportation, travel and tourism; (10) Telecommunications and Internet services; (11) Entertainment (series, movies, VOD); (12) Entertainment (Music); (13) Ecommerce; (14) Social networks and applications; (15) Financial services; (16) Real estate; (17) Health; (18) Home; (19) Other.

RESULTS

Description of the type of mobile advertising registered

The sample is made up of 2 410 ads that were recorded during 41 hours of mobile use recording among users aged 10 to 14. Exposure averages out to one ad per minute of use.

By advertising format, display ads, both on webs and in apps, were the most recurrent formats, followed by advertising on social networks (standard formats); which in total represented almost 85% of the cases analyzed. Content marketing, understood as native advertising and publication in own media, represent 95% of the sample, and the remaining 5% distributed among commercial content published by influencers, SEM, emailing and mobile messaging (see Table 1).

Regarding the platforms in which the ads were inserted, game apps and the Instagram app accounts for 75% of the cases analyzed, something to be expected as these are two of the three most recurrent services in the routines of use by minors. YouTube accounted for a lower percentage of ads (see Table 2).

With regard to the category of advertising brands detected, a great variety of products and services were observed,⁵ with a notable presence of the electronics, food, and fashion markets (see Table 3). Considering the response generated by this type of ads and by smartphone users, 23.4% produced some kind of interaction.

⁵ Advertisements for seldom used but age-adequate products and services related to minors were included in the “Others” category, and include toys (1.2%); culture and education (2.7%); as well as other items that could be considered to be more distant from the interests of minors, such as financial, management and insurance services (2%); real estate (1.2%); health (0.8%); home, decoration and cleaning (1.9%) or automotive (1.4%).

TABLE 1
INTERACTION EFFECT ACCORDING TO TYPE OF ADVERTISING FORMAT

		Display	Social networks	Search /SEM	SMS	Email marketing	Content marketing	Influencers commercial content	Total
No interaction	N	1 116	489	31	5	2	186	17	1 846
	%	91.8	60.8	67.4	100.0	66.7	67.6	28.3	76.6
Visual	N	33	306	0	0	1	55	29	424
	%	2.7	38.1	0.0	0.0	33.3	20.0	48.3	17.6
Click	N	67	9	15	0	0	34	14	139
	%	5.5	1.1	32.6	0.0	0.0	12.4	23.3	5.8
Total	N	1 216	804	46	5	3	275	60	2 409
	%	100	100	100	100	100	100	100	100

Source: Own elaboration.

TABLE 2
INTERACTION EFFECT ACCORDING TO TYPE OF PLATFORM

		IG (app)	IG (browser)	Games (app)	Games (browser)	YT (app)	YT (browser)	FB (app)	FB (browser)	Tik Tok	Spotify	Email	Web	Other	Total
No interaction	N	514	6	899	78	180	73	6	15	0	2	5	29	38	1 845
	%	60.3	60.0	92.3	92.9	72.6	75.3	30.0	65.2	0.0	100.0	55.6	65.9	95.0	76.6
Visual	N	317	4	20	3	42	12	11	8	4	0	1	2	1	425
	%	37.2	40.0	2.1	3.6	16.9	12.4	55.0	34.8	80.0	0.0	11.1	4.5	2.5	17.6
Click	N	21	0	55	3	26	12	3	0	1	0	3	13	1	138
	%	2.5	0.0	5.6	3.6	10.5	12.4	15.0	0.0	20.0	0.0	33.3	29.5	2.5	5.7
Total	N	852	10	974	84	248	97	20	23	5	2	9	44	40	2 408
	%	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: Own elaboration.

TABLE 3
INTERACTION EFFECT ACCORDING TO CATEGORY OF THE ADVERTISED PRODUCT OR SERVICE

		Fashion	Toys	Sports	Food. drinks	Electronics	Culture / Education	Beauty / Hygiene	Automotive	Transportation/ Travel / Tourism	Telecomm./ Internet serv.
No	N	222	12	58	335	347	47	94	22	155	54
interaction	%	67.5	42.9	76.3	87.5	76.8	73.4	70.7	66.7	88.1	84.4
Visual	N	87	9	16	43	41	15	38	10	18	5
	%	26.4	32.1	21.1	11.2	9.1	23.4	28.6	30.3	10.2	7.8
Click	N	20	7	2	5	64	2	1	1	3	5
	%	6.1	25.0	2.6	1.3	14.2	3.1	0.8	3.0	1.7	7.8
Total	N	329	28	76	383	452	64	133	33	176	64
	%	100	100	100	100	100	100	100	100	100	100

		Entertainment (visual)	Entertainment (music)	Ecommerce	Social networks/ apps	Financial serv.	Real estate	Health	Other	Home	Total
No	N	65	49	107	75	45	25	15	58	35	1820
interaction	%	63.7	45.4	87.7	82.4	93.8	89.3	75.0	71.6	77.8	76.4
Visual	N	24	59	10	11	2	3	5	18	10	424
	%	23.5	54.6	8.2	12.1	4.2	10.7	25.0	22.2	22.2	17.8
Click	N	13	0	5	5	1	0	0	5	0	139
	%	12.7	0.0	4.1	5.5	2.1	0.0	0.0	6.2	0.0	5.8
Total	N	102	108	122	91	48	28	20	81	45	2383
	%	100	100	100	100	100	100	100	100	100	100

Source: Own elaboration.

Level of interaction of the ad according to its format, placement and type of promoted product

Chi-square tests verified that the interaction level variable is not independent of any of these three variables: platform, advertising format or type of advertised product: $\chi^2(12, N=2409)=612,476$, $p<.05$ (interaction*format); $\chi^2(24, N=2408)=547,795$, $p<.05$ (interaction*platform); $\chi^2(36, N=2383)=328,333$ $p<.05$ (interaction*product type).

Having assigned the highest level of interaction to user clicking on an ad, the advertising format that registered the highest percentage of clicks was “search” (32.6%). Second was commercial content published by influencers (23.3%), which also attracted user visual interaction (48.3%). Social networks formats preferentially called for visual attention (38.1%), while most display ads (91.8%) caused no interaction (Table 1).

By type of platform in which the ad is inserted (Table 2), the highest level of clicking was reached by ads placed on web pages (29.5%) and on YouTube (10.5% app; 12.4% browser). In general, social networks registered mostly visual interaction, while advertising inserted in games (both in apps and on the web) practically registered no kind of user response.

The study verified that by product categories, toys (25%), electronics (14.2%), and entertainment (12.7%) registered the highest clicking counts. Fashion, beauty / hygiene, automotive, and music entertainment brands caught the highest levels of user’s visual attention (Table 3). Financial services, real estate, transport and travel, e-commerce, food, and telephony hardly registered any interaction.

DISCUSSION

Mobile phones have become a personal and omnipresent object and present the advertising world with advantages that are not accessible to other media and platforms.

As a consequence, in addition to increasing sense of intimacy during individual consumption, the interaction between phone user and advertising message can be enhanced and lengthened.

Display ads were the type most present in the sample studied (50%). This is the most conventional and recurrent format in digital advertising and is characterized by low click rates. This would verify that smartphones are mostly used to reproduce multiplatform formats. Only a minority advertising would have been thought of ad hoc and would seek a less direct, simpler, and more empathetic way to connect (Martínez Martínez & Aguado, 2014).

Thus, no interaction was recorded for 76.6% of the ads analyzed, a percentage that increases to 92% in the case of advertising in display format. Display formats on mobile contexts also present low clicking rates, 5.5% of the cases studied. On the contrary, attention and clicks on commercial content published by influencers in their corresponding social networks was significant, which corroborates the predisposition and interest that this type of publications arouses among the new generations also through the mobile phone (Van-Dam & Van Reijmersdal, 2019).

Regarding platforms and channels, it seems that ads placed on social networks attract the attention of the user, both visually and by clicking. However, these advertising messages must provide added value considered as interesting and attractive to their audience: raffles, promotions, discounts, or entertainment (De-Cicco et al., 2020; Kantar, 2017). Clicking interaction in an apparently favorable context such as video games is low.

Another relevant issue is the direct relationship observed between advertising brand category and click interaction. The click interaction was higher in the case of ads for toys, electronics, culture and education and entertainment, topics related to minors' consumer interests (10-14 years). It is noteworthy pointing at the great variety of differentiated brand categories, with products and services in the field of health, real estate, finance, and home / decoration / cleaning that could be considered far from the interests of minors. These finding highlights one of the limitations of behavioral advertising, which segments advertising based on browsing history, a register that is based on the information collected while a device is being used, in this case, by different users with very different consumption profiles, parents and children, for instance. This results can open new lines of research thanks

to the methodology used that made it possible to record the actual use on the device itself.

Thus, it is curious to see that this study did record the use of registered apps as an advertising medium, but not as marketing tools (brand apps). About 85% of the ads were viewed through apps, but preferably to host display advertising.

Interpreting clicking as interaction does pose some limitations (Greenberg, 2012): as clicking may be the only alternative users have to avoid advertising and continue with the activity in which users were engaged. Having to repeatedly click on ads in order to continue browsing irritates users (Kantar, 2017; Martí-Parreño et al., 2013; Martí-Pellón & Saunders, 2015). Future qualitative research should aim to assess the clicking “quality” registered by the ads.

CONCLUSIONS

This paper reveals the increasing pressure exerted by advertisers on mobile phone users by accessing real browsing routines: for every minute in front of a smartphone, screen users are exposed to almost one complete ad. Thus, there is a need to learn how to increase message effectiveness (Grewal et al., 2016), analyzed how context influences user reactions and register how phone users react to advertising. Based on the results analyzed, mobile phones have become a screen with which users achieve greater interaction when they can opt for pull advertising that offers added value such as fun or entertainment.

Lastly, the intensive presence of advertising on minors’ devices which includes content clearly aimed at an adult audience (Boerman, 2017) must keep us alert. Minors are considered a vulnerable audience and the adult world should ponder the need to be vigilant regarding children’s exposure to advertising (Van Reijmersdal et al., 2012).

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