

# VIDEO DESIGN ADAPTATION TO YOUTUBE ADVERTISING FORMATS

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## RESUMEN

*Este trabajo en curso analiza cómo diferentes diseños publicitarios en términos de arousal (intensidad emocional) pueden contribuir a mejorar la efectividad de la video publicidad online. La literatura previa sugiere que un final con alto arousal puede incrementar la efectividad publicitaria. Para comprobar esta proposición, nuestra investigación combina diferentes metodologías: neurociencia aplicada al comportamiento del consumidor; un estudio de campo basado en una campaña publicitaria en YouTube y un estudio final. Los primeros resultados sugieren que el diseño publicitario ha de adaptarse a los nuevos formatos de video publicidad interactiva en función de los objetivos de los anunciantes.*

### Palabras clave:

Publicidad, neuromarketing, YouTube, efectividad publicitaria.

## ABSTRACT

*This work in progress analyzes how different arousal advertising design may enhance online video advertising effectiveness. Previous research suggests that arousing ending designs could increase ad effectiveness. To test this proposition, our research combines different methodologies: a consumer neuroscience pretest is used to identify high and low arousal sequences; a field study based on a YouTube ad campaign is used as an exploratory study which helps to determine the experimental scenarios to be used in the final study with a large sample size. Preliminary results suggest that ad design need to be adapted to new formats of interactive advertising depending on the advertisers' goals.*

### Keywords:

Advertising, neuromarketing, YouTube, ad effectiveness.

## 1. Introduction

Internet has revolutionized the way users interact with information, also in the advertising industry. The global online advertising spending has grown a 27.14% in the period 2010-2016 (Statista, 2016), surpassing the traditional leading position of TV in the US for the first time (eMarketer, 2016). In this line, advertising is the core business of social media companies such as YouTube-Google or Facebook (Hofacker and Belanche, 2016). However, the specific features of the online media (e.g., interactivity, goal impediment perception) increase the perception of intrusiveness related to online ads compared with traditional media ads (Cho and Cheon, 2004). This loss of online advertising effectiveness represents a challenge for advertisers and social media managers (Li and Lo, 2015).

In our aim to solve this issue, we considered research in traditional media, which confirmed that the introduction of highly arousing stimuli designs usually increase advertising effectiveness, as well as consumer attention, and attraction toward the ad (Heath et al., 2006), also in the online setting (Fortin and Dholakia, 2005). Expanding this knowledge, we propose that the introduction of highly arousing stimulus in online display ads contribute to increase advertising effectiveness. Our research focuses on YouTube as the prototypical and leading video sharing social media worldwide, which presents display video ads as the basis of its business model. Previous research indicated that, due to their recent introduction, YouTube video ads are usually very similar if not the same that those broadcasted in TV campaigns (Pashkevich et al. 2012). In this context, our research analyzes whether different arousal patterns obtained from a neurophysiological pretest (a video ad with a high-arousal start, a high-arousal ending or a low-arousal) result in greater ad effectiveness.

Furthermore, our work in progress contributes to the communication field by combining complementary methods to analyze individuals' physiological reactions to marketing stimuli (Poels and Dewitte, 2006). Neurophysiology measures are employed to assess consumers' arousal level caused by video sequences; a field study through a campaign in Google AdWords is used to explore our framework in the YouTube setting; finally, we plan to use self-reported scales for the main lab study.

## 2. Literature review

Fundamentally, advertising literature considers attitude toward the ad, attitude toward the brand, and brand recall as the principal indicators of advertising effectiveness (Till and Baack, 2005), though variables such as ad acceptance (e.g. watching time) or ad intrusiveness has been recently added as additional effectiveness measures in the online context (Belanche et al., 2017).

As a general premise, literature assumes that arousing stimuli get higher levels of attention and interest (Kensinger and Corkin, 2003), whereas users who are not sufficiently aroused tend to have negative reactions to advertised companies or websites (Jeong and Biocca, 2012). Previous research suggests that arousing and entertaining ads reduce the perceived level of intrusiveness (Edwards et al., 2002). Classical research also demonstrates that arousal influences information retention and attitude formation, such as attitude toward the ad or attitude toward the brand (Holbrook and Hirschman, 1982). Embedding a high-arousal stimulus in ads increases consumer attention and information processing (Kensinger

and Corkin, 2003), and has positive influences on perceived ad and brand desirability on television (Aaker et al., 1986). Usually, these ad elements create an engaging environment (or positive predisposition) that favors an easy processing and endorsement of the brand presented afterwards (Maher et al., 2006).

Despite the widespread knowledge about the use of arousal in advertising, and the assumption that the message processing depends on temporal placement of arousal (Lang, 2000), little is known about the best position to use an arousal trigger in the design of online ads. Advertising hierarchical models, such as AIDA (Attention, Interest, Desire, and Action) (Aaker et al., 1992), argue that attention is the first phase of information processing. Thus, arousing cues stimulating attention should be presented before the brand name in order to ensure that the consumer is paying attention to the ad when the brand is presented. This model assumes that a temporal distance is needed between the arousal trigger and the brand information for an effective brand recall (Lang, 2000). Therefore, the arousal trigger that attracts viewer interest should be some time before the brand name, facilitating the ad processing (Menon and Soman, 2002). Thus, in contrast to low-arousal, perceived by users as less interesting or attractive (Sundar and Kalyanaraman, 2004); high-arousal stimuli will increase ad effectiveness when placed before the brand name.

Nevertheless, the attention level reaches a peak and decreases gradually due to the adaptation effect, thus viewers' favorable responses decrease certain time after being exposed to the arousal stimulus (Li and Lo, 2015). Following this pattern, advertisers usually rely on "linear increase" designs in which the highest arousal stimuli is reserved for the end of the ad, reflecting a preference for final positive outcomes that could help to achieve advertisers commercial purposes (Teixeira et al., 2012). In the absence of other interrupting elements, this reduced time distance separating the arousal stimuli from the advertised brand may increase the strength of the association between the advertising-related reactions and the brand (Keller, 1991). Shorter time between the high-arousal stimuli and the end of the commercial may facilitate users association of the ad with the advertised brand, and build stronger relationships with the values conveyed in the ad (Baker et al., 2004). Thus, our research proposition is as follows:

**P1.** High-arousal ending online video ads increase advertising effectiveness, compared to low-arousal and high-arousal start online video ads.

### **3. Method**

#### ***3.1. Pretest: Neurophysiological method for arousal measurement and ad selection***

42 people participated in the pretest (21 women and 21 men, ranged 18 to 42 years old) carried out in the BitBrain neuroscience company lab. The instrumentation used was a 32 water-based channels EEG (Electroencephalograph), a skin conductance sensor, and other bio-instrumentation like electrocardiogram, SpO2 (Pulse oximeter), etc. All the instrumentation and video presentations were synchronized within the common amplifier and its related software to obtain an aggregated arousal measure. The participants were asked to sit comfortably and watch 24 online videos of different contents such as sports' practicing or movie trailers. The video which presented the higher variation between high- and low-arousal sequences consist of a long ski practicing record (i.e. the high-arousal peak correspond with a ski jump), and their scenes were used to design the three 20s spots used

as experimental conditions in the field and lab studies. A fictitious brand name was added at the end of the ad to avoid brand familiarity bias, in agreement with the common practice in advertising research (Cauberghe and De Pelsmacker, 2008).

### **3.2. Field study**

To initially explore the effect of different arousal ad design patterns on ad effectiveness, we carried out a real advertising campaign in Google AdWords. Statistics provided by Google AdWords campaigns are very limited to obtain ad effectiveness indicators. Thus, we used the TrueView format option, that is, the ad start to be displayed, and users decide whether to watch or to skip the ad after the initial five seconds. This way, we obtained the percentage of users who watched each of the three ads. This indicator could be considered a proxy variable of advertising effectiveness, as far as it reflects the level of likeability or acceptance of the ad, as suggested by previous studies in similar contexts (Puccinelli et al., 2015)

Following this scheme, the three spots of our advertising campaign were randomly presented to a sample of 5619 YouTube users of both sexes and aged from 18 to 65, with no further segmentation variables included. Results indicate that 55% of users complete their watch of the high-arousal start ad, while only 35% and 34% of users watch the high-arousal ending and the low-arousal ads respectively ( $\chi^2 = 147.15$ ,  $p < .01$ ). Against our proposition, the inclusion of the high-arousal ending does not achieve a great level of ad views. However, the inclusion of a high-arousal start increases the percentage of users that accept to watch the video in at least a 20%. This finding may be due to the skippable format chosen for the field study, in which the design of the initial time seems to be crucial. Considering this issue, we recognized that the main study should test the proposition in both skippable and non-skippable video ad formats.

### **3.3. Main study**

For the main study we expect to recruit 240 graduate and undergraduate students. The study will be carried out in a lab with individual computers and headsets. Participants will be randomly assigned to the six conditions of the 3 (high arousal start, high arousal end, low arousal design)  $\times$  2 (skippable, non-skippable format) experiment.

In contrast to the field study, we will rely on ad effectiveness scales usually employed in advertising literature such as the attitude toward the ad scale (Lau-Gesk and Meyers-Levy 2009), and brand attitude (Huang et al., 2013), and ad intrusiveness (Li, Edwards, and Lee, 2002). Brand recall will be measured by a direct question asking the name of the announced brand (Kelting and Rice, 2013). In addition, arousal manipulation check could be reassured by traditional arousal scales used in consumer behavior literature (Shapiro and MacInnis, 2002).

## **4. Expected findings and discussion**

This work in progress aims to explore the relevance of including high-arousal stimulus in standard advertising video broadcasting conditions. First, we rely on a neurophysiological pretest to select highly and lowly arousing video sequences to be used in the research. By doing so, we contribute to a progressive inclusion of neurophysiological (pretest) and

traditional (self-report) techniques, together with current online research methods (field studies) in academic marketing for a more complete understanding of consumer behavior.

Previous research suggested that a high arousal ending would be more effective than alternative ad designs. However, results of the field study indicated that a highly arousing start is more attractive to users, as far as the percentage of users accepting to watch the ad is higher than the other scenarios. This finding opens a debate about whether the effectiveness of high arousal ending design is challenged in the online context. We expect that the main study (lab experiment) could solve this issue, and would help to test whether advertising effectiveness of different arousal patterns may depend on arousal placement or on advertising format (skippable vs non-skippable); with an special interest in finding interaction effects. This research also aims to advance on the understanding of new interactive ad formats in social media. New advertising patterns different from those traditionally used could be required depending on advertisers goals (e.g. ad attraction or brand recall), underlining the need for further research on this field.

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