

SOCIO-COGNITIVE AND BEHAVIORAL APPROACH IN HISTORICAL ADVERTISING: CONTRIBUTION OF THE VARIABLE IMPORTANCE OF CLEANLINESS

Koumparelis A, Halkiopoulou C, Antonopoulou H & Gkintoni E

Research Scholar, Department of Digital Media and Communication, Ionian University, Greece

Research Scholar, Entrepreneurship & Digital Innovation Laboratory, Department of Management Science and Technology, University of Patras, Greece

Research Scholar, Entrepreneurship & Digital Innovation Laboratory, Department of Management Science and Technology, University of Patras, Greece

Research Scholar, Entrepreneurship & Digital Innovation Laboratory, Department of Management Science and Technology, University of Patras, Greece

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ABSTRACT

The chronological order and analysis of Greek print detergent advertisements in this article, aims to provide an elaborate model of observation of detergent advertisements and, in particular, their displacements in the period between 1902 and 2019. The empirical material of the study is composed of 300 detergent advertisements based on their use. The chronological tracking of advertisements is intended to capture the shifting of detergent products and, consequently, changes in our perception of cleanliness. The collected data of Advertisements are analyzed and transformed to assume suitable form for the execution of the respective machine-learning algorithms provided by the Google Vision API that detect objects and faces, read printed and handwritten text and build valuable metadata for further data analysis.

According to theorists, this type of advertisements refers to the organizational principles of everyday life as well as the practices of symbolic construction of social life, but it aims at the underlying cultural meanings, as its overall work refers to religious phenomena and ritual symbolic systems, for which it would be very difficult to find their correspondence with ads for detergents. Additionally, the previous analysis of this type of advertisements can be studied upon the theoretical framework of Maslow's model which focus in hierarchy of needs as indicated in the pyramid from the lower needs (physiological, security) to the higher needs (social, esteem, self-actualization). Cleanliness beyond practical needs can also fulfils the need of one's sociability, so can be characterized as a need that is combined to others.

KEYWORDS: *Cognitive Science, Historical Advertisements, Visual and Textual Diversity, Visual Retrieval, Google Vision API, Data Analytics*

INTRODUCTION

The Theoretical Implications of the Study

On a theoretical level, consumer products, and detergents, are being approached here from the point of view of marketing and advertising. The three theoretical approaches briefly developed here offer three different views of the advertising phenomenon. The first one is that of Kotler's "levels", the second of Gutman's mean chain theory, and the third of the consumer's "involvement" with Rossiter's product and Percy. Let's look at them more thoroughly one by one.

Regarding the theory of "levels" of a product, Kotler distinguishes five levels of "placement" in the mind of the consumer: 1) the "core benefit" of the benefit resulting from the "idea" "The need covered by the product; (2) the " basic product "(3) augmented product ", which refers to those features which characterize it; exceed the expectations of the consumer, 4) the 'expected product', which concerns the excessive (5) "potential product", which relates to the extra features and services of the product which may be not be necessarily related to the basic need they cover, for example, a gift-this level is a sub-level of the "expanded product".

Gutman's "mean chain theory" theory shows how advertising manages the communication of a product strategically to differentiate it from competition. More specifically, Gutman investigated the accentuations and correlations between a) attributes concerning the solid and tangible characteristics of the product (color, purity, texture, packaging, quantity etc.); b) of "benefits" refers to the contribution of the product to consumer satisfaction as well as to the socio-psychological consequences of its consumption; and (c) the "values" of inappropriate, higher degree of consequences; and the results obtained from consumption of a product such as, for example, the contribution of the product to environmental protection.

The theory of consumer and product involvement by Rossiter and Percy examines the relationship between "market incentives" and "price levels" of products, which they explore in two cross-sectional axes of importance. The first concerns the "positive" or "negative" market motive of consumer products and, secondly, their "market risk" in relation to their high or low price. On this basis, Rossiter and Percy built a four-quartered quadrant (grid) of potential quadrants (see Table 1), in which the products are divided into (1) "high-mix products with a positive market incentive"; (3) "low-moiety products with a negative market incentive" and (4) "low-mix products with a positive market incentive". In this "matrix", detergents are considered low-mixing products with a negative market motive.

By studying a large number of TV ads, Rossiter and Percy concluded that for pre-mix products, preferences (that is, advertising messages) fall under the "think," "learn," "feel," "act," and low-mixing products the preferences fall under the "act", "feel," "think," "learn," sequence. In this context, they found that high-mix advertising rhetoric uses "information" messages, i.e., information-based messages, while for low-mixing products it uses "mutational" messages, i.e., messages based on the description of the experiences and impressions designed to change the consumer's opinion on the product.

METHODOLOGY

The Method of Analyzing Empirical Material

Notwithstanding these three theoretical approaches to the phenomenon of advertising, the study of empirical material consisting of 264 print advertisements, covering the period from 1902 to 2016 is not in the light of these considerations. However, the decision not to use them does not mean eliminating them from the study, but limiting them to fragmentary references, in the context of a search that correlates their use to different periods of the total length of the empirical material.

The way in which the empirical material of the study is examined is that of Berelson's "content analysis", where the measurement units are both words (sentences) and images. Against this background of intent, advertisements are perceived as spotlights expressing consumer practice and thus the relation of words and images with society in each particular period of the total time covered by the experimental material of the study.\

Figure 1 shows In addition to the above method of analyzing specific empirical material, modern classification algorithms were applied through the use of the Google Cloud AutoML Vision platform. Google Cloud AutoML Vision simplifies the creation of custom vision models for image recognition use-cases. The concepts of neural architecture search and transfer learning are used under the hood to find the best network architecture and the optimal hyperparameter configuration that minimizes the loss function of the model.

Figure 2 shows Google Cloud AutoML technology helps us to categorize and classify new archive material outside of the existing ad foundation and recognizing objects for further analysis. The aim of this project is to create an optimal ad recommendation based on annotation, for use by professionals in the field of product advertising. With the help of the Vision API, we classify images into thousands of predefined categories, detect individual objects and faces within images, and finds and reads printed words contained within images.

By customizing the API Vision Google, we sort the cleaner ads into predefined categories by detecting individual objects, faces and words contained in the images



Figure 1: Detergent’s Database Sample.

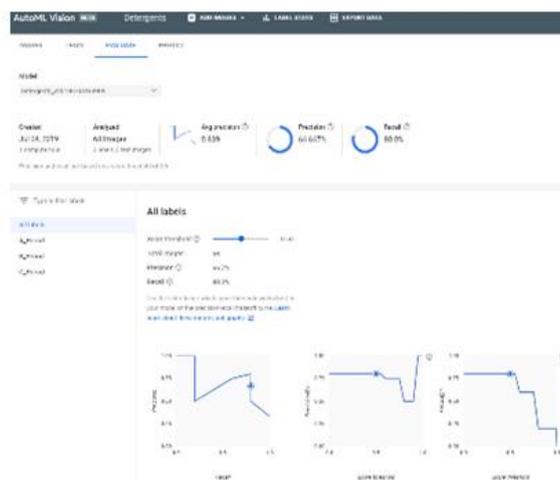


Figure 2: Evaluation Model.

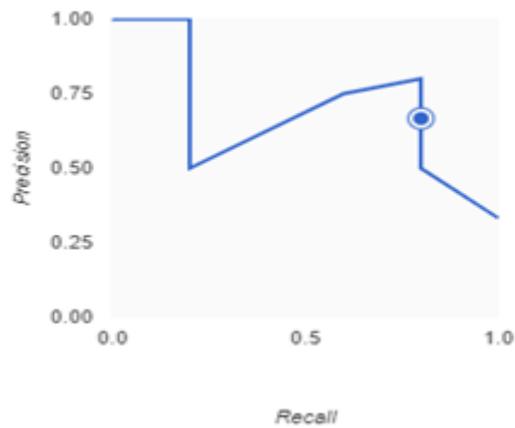


Figure 3: Precision Score.

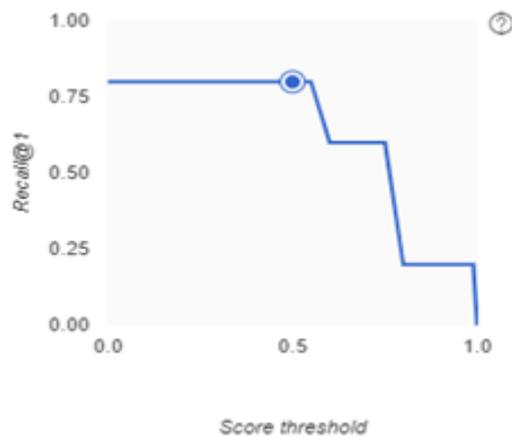


Figure 4: Recall Score.

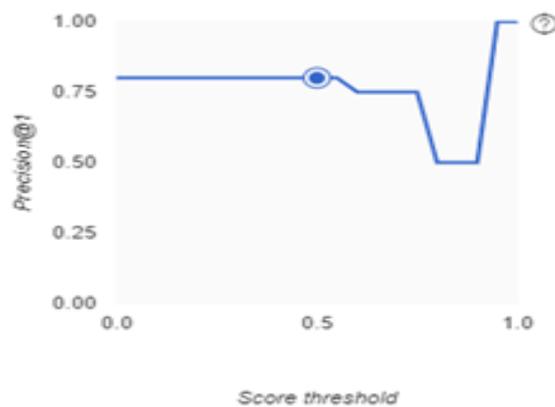


Figure 5: Threshold Score.

Score Threshold

The score threshold refers to the level of confidence the model must have to assign a category to a test item. The score threshold slider in the UI is a visual tool to test the impact of different thresholds for all categories and individual categories in your dataset.

Precision and Recall

Precision and recall help to understand how well the proposed model is capturing information, and how much it's leaving out. Recall tells us, from all the test examples that were assigned a label, how many actually were supposed to be categorized with that label.



Figure 6: Detergent Model Alpha.

RESULTS

The re-Labeling of Detergents

As can be seen from the tracking of the development of detergent advertising over time, their emergence is fully intertwined with the available washing technology of every season: jars, pots, washing machines, and cleaning products themselves. A second factor that changes the perception of cleanliness is the entry of chemistry into detergents, where from the cleanliness of "surface" we gradually move to "cleanness" of depth. In the same direction of change, the biological effect of detergents also affects their ecological emergence as well as the consumer's consciousness in dealing with the relation between the debris and the environment. In this context of influences, observing the shifts in the emergence of cleaning products, the history of detergent consumption is divided into three periods, each characterized by another consumer relationship with the "characteristics", "benefits" and "values" Related to these products.

These Three Periods are:

- The hard times of the hand: 1900 to 1965,
- The mid-season of washing and hand: 1966 to 1985,
- Washing and detergent season: 1990 to 2016.

The Hard Age of the Hand: 1900 to 1965

From the beginning of the 19th century and up to the '40's, the ads of cleaners (the term detergent is later) is dominated by the documentary of the woman wearing the head "fagioli" (sometimes also tsemperi, if it is a province) that scrubs clothes and utensils on the boat or in the kitchen). The realistic depiction of the woman (painting or sketch) lasts about half a century and disappears completely in the 1950s, where the woman from a scrub worm transforms into a joyful royal housewife (no longer a scruff) who spreads clothes outdoors. The face of Her face and the effect of her cleanser-detergent.

At the end of the 1960's the "traditional era" of cleanliness is over. Advertisements leave the housewife's realistic depiction of the housewife and propose an idealized pattern, that of the woman who is unhappy with the toil and the process of cleaning. If you ask "traditional era" women who does not work, but stays and takes care of her home and children in those era, , on what work she's doing, she will answer you "home".

The emergence of the brand value and the cleanliness process has now shifted to the product's efficiency and impact on the object, which is both "miraculous" and "magical" or "magical" effect, a branding effect on it now constitutes and symbolizes the abolition of effort. The transition to aesthetics of the glitter wants the housewife female and female wants her elegant, smiling, midwife and blonde like American. The appearance of Donald - Walt Disney cartoon - is indicative of the influence of American cinema in the 1950s and 1960s.



Figure 7: 1939.



Figure 8: 1957.



Figure 9: 1959.

The Mid-Season of Laundry and Hand: 1966 to 1985

We are still in the age when the Greek script dominates the product nomenclature, but also in the time of the foreign name branding, which is written with a Latin alphabet even numbers - also appears in the field action cleaner Z 14 (Picture). The risk escapes from the purity or purity of the cleaner and is now installed in the area of parasites and microbes. Cleanliness is enriched by the element of "disinfection".

A second point of accent is the positive effect of the detergent on the housewife's hands and on the clothes she protects: ROL 07 gives "plush hands" acting like an "invisible glove" like SYD (picture) "with active lanolin. If you are interested in your hands "- see the USP differentiation. The same "idea", five years later, develops the AVA, pretending with the phrase "a cosmetic in your kitchen".



Figure10: 1963.



Figure 11: 1965.

The Washing and Condensing Season of the Detergent: 1990 to 2016

At this time, advertising makes use of Williamson's "Reporting Systems". The most famous of which is nature, its fragrances and everything that refers to plants and flowers and the relationship of man to nature.

In the same sense, there is an emphasis on emotions with the consequence of inventing love-brand practices that have an intense element of sensitivity and love: "a lively freshness with a spring feel of blooming wildflowers for those you love" and "give it your love "- thank you mom "(Picture).

Observing the succession of accents in the third period, we find that molecular, chemical and microbiological objections are becoming more and more emphatic, claiming their attention, admiration and agnostic acceptance more and more often.

In the context of classical product projection and integrated communication strategy, advertisers focus on redecorating the social face of the company and the brand of the product. Corporate Social Responsibility (CSR) campaigns add a brand-new branding. Being aware of the damage caused by chemical wastes of cleaning, and also aware of the generally destructive impact of consumerism on the environment, brand advertisers express ecological sensitivities and undertake corresponding actions.

Towards the end of the 20th and the beginning of the 21st century, we have now gone into the era of Smart Products: smart cars, smart phones, smart TVs and, of course, smart detergents that wash on their own, which are small in their size (tablets) and totally focused on stains. At this time, the element of interpersonal and other techniques related to the function and rhetoric of the language is more easily distinguished than before.



Figure 12: 1995.



Figure 13: 2001.

CONCLUSIONS

As we have seen from the analysis of the content of the ads that make up the experimental material of the study, the development of detergents is mainly based on their effect. It is also completely interwoven with the available washing technology of each season. An important factor that changes the perception of cleanliness is the entry of chemistry into detergents, where from the cleanliness of "surface" we gradually pass to cleanness of "depth". In the same direction of change, the biological effect of detergents also affects their ecological emergence as well as the consumer's consciousness in dealing with the relation between the debris and the environment. Throughout this period of impact, we have noted with interest the shifting of cleaning products by making interesting conclusions about advertising and marketing as well as

using the Google Cloud AutoML platform to create an end-to-end advertising classification model.

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