

Escola de Engenharia

Semana da Escola de Engenharia October 24 - 27, 2011

THE CUSTOMIZED OUTDOOR: AN ENVIRONMENTAL APPROACH

Fernanda Viana¹, Jorge Neves¹ and Francisco Mesquita²
Department of Textile Engineering¹ and Human and Social Science College of University of Fernando Pessoa²
E-mail: fviana@ufp.edu.pt

KEYWORDS

Customized outdoor, textile printing, environment, biodegradable.

ABSTRACT

This paper focuses the large street posters and the environmental. We proposed an analysis based on changing the visual contrast of sixteen outdoor ads. So, the visual impact, visibility, legibility and visual perception are carefully study because because it is important to preserve the same contrast presented on the original outdoor ad. Not only we reduced the printed area for an half but, it was also possible to maintain or even improve the visual contrasts of the elements present on the advertisment.

CUSTOMIZED OUTDOOR: A BRIEF REVIEW

In the vast diversity of outdoor advertising types, it is our interest only the ones which are designed and produced according to specifications of a certain space. In this context, these particularly images establish like a dialogue with the space in which they are placed on and, usually reach several douzens of square meters. (Viana 2009). Due to their ability of adjusting to the space they are placed on, we called Customized Outdoor or Customized Billposter. (Mesquita 2006).

ENVIRONMENTAL IMPACT

With the focus on the Customized Billposter, we are not only interested on studying the environmental impact of such images but also suggesting an ecological and harm free solution. Considering its properties, like high physical-strength, elasticity and print quality, the polyester fabric coated with PVC (Polyvinyl Chloride) resin is the most common material used to produce it. Furthermore, it is the one which presents the most appropriate conditions for an outdoor application. However, the products resulting from the deterioration are highly toxic. (Mersiowsky 2001). This situation is further aggravated by some inks used on advertising printing cannot be decomposed by the action of microorganisms present in nature. In fact, the environmental

impact of outdoor ad is not restricted to the media; also inks are indicated by its negative consequences likewise, the raw materials involved in its production and the emission of volatile organic compounds (VOCs) during the print process are responsible for many atmospheric problems such as acid rain. (Magdassi 2010), (Freeman 2000). Nevertheless, the European Community and several governments had been making efforts to discourage and also to forbid using materials with bad consequences for the environment as well as for the human health.

Unfortunately, we still see that the approach of the Costumized Outdoor is far for being ecological. (sa 2000), (EUR-Lex *online*).

Thinking Green

Environmentally friendly alternatives should be seen as an obligation for everyone involved to the creative process. For this reason, we presented a graphic-design solution supported by a comprehensive study based on the analyses of the billposter visual message. To go along with this study, we took pictures of sixteen Customized Outdoors placed on facades and gables in Porto city, using a 50mm lens. In order to minimize their environmental impact, we attempted to reduce their printed area.

Guidelines to the Creative Process

So, how did we make it? We changed the original background colour to white, which are the same colour of the printing media. However, without interfere in the visual perception of the structural contents. Of course, this led us to study the background and foreground colour relation, taking to account on different graphic elements in the ad. So, we considered three important issues:

- 1. The background colour is removed;
- 2. The white graphic elements are changed to the original colour used on the background;
- 3. The visual content is maintained as it was in the original ad.



Escola de Engenharia

Semana da Escola de Engenharia October 24 - 27, 2011

Due to understanding the consequences of these conditions we asked about the visual message in both ads: original and proposed. Consider not only professionals; but also students in the final year of their graduation in the fields of communication we questioned about 1232 individuals. They were questioned about visual impact, visibility, legibility and visual perception on both billposter ads. In addiction to minimize the environmental impact it wwas possible to have good results in the visual contrast of the proposed ad. To summarize, the proposed outdoors had superior average than its original (see, table 1).

Customized Billposter	Visual contrast variables \overline{x}			
	Visual impact	Visibility	Legibility	Visual perception
Original (A)	3,42	3,34	3,54	3,54
Proposed (B)	3,94	4,22	4,11	4,16

Table 1: Average of visual contrast variables.

A BIODEGRADABLE SUBSTRATE FOR CUSTOMIZED OUTDOOR

Considering the importance presenting on environmental friendly alternatives, we propose a solution that can minimize the damage caused by the products currently used for printing outdoor ads. Textile substrates produced by raw materials available in nature, as a result of the development of a biodegradable support for advertising purposes with similar characteristics to the polyester fabric coated with PVC resin. Attended to the ephemeral nature related to the outdoor, it's not necessary the use of high strength materials, which contribute to the maximization of the environmental problems we confront every day. The biodegradable textile solution developed fulfils the requirements needed to an application for outdoor advertising without cause any damage on nature. Considering the value of environmental friendly alternatives, we are developing a product which can minimize the damage caused by the products currently used for printing outdoor ads. In this context, we use textile substrates produced by raw materials available in Furthermore, the biodegradable media in development for advertising purposes have similar characteristics to the polyester coated-PVC. Attended to the ephemeral nature of the outdoor, it is not necessary to use high-strength materials, which contribute to the maximization of the environmental problems, we confront everyday.

We truly believe the biodegradable textile solution in developing fulfils the requirements needed for outdoor advertising applications without cause any damage to the environment.

CONCLUSIONS

Based on our approach, it was possible to reduce the environmental impact of the advertisements, particularly on Customized Billposter, as well as maintaining or even improving the visual contrast of the message. According to this, having an ecological position during the creative process should be considered.

Related to an harmfree solution, it is in progress a biodegradable media, which can replace polyester-coated PVC. Moreover, it can be complied with the legislation of several countries, which forbids the use of non-biodegradable materials for advertising purpose.

REFERENCES

EUR-Lex [online]. Available http://eur-lex.europa.eu/pt/index.htm [Consulted in 04/07/2011].

Freeman, H. S. et al 2000. "Colorantes for non-textile Applications", Amsterdam. Elsevier Science

Magdassi, Shlomo 2010. "The Chemistry of Inkjet inks". World Scientific Publishing Co. Pte. Ltd.

Mersiowsky, Ivo 2001. "Fate of Plasticised PVC products under landfill conditions: a laboratory-scale landfill simultaion reactor study". In Wat. Res. Elesevier, Vol.35, n.13, 3063-3010

Mesquita, F. 2006 ."Um processo completo para resposta rápida e personalizada [na] estamparia digital de grande formato: uma abordagem à publicidade e exterior". http://repositorium.sdum. uminho.pt/browse?type=author&value=Mesquita%2C+Francisco+Manuel+Morais.

Viana, F 2009. O Outdoor personalizado na cidade do Porto: uma análise face à sua localização. https://bdigital.ufp.pt/dspace/bitstream/10284/1069/3/fernanda_viana ribeiro.pdf/.

s.a. 2000. "Livro Verde: Aspectos ambientais do PVC". CCE

AUTHOR BIOGRAPHY

FERNANDA VIANA was born in Porto and she is developing her Phd at Engineering School of University of Minho. She went to the University of Fernando Pessoa where she studied advertising and obtained her degree in 2003 and her MA in marketing and advertising in 2009. Furthermore, she teachs there also works in the Communication Agency. Research interests are in the field of outdoor advertising. fviana@ufp.edu.pt and http://fviana.ufp.edu.pt/.