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Dollars and Sense of Google Ads within Blogs*

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Summary. Google AdSense text ads are a popular way to advertise in blogs. In addition to the benefit for the advertiser, blog creators are able to generate income from featuring Google Ads within their blog. Google has recommended several tips regarding location and color scheme for these ads; however, more empirical evidence is needed to insure optimal design. The purpose of this study was to determine the most favorable placement and color scheme for AdSense ads. Results from recognition questions suggested more information is remembered with a high contrast color ad. Implications of these results to ad design are discussed.

INTRODUCTION

Blogger was acquired by Google in 2003, and shortly thereafter blog creators were given the option to include Google AdSense text ads within their blog. Both text ads and blogs have quickly become popular among internet users. AdSense is a free, contextual advertising solution for web publishers of all sizes (www.google.com/adsense). Blogs are a rapidly expanding category of collaborative online communications. Technorati (2006) estimated that 175,000 new blogs are created daily (as cited in Li, Xu, & Zhang, 2007). Of the internet users in the United States, 8% have created a blog and 39% read blogs (Xu & Resnick, 2007).

AdSense ads use a pay-per-click or cost-per-1000-impressions system. Google charges advertisers based on the frequency that their ad was clicked, and if the ad is clicked within a blog, then the blog creator would receive a portion of the revenue (Arora, 2008). However, the biggest challenge is generating enough activity to make the advertisements worthwhile. Blog creators who use AdSense have control over basic design decisions, such as color and location, regarding ads that appear in their blog. These design decisions can influence the saliency, and potentially the effectiveness, of the AdSense ads (Google AdSense Blog, 2008).

Google offers design tips based on color and location. Figure 1 shows examples of color combinations within a blog, and Table 1 shows recommendations for which color combinations should be used in certain situations. The blend technique refers to using the same color for the ad border and the blog background. The complement technique uses colors that exist within the blog, but which do not match the border of the ad or the background color of the blog. The contrast technique uses colors that do not match existing colors on your blog and is recommended only for blogs with dark background colors (Google AdSense, no date, A).

Figure 1. Three color techniques that Google recommends for optimal AdSense ad presentation: blend, complement, and contrast (Google AdSense, no date, A).

Table 1. Recommendations for which color technique should be used, based on ad placement and background color.

	Ads within content	Ads adjacent to content
Light background behind ads	Blend	Blend or complement
Dark background behind ads	Blend, complement, or contrast	Contrast or complement

Location of the AdSense ad is also an important factor. Google provides a "heat map" of placement choices and performance. The best placement is represented by the dark orange area, while the worst choice is represented by white areas (see Figure 2). Placement above the fold is generally a good strategy (Google Adsense, no date, B). Rowse (2008) also states placing the ad at the top within the content is best, based on generated revenue.
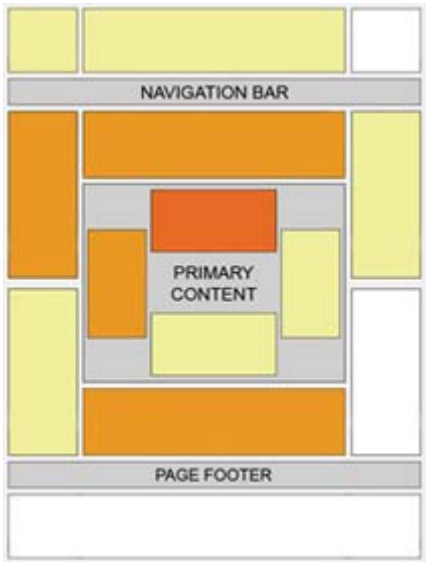

Figure 2. Heatmap by Google which suggests the performance of ads based on their placement in a web page layout (Google AdSense, no date, B).

Purpose

Since the trial-and-error of color and placement decisions may take a long time to determine which combinations affect revenue generation, it would be beneficial to identify which ad manipulations are most noticeable. This study attempts to provide empirical support for the Google recommendations regarding color and location of AdSense ads within blogs.

METHOD

Participants

Ninety subjects participated in this study (56 female and 34 male). Most were in the 18–29 age group (N = 71). Sixty-one percent were students who received course credit for their participation.

Blog Experience

Forty-three percent of subjects visited blogs at least a few times per week, 40% visited blogs less frequently, and 17% reported that they had never visited a blog. Of those who had visited blogs, most reported that they generally visited entertainment (n = 38) or personal blogs (n = 39). Other blog categories were reported less frequently: political (n = 13), sports (n = 12), technical (n = 10), and business (n = 8).

Materials

A Pentium Core 2 Duo PC with a 96 dpi 17" monitor running at a resolution of 1024 x 768 pixels was used. The monitor was integrated with the Tobii 1750 eye-tracking system running at 50 Hz, and ClearView[TM] 2.7.0 software, which was used to detect and collect participant eye-gaze data.

Both the initial background questionnaire and the post-survey questionnaire were created using SPSS MrInterview, version 3.5. A blog page was created with Blogger. Content of the blog centered around the entertainment industry involving movies and television. Blogger was also used to create the three 200 x 200 pixel AdSense ads. The ads contained the same content and layout, however, the ad color was either high contrast or low contrast relative to the blog background (see Figure 3 for examples). There were two ads for the low contrast condition; one matched a white background and the other a gray background. The ad was placed in one of three locations on the blog page: above the content, within the right column, or below the content (see Figure 4).

Figure 3. The low contrast ad (left) and the high contrast ad (right).

The flames of piracy are hard to extinguish, they are ablaze around the globe, with no signs of dying anytime soon. It appears a gang of 5 Hollywood studios have formed Voltron to battle C.H.I.N.A (the pirate robot). We get news of this altercation from the musky caves of Yahoo:

Five Hollywood studios have sued a Chinese online service and internet cafe they accuse of offering pirated downloads of "Pirates of the Caribbean" and other hit films, state media reported on Thursday.

Beijing-based Jeboo.com and an Internet cafe in Shanghai face a legal showdown with Twentieth Century Fox, Walt Disney, Paramount Pictures, Columbia Pictures, and Universal Studios, the Xinhua news agency reported. The film-makers allege Jeboo.com created software the cafe used to run a movie download business, and they are demanding 3.2 million yuan ($432,000) in compensation, Xinhua said.

The streets of China are filled with ripped DVD's, CD's and whatever other formats people will buy. It is a booming business and it is no surprise to see pirated product being sold online. The demand is huge and theft is always the best way to get a deal. Fighting piracy in China is like trying to vacuum the desert.

The studios are doing the right thing by going after the companies and not the individual fans. You should always try and work with people that enjoy your product, even if you do not like how they got it. As bad as the problem is, they should be happy that people enjoy their work - they may simply have to find new ways to move their product if people are changing their habits.

I am certain these types of cases will be going on long after I am dead. Studios have a tricky time ahead in China, the piracy is rampant but the market is exploding. These 5 will need the wisdom of Solomon as they continue on in their battle.

⇒ Posted by Moe at 11:40 AM 4 comments ✎

□ Thursday, November 9, 2007

Strike Talks Resume

With some of America's favorite television programmes pushed off the air and high-profile film projects biting the dust, Hollywood's studio bosses and network chiefs will return to talks this week to try to end a two-week writers' strike that has hit them harder and faster than they anticipated.

The studio brass initially said they would not consider a return to talks as long as the strike persisted, but they changed their tune when it became clear that Hollywood's 5,000-odd writers in regular work were standing firm to shut down late-night chat shows, dramas, comedies, daytime soap operas and - if the dispute is not resolved soon - the next round of new shows that would ordinarily start to shoot in January.

⇒ Posted by Moe at 1:23 PM 7 comments ✎

Side panel:
January (2)
February (8)
March (1)
April (5)
May (1)
June (1)
July (3)
August (2)
September (4)
October (2)
November (2)
December (7)

Recent Posts

PlayStation Experience - the real Gaming, Action and Entertainment Expo kicks off

Apple settle Burst lawsuit for $10 million

Barbara Walters names her 10 most fascinating people for 2007

AD

AD

Figure 4. Three possible locations for the ads.

Procedure

Participants were seated in front of the monitor and calibrated. Only those who were satisfactorily calibrated were allowed to proceed (N=64). At the beginning of each session, participants completed a short demographic background questionnaire.

Participants were then shown an image of a blog page and asked to browse it as they would normally, without a time limit. They were also told that they would be asked questions about the blog's content when they were finished browsing. Eye movements to the various areas of interest (AOIs) on the page were captured, as well as fixation times at each AOI. The presentation of ad location (top, right or

bottom) and level of color contrast (low or high) were counterbalanced.

After the participants indicated that they were finished viewing the blog page, they were asked to complete a post-survey questionnaire. The questionnaire contained one recall question of whether there were any ads; if participants answered yes, they were prompted to answer five recognition questions concerning the advertisements:

1. What were the advertisements about?
2. How many advertisements were there?
3. Who sponsored the advertisement?
4. Identify the ad?
5. Where was the ad located?

The first three questions were multiple-choice questions with 3 distracter questions, including "was there a blog archive?" and "what was the theme of the blog?".

When asked questions regarding identification and location of the ad, participants were presented six versions of the ad, one which was actually used in the study and five other distracters.

RESULTS

Recall and Recognition

Approximately 71% of participants correctly recalled there was an ad. A chi-square test for independence was conducted to assess whether there was a significant relationship between location and color contrast based on the recall question of whether there was an ad. The dependent variable was the number of participants who correctly responded "yes". Chi-square results were not significant for the correct number of responses of whether they remembered seeing an ad. A chi-square was also conducted for both location and color contrast; neither variable showed a significant effect.

A two-way ANOVA was conducted to assess the total number of correct responses to the recognition questions (number of ads, content, sponsor, identification, and location). The sum of these questions provided a score that indicated how much the participant remembered from the ad. The range was from 0 to 5; a higher score indicated better recall of the ad. Results indicated that there was a significant main effect for color contrast, $F(1, 64) = 10.03$, $p < .05$, $\eta^2 = .15$. The effect of location and the interaction between location and color contrast were not significant. Table 2 lists the mean and standard deviation for the number of correct responses to recognition questions across all conditions.

Table 2. Means (SD) for the number of correct responses to the recognition questions (0 to 5, with 5 being the most correct). Recognition of the ad was significantly higher for the high color contrast condition when compared to the low color contrast condition.

	Top	Right	Bottom	Total
High Contrast	3.00(1.05)	2.85(1.28)	3.11(.60)	**2.97(1.03)**
Low Contrast	1.85(1.34)	2.33(1.50)	1.90(1.10)	**2.00(1.29)**

Eye Tracking Analysis

A two-way ANOVA indicated that there was a significant main effect of location for the number of fixations, $F(2, 66) = 4.46$, $p < .05$, $\eta^2 = .13$. Post hoc comparisons revealed there were significantly more fixations on the ad when it was located in the top position than the bottom position. The main effect of color contrast, $F(1, 66) = .10$, $p > .05$, $\eta^2 = .01$ and the interaction, $F(2, 66) = .25$, $p > .05$,
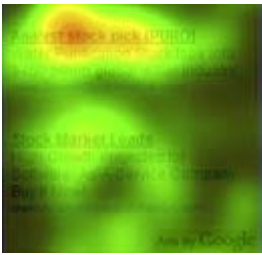
$\eta^2 = .01$ between the two variables were not significant. Table 3 lists the mean and standard deviation for the number of fixations across all conditions.

Results for number of fixations are also shown graphically by heatmap (see Table 4). Red areas indicate the most fixations, green areas indicate few fixations, and gray areas indicate no fixations. Notice that the high contrast ad located at the top had the most fixations as shown by the red and yellow patches.

Table 3. Mean (SD) number of fixations across the six different conditions. Bold indicates the means that were significantly different.

	Top	Right	Bottom
High Contrast	9.58(9.49)	4.50(3.99)	4.33(5.01)
Low Contrast	6.80(6.44)	5.70(5.25)	4.18(4.73)
Total	**8.31(8.18)**	5.04(4.53)	**4.26(4.77)**

Table 4. Heatmaps for each ad. Red and yellow indicate a higher number of fixations.

DISCUSSION

Results from this experiment show that the users had the highest recognition with the high contrast ad and the most fixations with the top location. A high contrast ad is recommended because regardless of the location, more information was remembered about the ad. This could have important implications related to brand building (Hollis, 2005; Lohtia et al., 2003). Using a high contrast ad to increase recall could make the ad more effective and lead to more clicks on the ad (Danaher and Mullarkey, 2003). Even though there were more fixations on the ad located at the top, it seems its saliency did not contribute to how well it was remembered. In fact, increased eye fixations in this instance simply may have been due to the primacy of information shown above the fold.

This study examined color contrast and location manipulations with AdSense ads within a blog context. Limitations include the lack of common web elements in the blog stimulus (e.g., videos and pictures) which might make it more difficult to notice the AdSense ad, as well as the limited focus of the blog content (entertainment) which may not have been interesting to participants. Future research should

focus on other factors, such as size, format and the addition of graphics or imagery.

*A paper based on this work can be found in the Proceedings of the Human Factors and Ergonomics Society's 53rd (2009) Annual Meeting in San Antonio, TX.

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