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Visual and textual appeals in banner advertising: A Content analysis

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Visual and Textual Appeals in Banner Advertising: A Content Analysis

by

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VISUAL AND TEXTUAL APPEALS IN BANNER ADVERTISING:

A CONTENT ANALYSIS

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Abstract

This study investigated textual and visual variables of banner advertisements. A number of

research questions were addressed by content analyzing banner advertisements from social

media and social networking Websites, including YouTube and Facebook. Implications of

linking types of banner advertisements to types of social media sites, including differences

between visual and textual content of banner advertisements, are addressed. Results indicate that

there were notable differences between banner advertisements found on these sites. Ads are more

likely to contain greater visual aspects such as animation on social media sites than they are on

social networking sites. Further studies should examine how visual and textual appeals affect

recognition and attitudes towards a brand or product.

Keywords: social media, social networking, banner advertisements, advertisement appeals,

content analysis

Visual and Textual Appeals in Banner Advertising: A Content Analysis

In this study, differences between banner advertisements on social media and social networking Websites are investigated. Does banner advertisement content vary depending on the type of Website? If so, how does visual content differ from textual content?

Banner advertisements are used to promote products and services to large audiences. However, advertising on the Internet, as with any other medium, may be faced with various obstacles. Specifically, banner advertisements may be overlooked or ignored if they are unable to successfully capture a consumer's attention. Consequently, companies use an array of textual and visual appeals to make their advertisements more attractive. Two distinct types of banner advertisement appeals are those that contain moving images, such as animation, and those that can be categorized as still, and contain no animation.

The present study explores types of banner advertisements and the ways in which advertisers use both textual and visual appeals. According to the uses and gratifications theory, viewers consciously make choices about what media they decide to view based upon their needs and interests (Norman, 2003). If advertising practices support this theory, banner ads would differ across websites. For example, consumers visiting social media websites such as YouTube are looking for more visual forms of entertainment; therefore, ads are likely to contain more visual appeals. Conversely, those who visit a Website such as Facebook are likely to be exposed to more text and read user profiles. As they socialize with others via text messaging, they may be exposed to banner ads with more textual appeals. Exploring previous research and existing information about banner advertisement content in general can reveal which content variables exist, and how to measure them. Creating exhaustive and mutually exclusive categories of banner advertisement content can provide a structured way to evaluate banner advertisements

between these two types of Websites. Analyzing visible differences and efficiently measuring them within those content categories could produce beneficial results.

Knowing the characteristics of banner advertisements typically used across different types of Websites can contribute to understanding advertising campaigns. If there is a difference in the amount of text commonly used for banner advertisements on social networking sites as compared to social media sites, advertisers might be better able to choose where to place their ads and whether they should be text or image-based. There are multiple variables involved in creating a banner advertisement, including the duration of animation, amount of text, or amount of visuals to use.

Research Questions

Banner advertisements on social media and social networking sites were investigated in this study. It may be argued that social networking websites can be categorized as social media Websites, but in this present study social networking sites, including MySpace, are representative of those in which users predominantly communicate and stay connected with others online. In contrast, social media sites, such as YouTube, are those that are based on uploading and sharing of media content, including audio and video.

Certain types of advertisements and their specific uses of textual and visual appeals have been examined. The forms of banner advertisements that are most recognizable and distinguishable are those that contain any moving images (i.e., animated) and those that are still (i.e., non-animated). The first research question was developed to investigate the differences between animated and non-animated banner advertisements on social media, social networking and e-commerce Websites.

RQ1: Are there any differences in the content and animation of banner advertisements

between social media, social networking, and e-commerce Websites?

Social media sites generally have visually appealing material, such as viral videos, so

banner ads on social media sites are more likely to contain animation than those found on social

networking Websites. Social networking sites act as a media for communicating with others who

are socializing or creating and maintaining Internet personas. Advertisers might opt to

communicate using the patterns of the users, employing more textual appeals and less animated

advertisements on these sites. To further explore differences between banner advertisement type

and content on social media and social networking sites, research questions two and three were

designed to explore the nature of these banners ads.

RQ2: Are there differences between the textual appeals made by banner advertisements

on social media, social networking, and e-commerce Websites?

RQ3: Are there differences between the types of banner advertisements (animated or still)

between social networking and social media sites?

All banner advertisements serve the same purpose, to attract consumers and encourage

them to click through and be exposed to the advertiser's Website or business. If user motives and

the type of Website both play a role in the type of banner advertisements (animated or still) and

types of advertising appeals that are employed, the following hypotheses are suggested:

H1: Visual appeals of banner advertisements on social media Websites and social

networking Websites will differ significantly in frequency.

H2: Textual appeals of banner advertisements on social media Websites and social

networking Websites will differ significantly in frequency.

Rationale

Social

At its heart, advertising is a form of communication that attempts to influence an audience. Advertising can have a positive effect on people by making them more aware of their options when they are looking to purchase a product or service. If advertisers can successfully target and influence an audience on a product or service they may desire, this would ultimately benefit both parties. One possible social implication of this study is that advertisers will be able to apply the results to better effect when determining banner ad content and Website selection. Banner advertisement research can assist online advertising campaigns and make a positive contribution to the consumer's Internet experience. This study will also help advertisers stay current with the growing need to identify with today's Web users and assess gaps in existing knowledge.

Scholarly

The results that this study provides can be used to improve the effectiveness and efficiency of related online advertising. The field of online advertising will only advance if research is in a continuous process of updating, extending, and refining. It was no surprise that the majority of the sources this researcher searched regarding studies involving banner advertisement content were conducted or published between 1999 and 2004. Coincidentally, Facebook, a popular social networking site, was created in 2004, and by 2006 alone it had 7.5 million members and was one of the top 10 most trafficked websites (Fernando, 2007). Although originally only available to college students, it became widely available in 2006, so over the recent past the number of members and traffic has risen substantially.

The scholarly contribution of this particular study is that it serves as more current analysis and research of marketing venues, such as banner advertisements, on the social media and social networking Websites of Facebook and YouTube. The emergence of these types of Websites has added to the volume and scope of the Web and created new factors to be considered for research. Previous research has revealed valuable information about advertisements on e-commerce sites, but if ads appear differently on social networking and social media sites, they may also be interacted with differently as well. This study will serve to confirm or deny whether ads differ.

Literature Review

The evolution of advertising before the World Wide Web was created can be seen across studies, which include print, display, and television advertisements. In attempts to conceptualize some early examples of evolution, one group of researchers compared how the style of magazine advertisements changed between 1969 and 2002. McQuarrie and Philips (2008) suggested that during this time period consumers' approach to these ads changed; consequently, advertisers changed their design and style accordingly. A content analysis was conducted to test their hypothesis. They used a sample of ads from nine editions of Which Ad Pulled Best (WAPB), a compilation of reported testing results of advertising efforts, published between 1969 and 2002; each edition of WAPB contained 50 full-page magazine ads.

The structures of early magazine ads were more textual and descriptive than recent ads, which contain mostly visual entertainment and less marketing information. This style of change reflects the way users have been exposed to more and more imagery and less textual content, with the advent of television and then more recently the Web. The results of this study confirmed McQuarrie and Philip's hypothesis, which assumed that visual and textual aspects of magazine

ad style changed over time. Picture-dominant ads were less effective early on within the time

period, and they became noticeably more effective by 2002. Ads with substantial body copy

were judged to be less effective over time (McQuarrie & Philips, 2008).

The power of visual elements within magazine advertisements may be related to how

viewing an image is less laborious than reading a product description. Images are simple to

process and easy to remember. That is why in outdoor display advertising, an experience that is

more often than not relatively brief, visual elements improve the appeal and speed of

brand/product recognition (Van Meurs & Aristoff, 2009). The amount of interaction for outdoor

ads and traditional print ads may not be very different. Studies have shown that magazine ads

only receive one or two seconds of attention; and visual aspects are the primary appeal because

only 2% of the written content is processed (Franzen 1994, as cited in Van Meurs & Aristoff,

2009).

In one study (Childers, Heckler, & Houston, 1986), 56 undergraduate students were

involved in a comprehensive experiment to describe the processing of the visual and verbal

components in print advertisements. Print advertisements are usually meant to influence those

purchasing decisions that are memory based; the target audience sees print advertisements while

they are not at the actual brick and mortar store, so advertisers try to make a lasting impression

about the product or brand. Therefore, the study proposed that images would resonate more for

those memory based purchases. These researchers hypothesized that the level of recall would be

greater for the pictorial component of the print ad than it would be for the verbal component. The

undergraduate students in the experiment were each given booklets and exposed to 10 test ads,

and then given a three-minute distractor task before they were instructed to record all they could

remember from the ads. The results supported the hypothesis that recall would be greater for the

pictorial component of the print ad than it would be for the verbal component. The students

recalled more product attributes from the picture than those stated in the verbal portion of the ad.

Since the advent of the World Wide Web, advertising dollars are being spent on online

ads at a rapidly increasing rate. In early 2009, global advertising expenditure statistics from

ZenithOptimedia forecasted that from 2007 to 2009, magazine advertising dollars will have

decreased a total of $57 million to $49 million per year, while online advertising dollars will

have increased from $41 to $54 million in 2009 and make up 11.3% of total ad spending in 2010

(ZenithOptimedia, 2009). ZenithOptimedia was correct that spending on Internet advertising

would increase, and they even underestimated its share of global spending; by 2009, 12.6 % of

global ad spending belonged to the Internet (Ives, 2010). The previously mentioned research

around print advertisements concluded that visual components are not only more prevalent in

recent advertisements, but may also be more effective. However, a 2008 survey by iPerceptions

reported that simple text ads were the most effective way to advertise online (as cited in Dysart,

2009). In the evolving world of online advertising, results might not be consistent.

Variables such as copy complexity play a role in advertising effectiveness as well as the

presence of visual and verbal components. When advertisers design their ads, they choose to

incorporate a certain level of visual complexity. The more elements within an image, such as

colors, the more visually complex it is. Previous research indicated that advertisements through

other media that were more visually complex generated greater audience attention and memory.

In a study dating back to 1972 about the effect ad complexity has on attention and memory,

research concluded that magazine ads which are more visually complex are looked at for longer

periods of time (Morrison & Dainoff, 1972). Furthermore, one of the experimental groups,

comprised of subjects who were told that they were participating in an advertising study, not

only looked at more complex ads for longer periods of time, but also remembered those ads

better (Morrison & Dainoff, 1972). A 1994 study on ad complexity with regards to music video

commercials showed that arousal levels were highest for visually complex ads relative to simpler

music video ads; complexity of the television ads were operationalized by scene changes

(Hitchon & Duckler, 1994). Considering previous research, Huhmann (2003) conducted a

content analysis of online banner advertisements and hypothesized that banner ads would contain

a greater degree of visual complexity than a moderate or lower degree. The content analysis was

comprised of 137 randomly selected banner ads limited to only one size (468 by 60 pixels) and

represented a wide range of product categories including electronics and pet care. The coding

process was developed to create a scale of visual complexity from high, moderate, and lower

levels. Ads were each given scores reflecting the amount of visual elements they contained. The

results did not support the researcher's initial hypothesis. The results showed that a moderate

level of visual complexity was most common (Huhmann, 2003).

Over time the Internet audience has been heavily exposed to banner ads. Diverse banner

advertising methods for improving response rates have been developed to assess online

advertising campaigns. A widely used measure for evaluating the effectiveness of banner

advertisements is the click-through rate or CTR – that is, the proportion of viewers who click on

a banner to visit the advertiser's Website (Hanson, 2000, as cited in Baltas, 2003). Fortunately,

tracking response rates on the Internet is not a very difficult task considering that response

information is electronically captured and accounted for through the ad serving process. There

are other methods for studying consumers' brand recall and their attitudes toward the

advertisement and towards the brand, but banner advertisement effectiveness is mostly measured

through CTR, and most commercial Websites that sell advertising space will quote a "click-through" rate in their rate cards (Chandon, Chtourou, & Fortin, 2003).

Since CTR is a behavioral measure that depends on a specific action, it cannot account for attitudinal changes. Arguments against assessing banner advertisements through click through rates concern CTR's inability to capture the full extent of effectiveness since it cannot account for certain effects that occur before or after clicking. However, it remains one of the most often used markers of advertising effectiveness because it considers that crucial role of the advertisement, that is to divert the attention of the guest and bring him or her to the advertiser's site (Chandon et al., 2003).

In the following study (Baltas, 2003), the effectiveness of selected advertising campaigns was measured by examining the CTR of a sample of banner advertisements. The researcher sought to observe the effect of creative and media factors on banner advertisements with a sample of 259 banner ads made available by 18 advertising and media agencies. Not only were visual aspects like banner size, animation, and the presence of a brand's name or logo evaluated, but textual appeal factors such as message length were also measured and accounted for.

Regarding animation, specifically the number of frames had multifaceted results. The more frames, or the more animated the banner ad was, the lower the click-through rates. This could be interpreted to mean that the amount of ad complexity may affect its effectiveness. Moreover, Baltas (2003) found that banners with lengthy messages and multiple frames (animation) received fewer clicks. Perhaps, those with more animation and larger message lengths may be overly complex and result in negative attitudes towards the advertisement. One variable that may have been overlooked in this study is that the complexity aspects of the advertisement, such as message length, could have different effects depending on the website on

which the ads are placed. Furthermore, this study also indicated that banner size had a positive

effect on its CTR, but the relationship was inconsistent. According to Baltas (2003), size does

matter and "bigger ads are more effective in attracting attention" (p. 508). In contrast, Cho

(2003) found no significant relationship between banner size and clicking. Specifically, people

with high product involvement were not affected by banner size because, for highly involved

people, the likelihood of clicking may depend more on product categories and/or message

arguments (Cho, 2003).

       Assumed levels of product involvement is only one aspect of consumer behavior that

may influence effectiveness of an advertisement. Perhaps more importantly, the impact of the

consumer motives prior to, and at the time of, being exposed to the advertisement could

determine which advertising appeals would be more effective. A number of studies suggest that

banner advertisement effectiveness may depend on consumer motives and that those banner ads

that complement the user's Web motives may be more effective (Rodgers & Thorson, 2000;

Rodgers, 2002).

       Consumer motives can be reflective of which Website they are visiting. For example, a

user who is visiting the official site of the National Football League (NFL) will have different

motives than a user who is visiting the Apple Computer Web page. There are numbers of

different types of Websites including social networking, e-commerce, and blog sites. Three

major types of advertiser supported Websites can be described as sponsor content sites (i.e., *Los*

Angeles Times), sponsored search engines (i.e. Yahoo), and entry portal sites (i.e., AOL) (Lee,

1998). As the World Wide Web has evolved so has the range of different types of Websites. In a

study by Lee (1998), 16 categories of Websites were selected for research including auto, health,

and shopping. From 100 Websites, Lee sought to investigate what kind of information came

from the banner advertisements on each site and how the information differed from one type of

site to another. This study concluded that on average, car-related Websites and electronics-

related Websites have the most informational cues, and banner advertisements usually contain

the following informational cues the most: graphic images, animated pictures or text, and words

to command click-through (Lee, 1998).

Websites that sell products or services are considered commercial sites. Advertisements

on commercial Websites are usually created to influence purchasing decisions. Appiah (2006)

tested the impact of multimedia ads on a commercial Website, specifically the effects of

testimonial advertisements. Testimonials generally consist of information regarding a satisfied

customer's experience with a brand or product. Responses to a commercial Website and a

product were analyzed for the presence of or the "richness" (i.e., audio/video vs. text/picture) of

the testimonial ads used on the site (Appiah, 2006). Three versions of the same Apple Computer

Web page for a specific laptop were designed for this study. Each had identical content except

that one page had testimonials with audio/video, one page had text/picture testimonials, and the

third had no testimonials. It was hypothesized that users would rate the commercial site and the

product with the audio/video testimonial ads more favorably than the sites with text/picture

testimonials ads, or no testimonials (Appiah, 2006). Using a 7-point semantic differential scale,

256 college students were asked to rate the product and the Website. The results supported the

hypothesis that attitudes towards both the Website and the product would be more favorable with

the use of multimedia testimonial ads rather than picture/text testimonial ads or no testimonial

ads (Appiah, 2006).

Another study involving a commercial Website explored the effects of two different

forms of online advertising, banner ads and pop up ads. In this experimental study, 128 surveys

were conducted to examine the negative effects of continuously animated banners and unexpected pop up ads (Ducoffe, Gao, & Koufaris, 2004). Although advertisers seek to positively affect and influence users, certain advertisements can negatively affect a user. Ads that are perceived as annoying, offensive or insulting can cause users to experience a feeling of irritation. In this study, 136 college students were randomly assigned one of four treatment conditions: a commercial camera Website with either the presence or absence of a continuously animated banner ad, and the same site with or without pop up ads. The participants each completed a questionnaire after visiting the site; responses were analyzed to gauge their levels of irritation associated with the ads and their attitudes towards the site. Both continuously animated banner ads and pop up ads created significant levels of irritation for the subjects, and both caused the subjects to perceive the site as more irritating.

Irritation, information, and entertainment are three variables of advertising value that Norman (2003) claims can be used to categorize online advertisements such as banner ads. Three types of banner ad designs created for this study were developed from content analysis of ads found on news Websites: content-specific, animated, and static. The news sites included *USA Today* and *The New York Times*; the majority of the ads contained a moderate number of words, most were static rather than animated. Ads for travel planning sites were the most commonly seen. The experiment contained similarities to ads on actual news sites.

The static ads contained simply text and graphics, animated ads contained moving images, and the content-specific ads were interactive with either drop down menus or text fields. To examine how the banner ad designs rate in terms of advertising value, each ad was put on a fictional news site and viewed by a sample of 221 students who then answered questions about the ads (Norman, 2003). It was hypothesized that animated banner ad designs would be

positively related to information and entertainment value, and static ads would be positively

related to irritation value. During the process of this experiment, it was found that the subjects

viewed entertainment and information in such a similar way that it was not possible to define

these variables separately, so an "infotainment" category was constructed. The animated ad

demonstrated significantly greater infotainment value than the static and content-specific ad,

which supported the hypothesis. The hypothesis that static ads would be related to irritation was

not supported by the results, since none of the ad designs was seen as any more or less irritating

as another.

In a study mentioned earlier, the hypothesis that banner ads would contain a high level of

visual complexity opposed to a moderate or lower level was not supported by the results. The

137 ads collected from the *Banner Ad Museum* (http://www.banneradmuseum.com) showed a

moderate level of visual complexity (Huhmann, 2003). Since the ads were collected from a

single site, any relationships between the type of ads and the type of Websites they appeared on

could not be seen.

A study conducted by three Yahoo associates explored content matching relationships

between the types of Websites and the type of ads that appear on them. Advertisements can be

matched to certain Websites with the same or similar content, like an ad for sneakers displayed

on a sports Web page. This is called "contextual advertising" (Ciaramita, Murdock, &

Plachouras, 2008). Semantic associations can be made with search query terms and ads can be

placed for relevant Websites in the search results. This aspect of Web advertising is called

"keyword matching" or "sponsored search" (Ciaramita et al., 2008).

From a marketing perspective, determining which brand or product banner

advertisements to place on your site is an important decision. A level of balance is expected

between the brand of the Website and the banner ad on the Website. If there is an imbalance the consumer's perception can be negatively affected. Newman, Sprott, and Stem (2004) investigated the impact of banner advertisement and Website congruity on consumer's attitudes towards a Website. In this study, 282 college students were exposed to an airline Website with one of three experimental treatments. The high congruity condition exposed subjects to a banner ad that was most related to the Website (in this case the ad was for Samonsite luggage). The low congruity condition exposed subjects to an unrelated banner ad, and the control group was not exposed to any banner ads. These conditions were developed through a pretest to select the most appropriate high congruity and low congruity ads to be used in the experiment.

After the participants were exposed to their treatment condition, they were given a questionnaire that was then used to measure the effect of banner advertisement and Website congruity on consumer attitudes. The overall attitude towards the Website was least positive for the low congruity condition, moderate for the no banner condition, and most positive for the high congruity condition (Newman et al., 2004). Since positive congruity effects can be seen based on context of banner advertisements, similar results may be visible for types of banner advertisements (i.e., animated) and Website congruity.

MySpace was created in 2003, a year before the previous study was published, while Facebook was created in 2004, and YouTube was created in 2005. Both social media and social networking sites have become increasingly popular. Coincidentally, some results from previous online advertising campaign studies may be less relevant due to emerging businesses like these.

Copious research has been conducted on banner advertisement characteristics and perceived effectiveness, generally within the context of commercial Websites only. Therefore, developing additional research considering more recently developed types of Websites will add

to the information resources available for future ad campaigns. In addition, audience studies

about the effectiveness of banner advertisement characteristics, such as visual and textual

appeals, provide useful information for categorizing variables in content studies.

Method

In order to achieve a thorough investigation of banner advertisements, content analysis, a

research tool for quantifying and analyzing content, is an appropriate method to evaluate

categories within forms of advertising. Ads analyzed in this analysis have been selected from

two social media Websites, two social networking Websites, and an e-commerce site.

For this study, the sample Websites have been chosen through Alexa, a Web information

company. Alexa has a "Top 100 sites in the United States" list that is updated daily, and these

ratings are compiled using a "traffic rank" system (see Appendix D). For the purposes of this

study, the sample consists of the most popular sites in each category. Facebook and YouTube

occupy the second and fourth positions respectively, so Facebook was used as one of the two

social networking sites and YouTube, as one of the social media sites. The second social

networking site used for this study was Linkedin.com, since it is the next highest ranked social

networking site at 15. For the second social media site, Flickr.com was used, which ranks 16th on

this Alexa Top 100 list; Flickr is actually the next social media site on the list, after YouTube.

Flickr has a very similar format and description to YouTube, but focuses on images rather than

video. Although Flickr is not ranked as highly as YouTube, it makes for a relative comparison

due to the similar nature of media sharing. Lastly, an e-commerce site was included to provide an

additional set of data, outside of social sites. The inclusion of an e-commerce site provides

comparative measures, since e-commerce sites offer a different experience than both social

media and social networking sites. For the e-commerce site, Amazon.com was chosen, which

occupied the fifth position on the top 100 list, because it provides a wide selection of products

and was ranked one of the top 25 best overall e-commerce sites by Time Digital Archive (see

Appendix E).

The banner advertisements were selected from the five homepages or personal profile

account homepages (if applicable, once signed in), as well as five sets of two (10) keyword-

search landing pages for each Website. A keyword-search landing page represents the first

search results page that appears for a given search (e.g., "Cell Phone Service"). Overall, there

were 15 Web pages analyzed per each site. The number of banner advertisements ultimately

varied depending on whether or not they appeared on the landing page being measured. This

style of convenience sample was necessary due to a number of factors, including not having a

concrete sampling frame (i.e., a comprehensive listing) of banner ads available, to draw a

standard random sample of ads from. Also, given the somewhat irregular nature of banner ads, it

is unrealistic, if not impossible, to guarantee dependable data availability to compile a standard

random sample. Consequently, the objectives will be more modest in employing a more limited

sampling approach.

Each banner ad was coded for banner style (animated or non-animated), image type (text

only, one picture, or multiple pictures), use of color (monochrome or color), use of animated

visuals or texts, and secondary appeal. An example of secondary appeal is when a consumer

scrolls over certain banner advertisements, and it produces another image or advertisement. This

variable was coded as "interactive means," since it would require interactivity to be activated and

seen. In order to operationalize these visual appeal variables, each ad was assigned a visual

appeal score (see Appendix B). It received one point if only text was present, and three points if

in addition to the text, a photographic image was present (two for the image, and one for the

text). Furthermore, points were added to a banner ad's visual appeal score for the presence of each of the following elements: two or more photographic images, color, animated visuals, animated texts, or secondary appeal.

The initial visual appeal score could range from a low of one (i.e., a banner ad comprised of only text in monochrome without any animated visuals or text) to 28 (i.e., a banner ad with a two or more photographic images, in color, with both animated visuals and text, and secondary appeal). Regarding textual appeals, the amount of text was also coded. Text was coded separately from visual appeal. In order to operationalize this textual appeal variable the exact number of words was counted in order to create categories (i.e., 1-5 words [minimal], and more than 20 words [lengthy]), to better evaluate message length, and textual complexity (see Appendix B). Previous research suggested that the presence of lengthy messages reduces response rate (Baltas, 2003). Therefore, categorizing message length (i.e., 20 or more words would be labeled lengthy) simplified the analysis of this variable.

Among the many characteristics of banner ads, the factor that affects awareness most seems to be the size of the ad itself. Evidently, people may notice larger ads more often than smaller ads (Cho, 2003). Banner ad sizes are commonly measured in pixels, and according to an Internet Advertising Bureau (2008), the IAB distinguished a number of standard sizes for banners ads (see Appendix F). However, if banner ad size is coded as part of the visual appeal content category, it may weigh more heavily than the other variables, like color or use of images. A large ad with minimal visual appeal may still be seen as more effective or attractive than a very small ad with several appeals, due to its surface area. Also, larger ads would have more room for textual and visual appeals, so the visual appeal scores may be skewed.

Regarding coding procedures, five coders were employed to code one site each, across five days. Each coder collected data from 15 Web pages in total. Each coder focused on a different Website. Two coders collected data from the social media sites, two focused on the social networking sites, and the fifth collected data from the e-commerce site. Inter-coder reliability was tested by checking the reliability between the coders in each group, for example, YouTube, one of the two social media sites had one coder, and Flickr.com had a different one, and so on. Inter-coder reliability resulted in 100% agreement across each group. The banner ad elements are relatively simple (text only, animation, etc.), so a high level of agreement was expected.

Intra-coder reliability was accounted for in this study. The following steps were taken to test if the coder would categorize the same content on a later occasion similar to how he or she coded it on an earlier occasion. Each coder first collected data from six Web pages that they would not be working on in the actual study (e.g., the coder who will be focusing on Flickr.com collected data from Digg.com, a similar social media site). Following the study, each coder then coded the same sample of content they did during the study. The intra-coder reliability resulted in 100% agreement as well.

Results

Data Analysis

Data were collected from each coder, and analyzed. Mac ChiSquare Analysis for Mac OS X was used for data analysis. Chi-square tests were conducted and statistically significant differences were found.

This study examined banner advertisements on social media and social networking sites. Differences were found between visual appeals of banner advertisements (e.g., animated or still)

on social networking and social media sites. Social Networking results: (chi-square=6.038, $df = 1$, $p < .05$). Social Media results: (chi-square $= 4.009$, $df = 1$, $p < .05$).

Visual Appeal

As hypothesized, visual appeals of banner advertisements on social media Websites and social networking Websites differed significantly. Ads on the social media sites received a higher visual appeal score than those on the social networking sites. Banner ads on YouTube and Flickr had scores of 306 and 242, respectively. As seen in Table 1, the social networking sites (Facebook and Linkedin) had much lower visual appeal scores. The ads on both YouTube and Flicker involved heavy animation and color use, which gave them higher scores in this category. Visual appeal for banner advertisements on the e-commerce site Amazon.com, scored in-between the social media and social networking sites (see Table 1). Amazon had a unique mix of ad styles, some had heavy animation and multiple images while others were static with a single image. In conclusion, banner advertisements did show a difference in animation between social media and social networking Websites. Social Networking results: (chi-square $= 6.038$, $df = 1$, $p < .05$). Social Media results: (chi-square $= 4.009$, $df = 1$, $p < .05$). Thus, the first hypothesis was supported.

Textual Appeal

Results of the textual appeal comparison did not support the hypothesis. Scores in this category were determined based on the amount of text in each banner ad. The social networking sites did not have higher textual appeal scores than the social media sites. While Facebook did in fact receive the highest textual appeal score with 303, there was no direct correlation between the type of site and the amount of text used in the banner advertisements. As seen in Table 1, the textual appeal scores were similar across all sites in the study. Amazon did receive the lowest

textual appeal score with 227, but it was not far behind Linkedin, which had a score of 232.

Although, results showed that textual appeals were high for social networking sites, they were

also high for social media sites so the difference was not significant. It was hypothesized that

textual appeals of banner advertisements on social media Websites and social networking

Websites would differ significantly. Social Networking results: (chi-square = 5.001, df = -1, $p <$

.05). Social Media results: (chi-square = .037, df = -1, $p >$ .05). Therefore, this hypothesis was

not supported.

Table 1. Content analysis results

	Visual Appeal	Textual Appeal
Facebook	45	303
Linkedin	89	232
Youtube	306	245
Flickr	242	252
Amazon	177	227

Discussion

The content analysis of these banner advertisements demonstrated that there were

differences in visual appeal depending on the type of website. More research should explore how

the style differences of these banner advertisements effects consumer attitudes on the brands

and/or products. Effects research is needed to determine how much of a role visual and textual

appeals play in the recognition and perception of a brand or product. The results of this study did

not provide enough information to conclude that textual appeal differs significantly between

social media and social networking sites. Due to a number of limitations in this study, further

research could be conducted with banner ads on these types of sites. Currently, Facebook only

serves one style of banner ads, a rectangle sized ad with a single picture and accompanying text.

In relation to coding, each ad on Facebook was worth three visual appeal points (out of a

possible 28). Therefore the data for this site do not show a variation of ad types (see Table 2).

Additional research could be conducted using other social networking sites such as MySpace.

Table 2. Content analysis results - Facebook

Site	Site Type	Date	Banner Size	Visual Appeal	Textual Appeal
Facebook	Social Networking	14-Apr	rectangle	3	22
Facebook	Social Networking	14-Apr	rectangle	3	20
Facebook	Social Networking	14-Apr	rectangle	3	21
Facebook	Social Networking	16-Apr	rectangle	3	11
Facebook	Social Networking	16-Apr	rectangle	3	16
Facebook	Social Networking	16-Apr	rectangle	3	21
Facebook	Social Networking	18-Apr	rectangle	3	18
Facebook	Social Networking	18-Apr	rectangle	3	25
Facebook	Social Networking	18-Apr	rectangle	3	23
Facebook	Social Networking	21-Apr	rectangle	3	24
Facebook	Social Networking	21-Apr	rectangle	3	17
Facebook	Social Networking	21-Apr	rectangle	3	24
Facebook	Social Networking	25-Apr	rectangle	3	24
Facebook	Social Networking	25-Apr	rectangle	3	26
Facebook	Social Networking	25-Apr	rectangle	3	11
			Totals	45	303

Another limitation can be found within the textual appeal score. Since ads with animation

can have multiple images and text fields, this allows for more text per ad. For example, an ad on

YouTube for Sony laptops seen on April 14th and April 16th had a visual appeal score of 28 and a

textual appeal score of 38 (see Table 3). The lengthy text score was a result of several images,

which provided multiple opportunities for text use.

Table 3. Content analysis results – YouTube

Site	Site Type	Date	Banner Size	Visual Appeal	Textual Appeal
Youtube	Social Media	14-Apr	leader board	28	38
Youtube	Social Media	14-Apr	leader board	17	8
Youtube	Social Media	14-Apr	leader board	10	6
Youtube	Social Media	16-Apr	leader board	28	38
Youtube	Social Media	16-Apr	rectangle	7	8
Youtube	Social Media	16-Apr	rectangle	16	20
Youtube	Social Media	18-Apr	leader board	28	16
Youtube	Social Media	18-Apr	rectangle	13	18
Youtube	Social Media	18-Apr	leader board	10	6
Youtube	Social Media	21-Apr	leader board	28	16
Youtube	Social Media	21-Apr	rectangle	21	26
Youtube	Social Media	21-Apr	rectangle	21	12
Youtube	Social Media	25-Apr	leader board	28	15
Youtube	Social Media	25-Apr	rectangle	28	6
Youtube	Social Media	25-Apr	rectangle	23	12
			Totals	306	245

So in retrospect, each frame may not have had a high amount of text but since the total amount of text used in the ad is what was coded for, this ad received a rather high textual appeal score. The question of whether or not textual appeals differ between social media, social networking, and e-commerce sites could not effectively be answered by this study since the amount of text can also be coded per frame. As seen in Table 3, multiple textual appeal scores may have been skewed due to these occurrences.

The content analysis also revealed relationships beyond those mentioned in the research questions. Observations about the type of brands were made. Linkedin, a site focused on building business relationships and online personas to help people look for jobs, showed to have a majority of business oriented ads. A few examples of companies with ads only seen on Linkedin were ToneFuse, an advertising network company for music related ad placement, TriNet, a company that provides HR outsourcing services, and also TheLadders, an online job search service. Brand related observations were also made within coding results from Facebook. Ad

serving on Facebook is based on profile attributes including locations and interests. For example, if Facebook sees that you attended a college in Pittsburgh you will be targeted with Pittsburgh specific ads. For instance, one coder who went to college at Quinnipiac in Connecticut received several Connecticut-related ads including one for a Connecticut Renaissance Faire. This coder also had interests surrounding video games; therefore they were served ads on Facebook from businesses such as Wayland Games and Games-designschools.org.

Ad positioning and size are aspects that may play a role in click-through rates and ad success. In the content analysis, ads were often seen in one of four positions and relative size. Ads were seen in either a leader board form at the very top of the page, a vertical banner on the left-hand side, or rectangle banners on the right-hand side or bottom of the page. Aside from Facebook, which only displays their ads along the left-hand side in rectangle banner ad form, the sizes and positioning varied often on all other sites. For example, Linkedin banners ads were typically seen on the right-hand side or the very bottom of the page. It can be assumed that the rectangle ads on the side of the page would be clicked on more often than those at the bottom. However, effects research should be conducted to identify any relationships related to click-through rates and ad positioning.

Although the codebook did call for visual aspects to be quantified such as amount of images and color use, some ad styles and additional visual aspects were not part of the research question. Banners ads can be styled in a multitude of ways, including bordered text vs. floating text. Facebook and Linkedin showed ads with no borders as seen in Figure 1 and Figure 2.

Figure 1. Floating Text - Facebook
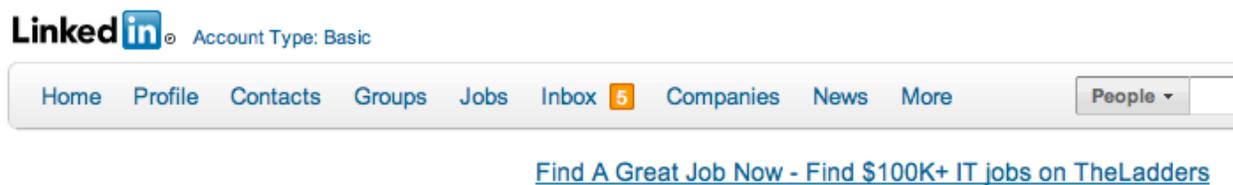
**Figure 2.** Floating Text – Linkedin

Most ads were seen with borders, such as the Williams-Sonoma ad on Flickr.com in

Figure 3. The way ads are styled can be related to site structure and page layout. Effects research

can be conducted to test the click-through rate for bordered ads vs. non- bordered ads.

Figure 3. Bordered Text – Flickr

Ads were coded for animation use, whether or not the ad utilized animation of some sort but any specific animation styles were not part of the research questions. Animation can be used to help draw the visitor's attention over to the ad, so knowing which tactics work best could assist advertisers when creating ads.
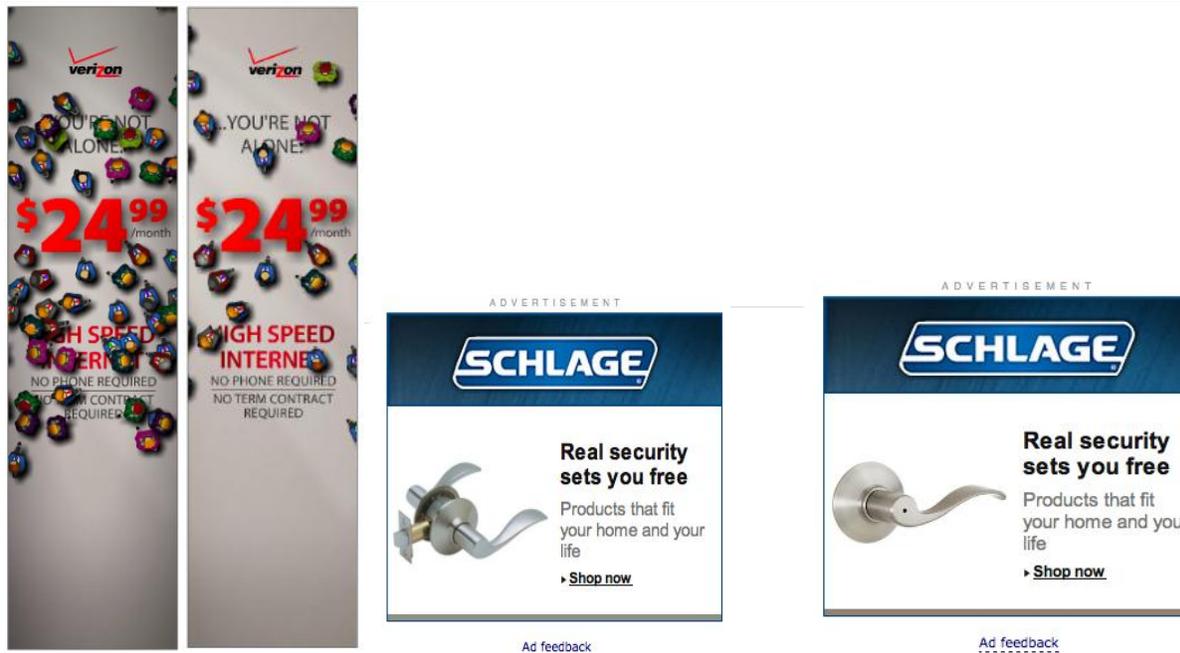
Figure 4. Animation Styles – Amazon

Amazon.com served a number of animated ads but some were simple image rotating ads while others had much more animation. Figure 4 shows two examples where animation use varied. The effect of animation styles on click-through rates could also be a topic of research.

The content analysis of this study revealed many aspects of banner advertisements that can be examined further. This study proposed two hypotheses, of which one was fully supported by the data analysis. Results indicated that visual appeals in banner ads on social media and social networking sites differ significantly. The experimental findings also revealed additional banner ad and website relationships including type of brand, text styles, and animation styles.

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> optimedia-sees-only-69-worldwide-ad-growth-8714/zenith-optimedia-advertising-

> spending-ad-spend-medium-us-dollars-april-2009jpg/)

Appendix A: Sources Searched

Visited Academic Search Elite Database, Searched keywords: "banner ads" & "study",

Time frame 1999-2003 (did not limit search) and found:

Cho, C. (2003, September). The Effectiveness of Banner Advertisements: Involvement and

Click-through.

   Journalism & Mass Communication Quarterly, *80*(3), 623-645. Retrieved January 21,

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Visited Business Source Elite Database, Searched keywords: "banner advertisements" & "study"

Time frame 2003 (did not limit search) and found:

Baltas, G. (2003, 2003 Quarter 4). Determinants of Internet advertising effectiveness: an

empirical study.

   International Journal of Market Research, 45(4), 505-513. Retrieved February 12, 2009,

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Chandon, J., Chtourou, M., & Fortin, D. (2003, June). Effects of Configuration and Exposure

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   Responses to Web Advertisements. *Journal of Advertising Research, 43*(2), 217-229.

Visited Communication & Mass Media Complete, Searched keywords: "social media" & "social

networking", Time frame 2007 (did not limit search) and found:

Fernando, A. (2007, January). Social media change the rules. *Communication World*, *24*(1), 9-

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   Retrieved February 12, 2009, from Communication & Mass Media Complete database.

Visited Journal of Interactive Advertising, Searched keywords: "Internet user motives",

Time frame 2000-2002 (did not limit search) and found:

Rodgers, Shelly (2002). The Interactive Advertising Model Tested:. *Journal of interactive*

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Appendix B: Codebook

Visual and textual appeal in banner advertisements

Unit of Analysis: The entire banner advertisement is the entity that this study analyzes. Banner advertisements contain either or both visual and textual appeals. These appeals include photographic images, color use or lack thereof, visual animations, textual animation, and interactive means.

Visual appeal score: For each ad, a baseline visual appeal score will be given. The possible range is from one to seven. Those banner advertisements that contain text only, would receive a score of 1, and those with color, two or more photographic images, animated visuals and texts, and interactive means will receive a score of 28.

Types of visual appeals: (1) text only (2) the use of a photographic image (could be a drawing, a photo, an object, etc.). (3) two or more images (4) Use of multiple colors, beyond font color (5) Animated visual (any moving object, or picture, etc.). (6) Animated text (moving textual characters, letters or numbers, etc.). (7)secondary appeal through interactive means (scrolling on the ad causing it reveal any kind of secondary, additional advertisement).

    Code: 1 = text only

             2 = photographic image

             3 = two or more photographic images

             4 = color use

             5 = animated visual

             6 = animated text

7 = interactive means

Textual appeal: To operationalize textual appeal and complexity, we will note the amount of text in the advertisement.

Size of banner advertisement: In the Internet Advertising Bureau report (1998), the IAB categorized banner sizes; these sizes were measured in pixels (Standards in Table 1-1).

Code: 1 = micro bar

2 = button 2

3 = square button

4 = rectangle

5 = vertical banner

6 = leader board

Type of Websites: For the purposes of this study, we examined two social media and two social networking Websites.

Code: 1 = www.youtube.com

2 = www.flickr.com

3 = www.facebook.com

4 = www.linkedin.com

5 = www.amazon.com

Appendix C: Coding Sheet

A. Coder Number   _____

B. Coding Date & Time   _____

C. Category of Web page

    __ Social media   __ Social networking   __ E-commerce

D. Title of Website

    __ YouTube   __ Flickr   __ Amazon

    __ Facebook   __ Linkedin

E. Web Address (URL)   _____

F. Advertisement's Business _____

G. Banner Size

    __ Leaderboard (728X90 Pixels)   __ Rectangle (180X150 Pixels)

    __ Square Button (125X125 Pixels)   __ Button two (120X60 Pixels)

    __ Vertical Banner (120X240 Pixels) __ Micro Bar (88X31 Pixels)

H. Visual Appeal (check all that apply)

    1. Text only   _____   2. Photographic image   _____

    3. Photographic images _____   4. Color use   _____

    5. Animated visual   _____   6. Animated text   _____

    7. Interactive means   _____

I. Textual Appeal/Complexity

    _____ Amount of Words (approx.)

J. Landing Page

    _____ Homepage

    _____ Keyword Search - (_____)

Appendix D: Alexa Traffic Rank

About the Alexa Traffic Rankings

A listing of all sites on the Web, sorted by traffic...

Alexa computes traffic rankings by analyzing the Web usage of millions of Alexa Toolbar users and data obtained from other, diverse traffic data sources. The information is sorted, sifted, anonymized, counted, and computed, until, finally, we get the traffic rankings shown in the Alexa service. The process is relatively complex, but if you have a need to know, please read on.

What is Traffic Rank?

The traffic rank is based on three months of aggregated historical traffic data from millions of Alexa Toolbar users and data obtained from other, diverse traffic data sources, and is a combined measure of page views and users (reach). As a first step, Alexa computes the reach and number of page views for all sites on the Web on a daily basis. The main Alexa traffic rank is based on a value derived from these two quantities averaged over time (so that the rank of a site reflects both the number of users who visit that site as well as the number of pages on the site viewed by those users). The three-month change is determined by comparing the site's current rank with its rank from three months ago. For example, on July 1, the three-month change would show the difference between the rank based on traffic during the first quarter of the year and the rank based on traffic during the second quarter.

For more information: http://www.alexa.com/site/help/traffic_learn_more

For top 100 sites in the United States according to Alexa.com:

http://www.alexa.com/topsites/countries;0/US

Appendix E - Time Digital Archive

ON Magazine Home
Reviews
Head-To-Head
Best Gear
Best Sites
How To Buy
Deal of the Day
Editor Chat
ON Radio
ON Magazine
Bulletin Boards

TIME.com Home
CNN.com Tech News

About ON

OTHERNEWS

**Check the New
2000
FORTUNE 500
Today!
FORTUNE.com**

THE 25 BEST E-COMMERCE SITES

CATEGORIES
Introduction

Apparel

Auctions

Automotive

**Books, Music &
Videos**

**Computers &
Software**

**Consumer
Electronics**

**Department &
Discount Stores**

The 25 Best E-Commerce Sites

BEST OVERALL:

Amazon.com
No surprise. A third of the people who buy
online shop at Amazon.com. That percentage
would be respectable if you were talking about
the customers for an anchor department store
at som e local mall in Paramus, N.J., but
Amazon is the anchor store for all online
shopping.

For the full article: http://www.time.com/time/digital/reports/ecommerce/25best.html

Appendix F: Banner Ad Standards

Banners and Buttons

		Recommended Maximum Initial Download Fileweight	Recommended Animation Length (Seconds)
300 x 250 IMU - (Medium Rectangle)	View IMU	40k	:15
180 x 150 IMU - (Rectangle)	View IMU	40k	:15
728 x 90 IMU - (Leaderboard)	View IMU	40k	:15
160 x 600 IMU - (Wide Skyscraper)	View IMU	40k	:15
300 x 600 IMU - (Half Page Ad)	View IMU	40k	:15
120 x 60 IMU - (Button 2)	View IMU	20k	:15
88 x 31 IMU - (Micro Bar)	View IMU	10k	:15
120 x 240 IMU - (Vertical Banner)	View IMU	30k	:15
125 x 125 IMU - (Square Button)	View IMU	30k	:15
120 x 600 IMU - (Skyscraper)	View IMU	40k	:15

For more information: http://www.iab.net/iab_products_and_industry_services/1421/1443/1452