Social Media: Do Context Limitations Exist?

By

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An Honors Thesis in partial fulfillment of the requirements for the degree Bachelor of Science in Business Administration in International Business – Finance.

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Fayetteville, Arkansas

May 11, 2012
Abstract

Since the inception of popular social networking sites, such as MySpace, Facebook and Twitter, millions of people around the world are becoming members of their own virtual communities that continue to grow. Communication barriers flattened with the invention of the internet, and now social networking sites are creating an organized infrastructure within the vast cyberspace. Within my research, I plan to further pursue a research gap concerning the importance of the social context in which ads are displayed. Since it is well documented that social media users are sensitive about the amount of advertising and the kind of information marketers are utilizing, it is possible marketers could improve social media users’ perception by not only loading their messages with entertainment and informational value as Taylor, Lewin and Strutton (2011) suggest, but also by avoiding the placement of ads in sensitive contexts, unless the message can satisfy the immediate need of the user in that context by utilizing a congruent advertisement.

The significance of the findings by this study can guide marketers as to which contexts to encourage and avoid displaying advertisements. Since social networking sites function as virtual communities, it is as if marketers are currently represented as the new member of the community that has found a way to learn as much or more about the user than his or her closest friends in a fraction of the amount of time. Such mining of information can lead to privacy issues and distrust. Therefore, marketers are not establishing a rapport with users, leaving them to feel vulnerable to marketers’ methods of data collection. By understanding the proper contexts to place advertisements within social media, marketers and social networking sites could not only establish a better relationship with the consumers that are engaged in social media, but also generate an even greater revenue stream.

Literature Review

According to Nielsen’s most recent Social Media Report, “nearly 4 in 5 active internet users visit social networks and blogs” (“Nielsen: Social Media” 2011). In addition, a study published on comScore Data Mine showed the typical visitor in the U.S. spends an average of 5.2 hours per month on social networking sites, and in the leading country, Israel, visitors spend 10.7 hours per week engaged on social networks (“Average Time Spent” 2011). To illustrate how quickly social networking sites have grown to consume the lives of its users, after the third quarter of 2011, Citi analyst Mark Mahaney discovered that U.S. residents with access to an internet connection spend approximately 16% of their surfing lives on Facebook, which was double the just under 8% value during the first quarter of 2010 (Dumenco 2011).

Since social media is reaching nearly 80% of internet users, there are incredible opportunities for marketers to reach a wide demographic of consumers. For example, Facebook has more than 400 million users that create in-depth user profiles that provide valuable consumer insight and preferences through the “like,” “add a friend,” group and “tag” functions (MacMillan 2010). Marketers are eager to access such valuable information, which means social networking sites have the potential to generate a significant amount of advertising revenue. Advertisements on social networks are projected to generate in excess of $5 billion in 2011, which is nearly double the $2.38 billion in 2009 and expected to reach nearly $10 billion in 2013 (Rao 2011).

Marketers are learning the art of advertising within the social networking channel, however, is quite different than traditional forms, such as radio, newspapers, magazines and etc.
Gordon and Lima-Turner (2007) claim the relationship between consumers and advertisers has traditionally been an implicit “contract” in which consumers received content for free or at a reduced cost by accepting that those channels utilize advertising to generate revenue. However, Matthew and Gaffney suggest that internet users perceive advertising as “intrusive and annoying diversions” to their everyday surfing lives (qtd. in Lewin, Strutton and Taylor 2011). Therefore, the implicit social contract between advertisers and social media users has yet to fully develop.

Though the implicit relationship between marketers and consumers is still developing in the realm of social media, a separate study by Nielsen shows the majority (53%) of social networking users follow brands (“How Social Media” 2011). More importantly, more than 60% of consumers that research products rely on consumer ratings and reviews (“How Social Media” 2011). Therefore, marketers have been trying to find ways to position their products and brands through a simulated technological word-of-mouth medium, as marketers know that establishing their brands and trust among consumers begin with everyday conversations among consumers. Facebook has made major strides at establishing a technological word-of-mouth medium by developing a technology that allows the mining of conversations on a real-time basis and translating those conversations into revenue opportunities (Slutsky 2011). For example, if a consumer documents the desire for a hamburger in his or her status, as soon as the user clicks to share that craving with others, ads featuring coupons will likely appear for discounts or specials for hamburgers at local restaurants or fast food chains. Slutsky (2011) further explains that as soon as the consumer expresses that craving, there exists a “sweet spot” in which marketers are hoping to capitalize and generate a sale, “[t]he moment between a potential customer expressing a desire and deciding on how to fulfill that desire is an advertiser sweet spot, and the real-time ad model puts advertisers in front of a user at that very delicate, decisive moment.” On the other hand, Slutsky (2011) expounds upon a major issue for marketers concerning the ads that consumers never see, which leads to the “intrusive and annoying diversions” that Matthew and Gaffney discussed. Slutsky (2011) concurred with this notion, explaining “those that do notice ads complain they are not relevant to their interests.” Thus, proper and timely consumer targeting by marketers is crucial. The effects of poor products or advertising can be profound. Research shows consumers instill a high degree of trust in other consumer reviews and 58% of users voice their opinions and experiences through consumer reviews, and nearly “1 in 4 say they share negative experiences to ‘punish companies” (“How Social Media” 2011) Thus, it is critical that marketers promote their best products, but at the same time, do not over-commercialize social networking sites, as they risk losing brand loyalty through outspoken users.

Before further explicating the impacts of social media and the importance of its users, understanding the fundamental psychological reasons surrounding the use of social media and social networking sites is necessary for marketers to reach its audiences effectively. Since users of social media have the capabilities to create free advertising for firms via status updates, while also providing clearer targets for marketers with technology like Facebook’s mining algorithms, the role of social media users is becoming ever more important. Since consumers pay close attention to reviews by other consumers, social media users are equipped with a powerful tool of content generation that can manipulate the market’s perception of a product. Therefore, marketers must respect the power, motivations and attitudes of social media users to strike a balance between the nice, persistent neighbor and the invasive, stalking member of the community. Marketers need to provide a convenience to social media consumers that supports the firm’s brand identity and establishes trust in the virtual community. Daniel Katz suggests
that there exist four primary motivational reasons as to why users are so engrossed in user-generated content: utilitarian, knowledge, ego-defensive and value-expressive motivations (Daugherty, Matthew and Bright 2008). Katz proposed this theory in 1960, but he illustrates a wide spectrum of personalities that utilize and create user-generated content. The utilitarian motive suggests that one generates and consumes the user-generated content out of self-interest (Daugherty, Matthew and Bright 2008). To provide a modern connotation, this motivation describes those that have adopted social networking sites as hobbies. Facebook and other popular social networking sites have expanded beyond just networking and chatting with friends. Users can be easily engrossed in games, forming groups for causes, creating collages of friends and many other functions. Thus, while marketers should try to reach users when performing their favorite activities, they have to be careful to not become “intrusive” or “annoying diversions” as suggested by Matthew and Gaffney. As Simon Dumenco (2011, p.12) informally explains regarding Facebook, “because Facebook, for all its talk about cozying up to brands and marketers, is still a hangout—a destination for friends who want to commune and waste mind-boggling amounts of time together.” The next motivation, knowledge, describes the users’ desire to seek information or simply a better understanding of their environment (Daugherty, Matthew and Bright 2008). Social networking sites offer a wealth of knowledge that sparks the interest of many users. When companies are in the process of hiring individuals, they can perform their own forms of screening by analyzing a candidate’s profile page and developing an understanding of the kinds of friends, family and overall environment that influence that candidate. LinkedIn is another example of a social networking site for business professionals that allows them to establish connections, post resumes and discover job opportunities. The knowledge user is characterized as the individual that makes a great effort to keep up-to-date with community events, friends’ birthdays, news articles and etc. that can be found through various mediums on social networking sites. Understanding the environment drives the knowledge user. Therefore, marketers have ample opportunities to place their products in contexts that help such users find solutions to their everyday cravings of knowledge.

The last two motivations, ego-defensive and value-expressive, explain deeper psychological reasons as to why users consume and create user-generated content (Daugherty, Matthew and Bright 2008). The ego-defensive function is a way for users to cope with identity crises, self-esteem issues or simply self-doubts, as it pushes users to establish virtual boundaries and develop a sense of belonging (Daugherty, Matthew and Bright 2008). The value-expressive motive explains the users’ desire to build communities with individuals of similar backgrounds, interests, values, morals and etc. Therefore, users turn to social networking sites, because they are effective at connecting individuals with similar interests and values. On Facebook, it is common to see notifications of friend that “like” a particular movie, book, food or etc., because social networking sites understand the advantage of the utilizing the connections people make through the value-expressive motivation. Thus, companies can receive valuable exposure, not only because Facebook and other social networking sites connect individuals with so many commonalities, but also, social networking sites are communicating the popular products, brands and retailers among members of these virtual communities. This brand, company and product liaison serves as another technological form of the word-of-mouth medium. Since research shows that consumers value the opinions of other consumers, a social media user is likely to be more inclined to explore a product when several members within his or her community “like” the product.
While understanding the user is important for establishing long-lived relationships between companies and its consumers, there are some common strategies that must be used sparingly to limit short-lived relationships between marketers and its consumers. Despite the fact that marketers now have the capabilities to simulate a word-of-mouth medium in these popular virtual villages, over-commercializing can lead to a phenomenon known as brand fatigue. Brand fatigue occurs when consumers become overloaded by information from marketers. Michael Sessions, CEO of the prominent social-software and services firm Syncapse explains marketers are the underlying problem of the boredom and agitation experienced by social media users (Kerwin 2011). One short-lived technique marketers use to garner the attention of users is bribing them with free products. While most consumers love almost anything free, marketers do not develop a continuing relationship or build brand loyalty with such tactics. Instead, users will keep asking, “what will you give me next?” instead of exploring the other products a brand offers. Sarah Hofstetter, the Sr. VP of emerging media and brand strategy for 360i, explains too many marketers “went for the lowest common denominator, which was free stuff, […] And so consumers began expecting the freebies. It became a self-fulfilling prophecy” (Kerwin 2011). Unlike the trust and confidence that can be developed by linking similar users that like the same products and retailers, bribing consumers with free items and one-time deals can be very costly because without receiving continued business, a company could find itself giving much more than it is receiving.

The next issue to address is improving the overall attitude of social media users toward the current efforts by marketers that are penetrating their communities. A study published on Dynamic Logic AdReaction surveyed 2,000 social media users in 2009 and found that only 22% of users would embrace more advertising in exchange for free access to social networks, and 48% would at least tolerate the increase (“Brands + Consumers” 2010). Meanwhile, 24% responded they would not accept an increase in advertising, and approximately 5% claimed they would stop using social networks (“Brands + Consumers” 2010). Despite advertising revenues nearly doubling, are marketers maximizing their revenues, and how could they potentially continue to improve the attitude of social media users?

An important study by Lewin, Strutton and Taylor (2011) titled Friends, Fans and Followers: Do Ads Work on Social Networks? How Gender and Age Shape Receptivity, proposes findings that are important to my research. While they were trying to support gender-based differences, the researchers also conducted significance testing on several factors that affect the attitudes of social networking users and found interesting results. The two most important factors that lead to a positive reception and add social value are entertainment and informational value (Lewin, Strutton and Taylor 2011). The four remaining significant variables were “peer influence”; “self–brand congruity”; “privacy concerns” and “invasiveness” (Lewin, Strutton and Taylor 2011, p. 270). Therefore, the researchers introduced a paradox in the methods by which marketers reach social media users. “The most common way for SNS (Social Networking Sites) advertisers to deliver relevant advertising is to target messages based either on demographic data collected as part of the user profile creation or through contextual keywords. However, user attitudes toward SNA (Social Networking Advertising) are negatively impacted by perceived intrusiveness of advertising or loss of privacy from ad-related data collection” (Lewin, Strutton and Taylor 2011, p. 270). In the virtual community context, marketers are the new members of the community that have access to information that allow them to know much more about the user than his or her closest friends in a fraction of the amount of time. When
social networking sites mine conversations and keywords, users oftentimes notice the advertisements on subsequent pages reflect previous searches and status updates. The advertisements generated from keywords and updates can “track” users and leave them feeling vulnerable because they feel like they are being watched. Referring back to the “sweet spot” that Slutsky (2011) mentioned, the new mining technologies have the tendency to exaggerate the size of the sweet spots by pouring an onslaught of advertisements into future pages that no longer even relate to the original status or search.

Because marketers are positioning advertisements in pages that are up to several clicks beyond the ideal “sweet spot,” issues of context and ad congruency could become major problems. In a study conducted by Calder, Malthouse and Schaedel (2009), the researchers suggest three guiding theories in terms of context and ad congruity that serve as the foundation of my experiment. The first is the mood congruency-accessibility hypothesis that states, ”[t]he ad context makes a certain mood or affect more accessible and relieves the processing of stimuli with similar mood or affects” (Calder, Malthouse and Schaedel, 2009, p. 324). Therefore marketers should maintain an awareness of the types of contexts in which their advertisements are placed, because SNS users might access emotions on certain pages that put them in a state in which they would respond negatively to advertising. The next theory, the congruity principle, describes the necessity of advertisements to possess content similar to that displayed on the page. The theory formally explains, “the medium and the advertised brand converge and become more similar in consumers’ minds” (Calder, Malthouse and Schaedel, 2009, p. 324). The final hypothesis refers to the interaction of ad congruity and the context explaining, “the context serves as a cognitive prime that ‘activates a semantic network of related material that guides attention and determines the interpretation of the ad” (Calder, Malthouse and Schaedel, 2009, p. 324). Based on these theories, I will explore how two contrasting contexts interact with one advertisement that possesses a higher degree of congruency in both scenarios and another advertisement that is less congruent. Given the above research and theories, the hypotheses for my research are as follows:

**H1:** Subjects will be more inclined to behave positively toward advertising in contexts that access more positive emotions.

**H2:** Subjects will be more inclined to respond in a positive manner toward advertisements that are congruent in a broader spectrum of contexts.

**H3:** Subjects will behave more favorably in contexts in which the advertisement exhibits a higher congruency.
Methods

The sampling method used was a convenience sample of 202 individuals that were selected using Amazon Mechanical Turk. Mechanical Turk is a service offered by Amazon that allows willing subjects to participate in experiments in exchange for money. The primary instrument utilized for testing was a computer-based survey software called Qualtrics. In order to test the user’s attitude and perception toward advertising within social media, four static mock profile pages were developed using Microsoft Powerpoint (Appendix A). Each mock profile page was created using one of two distinct contexts, positive and negative, with either a congruent or an incongruent advertisement. “Congruent” in this case was defined as to how well the ad’s message or product related to the context in which it is displayed. In the positive context, a female was announcing that she was having a baby. The negative context featured a high school coach that recently passed away after winning a big game for the school. The female and male used in each context were the same for both the congruent and less congruent advertisements. The overall layout of the static pages was controlled in order to limit survey bias that could be attributed to the organization of information on the page. In the controlled format, a picture was displayed in the upper left hand corner of the slide with static links to other parts of the profile page organized horizontally starting from the upper right hand corner of the profile picture, and a comments section positioned in the middle of the slide to simulate the feel of the Facebook wall, Twitter feed and guest book. The links that extended from the right of the photo were similar to the links found on Facebook, such as “Profile,” “Friends,” “Photos/Videos,” and etc.

An advertisement was placed along the right side of the mock profile page to simulate banner advertising common on many social media sites. The ad was placed about half way down the page and to the right of the wall status section. The congruent ad was designed to promote a product that would target both contexts. Therefore, an ad promoting flowers by Flowerworld.com, a fictitious company, was created to serve as a product typically needed by the user in each context. The incongruent ad was designed to simulate an experience in which the user is poorly targeted with an ad for a product that would be considered more unrelated or incongruent to the context of the information displayed. This experience can occur in social media by way of poor targeting in general or sometimes with advertisements that “follow” a user after a previous search or mention in a status feed. The incongruent ad was a condoms ad promoted by Condoms.com, another fictitious company. In summary, two different ads were created to be placed within two distinct contexts:

a. A birth announcement on a profile page with a flowers ad from Flowerworld.com (Appendix A) – approximately 50 subjects.

b. A birth announcement on a profile page with a condoms ad from Condoms.com – approximately 50 subjects.

c. A death announcement on the profile page of a high school coach with a flowers ad from Flowerworld.com – approximately 50 subjects.

d. A death announcement on the profile page of a high school coach with a condoms ad from Condoms.com (Appendix A) – approximately 50 subjects.
Table 1 below illustrates the overall scheme and interactions between the contexts and the types of advertisements that were analyzed in the experiment.

Table 1: Experimental Design Diagram

<table>
<thead>
<tr>
<th>Context</th>
<th>Advertisement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth</td>
<td>Condoms: Positive Context/Low Congruency</td>
</tr>
<tr>
<td>Death</td>
<td>Condoms: Negative Context/Low Congruency</td>
</tr>
</tbody>
</table>

The first page of the Qualtrics survey (appendix B) was the consent form, which was assembled using IRB guidelines, and instead of the actual project name, the title, “Surfing the Web: What are Your Habits Surfing the Internet?” was used to serve as a minor form of deception, so the user would not develop an expectation or bias toward the test. The next page of the test displayed the instructions for the user to follow (Appendix B). The user was told that he or she would be redirected to a new web page, and that would be asked to write a unique and appropriate response given the context presented. Further, they were asked to act as if they knew the person on the page.

After the subjects read the instructions, the following page displayed one of the four mock profile pages for the user to examine (Appendix A). The selection of the page was randomized by Qualtrics, but the restrictions were set to prohibit the selection of either page more than 50 times. At the bottom of the page, the Qualtrics survey was designed to display a mock comments text box to simulate the experience of the user posting a comment on a Facebook wall or tweeting a friend. The content of the comment was not meant for any form of analyses, but rather, to serve as a distracter and manipulation check that simulated a typical activity on social networking sites.

After the subjects submitted the comment, the next page displayed the start of the questions related to the experiment (Appendix B). The first questions were about the ad and were only given to the subjects if they saw the advertisement on the page. The next block of questions were designed to measure the subject’s attitude, opinion and perception toward the presence,
content and placement of the ad, along with later questions that focused on the general uses of advertisements in social media. In order to measure the users’ attitude/perception, a 7-point Likert scale was used and responses were generated using an appropriate set of Likert-scale responses stored within Qualtrics and based on previous surveys for topics similar in scope. One question was also a word association question that asked subjects to recall at least five words that first come to mind when thinking of advertising in social media. These responses were divided into positive, neutral and negative responses. The ratio of each division to the total number of responses was then multiplied by 100 to generate positive, neutral and negative indices. The last block of questions were designed to gather general information about the subjects’ background, such as their experience with social networking and general demographic questions to better understand the individuals utilized in the sample.

The last page of the survey displayed a message that thanked the subject for participating and revealed the true purpose for the experiment.

Results

The raw data possessed 202 observations. Of that, data of 129 subjects were available for analysis. Only 129 observations were used primarily because most of the 73 eliminated subjects did not recognize the coach had passed away in the death context, which was apparent by their congratulatory messages for the coach and the team. Of the 129 subjects, only 77 subjects answered that they had seen an advertisement on the mock social media pages. Therefore, three data sets were available: the respondents that saw the advertisement, the subjects that did not see the advertisement and the combined results of both the subjects that did and did not see the advertisement. Because this experiment focused on the interaction of ad congruency with respect to context differences, the primary data sets used in the analysis were of the subjects that saw the advertisement and the combined data with those that did not see the advertisement. For interaction purposes the data of those that saw the ad was analyzed, while the combined data was used primarily for analyzing the demographic characteristics of the subjects that participated in the experiment.

All results were based on the use of a multivariate ANOVA test (MANOVA). In essence, the means of the responses to several attitudinal questions were measured and analyzed to determine whether there existed 1) significant differences within the main effects of each context 2) differences between the main effects of each advertisement and 3) whether significant interactions existed when the ads were congruent or incongruent within each context. The means of each question were based upon the Likert scaled responses for each question, which ranged from one to seven, in which one signified the most negative of the responses, while seven represented the most positive of the responses, except for the question related to ad excessiveness, in which the higher responses were more negative. The value of four was a neutral response. The types of questions analyzed were divided into two categories: 1) questions that related to the ad and context used in the experiment and 2) attitudinal questions related to advertising in social media, in general.
Main Effect # 1: Death Context vs. Birth Announcement Context

With the majority of the variables analyzed, there were not significant differences between the means of the distinct contexts. The following table illustrates the means of those variable analyzed when focusing on differences between the birth and death contexts.

Table 2: Main Effects Means – Context Type

<table>
<thead>
<tr>
<th>Variable</th>
<th>Death</th>
<th>Birth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opinion of Ad Presence</td>
<td>***3.3182</td>
<td>***4.6909</td>
</tr>
<tr>
<td>Attitude Towards Ad In Experiment</td>
<td>***3.5455</td>
<td>***4.4727</td>
</tr>
<tr>
<td>Ad Appropriateness Considering Context</td>
<td>***3.4545</td>
<td>***4.5636</td>
</tr>
<tr>
<td>Positive Index</td>
<td>***7.2727</td>
<td>***32.7100</td>
</tr>
<tr>
<td>Neutral Index</td>
<td>46.0823</td>
<td>35.1061</td>
</tr>
<tr>
<td>Negative Index</td>
<td>46.645</td>
<td>32.184</td>
</tr>
<tr>
<td>General Attitude Toward Advertising in Social Media</td>
<td>3.8636</td>
<td>4.4000</td>
</tr>
<tr>
<td>Level of Awareness of Context Marketers Should Have</td>
<td>2.4545</td>
<td>2.8364</td>
</tr>
<tr>
<td>Importance of Ad Congruency to Context</td>
<td>5.1818</td>
<td>5.3636</td>
</tr>
<tr>
<td>More Likely to Click Ad Related to Context</td>
<td>5.5455</td>
<td>5.4545</td>
</tr>
<tr>
<td>More Likely to Click Ad Not Related to Context</td>
<td>2.8636</td>
<td>3.2727</td>
</tr>
<tr>
<td>Advertising is Excessive in Social Media</td>
<td>5.0455</td>
<td>4.9636</td>
</tr>
<tr>
<td>Effectiveness of Ad Placement in Social Media</td>
<td>3.7273</td>
<td>4.6000</td>
</tr>
<tr>
<td>Social Media Advertising is Helpful for Purchasing Decisions</td>
<td>3.2273</td>
<td>4.5273</td>
</tr>
<tr>
<td>Advertising in Social Media Adds Value</td>
<td>***3.4545</td>
<td>***4.1091</td>
</tr>
<tr>
<td>Opinion Related to Conversation Mining</td>
<td>3.7273</td>
<td>3.7273</td>
</tr>
<tr>
<td>Perception of Company Affected by Unrelated Placement</td>
<td>5.4091</td>
<td>4.9636</td>
</tr>
<tr>
<td>Do You Feel Like Ads Track You</td>
<td>1.4091</td>
<td>1.4727</td>
</tr>
</tbody>
</table>

*** - Mean differences significant at the p<0.05 level

Dependent Variable # 1: Which of the following best explains your opinion of the presence of the ad?

The first question that demonstrated a significant difference between the means for the death and birth announcement contexts was the question related to the subjects’ opinion of the presence of the ad in the context of the page they were presented. This distinction did not examine ad type, but rather simply the mere presence of an ad in the different contexts presented. This difference supported Hypothesis 1 that the death context would exhibit a lower mean score than the birth announcement. Participants with the death context (M=3.318, SD=1.393) were less favorable of the ad appearing in the context of the page they viewed in comparison to those that encountered the birth announcement (M=4.691, SD=1.609) at a significant level (p=0.002 < 0.05). In terms of the question, the mean for those with the death context fell between the responses, “Somewhat Inappropriate” and “Neutral.” Therefore, those that viewed the death context were more inclined to view the advertisement as slightly inappropriate. Further, the 95%
confidence interval (upper bound=4.044, lower bound = 2.733) suggested the true mean would be expected to fall between “Inappropriate” and “Neutral” for the death context. Meanwhile, the 95% interval (upper bound = 5.063, lower bound = 4.244) for the birth context illustrates that the true mean should fall between “Neither inappropriate nor appropriate” and “somewhat appropriate.” Therefore, those with the birth announcement context were more open to the presence of an advertisement than those that viewed the death context. Again, this confirms Hypothesis 1 that the subjects would be more open to advertising in contexts that accessed more positive emotions.

**Dependent Variable # 2: Which option best describes your attitude toward the ad?**

The next question that experienced significant differences in the means of the death context vs. the birth announcement was that concerning the attitude toward the ad in the experiment. The seven-point Likert scale ranged from “Very Displeased” to “Very Pleased.” Not considering the type of ad, the attitude of subjects toward the advertisements presented differed based upon the context, in which the means of their attitudes were less favorable toward the advertisements in the death context (M=3.546, SD = 1.299) than the birth announcement context (M=4.473, SD = 1.438) at a significance level well below the 0.05 threshold (p = 0.019 < 0.05). This confirmation also supports Hypothesis 1. The mean of the death context lies between “Somewhat Displeased” and “Neutral.” The 95% confidence interval for this variable for the death context (upper bound = 3.001, lower bound = 4.070) illustrated that the true mean should fall between these bounds with 95% confidence. In terms of the choices, the 95% interval suggest the mean will likely fall between “Somewhat Displeased” and “Neutral.”. On the other hand, the 95% interval (upper bound = 4.817, lower bound = 4.070) for the birth context exhibited higher bounds that that of the death context. Therefore, one should expect with 95% certainty that the true mean of a birth announcement context should be at least “Neutral” or “Somewhat Pleased” by an ad in the birth context. These findings supported Hypothesis 1.

**Dependent Variable # 3: Considering the context of the page you visited, please indicate the level of appropriateness exhibited by the ad?**

The goal of this question was to understand how the subjects reacted to the particular ad given the context they viewed in the social media page. The seven point Likert values ranged from a low of “Very Inappropriate” to “Very Appropriate.” While the main effects difference would not analyze the actual interaction between the ad type and context, the death context exhibited a lower mean (M=3.455, SD = 1.765) than the birth announcement context (M= 4.564, SD = 1.686) at a significant level well below 0.05 (p = 0.019 < 0.05). Therefore, when analyzing just the distinct contexts, those that had the death context viewed the ad in their page less favorably than the ads in the birth announcement context. The values of the means and significance levels were likely similar to the previous question, because the questions were similar in nature. However, the higher standard deviations suggest that the variability of attitude around the mean was higher for variable # 3 than that of variable #2. The 95% confidence interval (upper bound = 4.208, lower bound = 2.869) for the death context illustrated the higher variability, in which there was a 95% certainty that the true mean of the death context could fall as low as the higher end of “Inappropriate” and “Slightly Inappropriate” and slightly more than
“Neutral.” The 95% confidence interval (upper bound = 4.905, lower bound = 4.068) for the birth context experienced less variability, in which the true mean would be expected to fall between “Neutral” and “Somewhat Appropriate.” While there was not a drastically positive or negative sentiment within the means or confidence intervals, the difference between the contexts supported Hypothesis 1.

Dependent Variable # 4: Positive Index Based on Word Association in Relation to Advertising in Social Media.

This particular question was a transition question in the survey between the questions that targeted the ad and social media page in the experiment and those that assessed the subjects’ general attitude toward advertising in social media. Subjects were asked to provide at least five words that came to mind when thinking of advertising in social media. The responses were then broken into three categories, positive, neutral and negative. Based upon the number of positive responses, the number was then divided by the total responses and multiplied times 100 to form a positive composite index score. The highest possible score was 100 when all of the word associations were considered positive (i.e. “effective,” “beneficial,” “fun” and etc.) or 0, in which all of the listed responses were negative in nature (i.e. “intrusive,” “annoying,” “spam,” and etc.). However, it is necessary to note that the positive index could be driven downward also by the number of neutral responses (i.e. “cheap,” “Facebook,” “pop-ups,” and etc.) provided by the subject. For the contextual differences, the subjects possessed a considerably more favorable attitude toward social media in the birth context (M=32.710, SD = 33.117) than the death context (M = 7.273, SD = 14.535), with a significance value close to zero (p = 0.001 < 0.05). While the standard deviation for the positive index for those that encountered the birth context was quite large, the 95% confidence interval (upper bound = 40.207, lower bound = 24.416) gave some added perspective to the results. Of those that received the birth announcement context, one would expect the mean to be at least approximately 25%, or ¼ words that subjects associated with advertising in social media in the birth context are, and as high as just over 40% would be positive at the maximum of the interval. Given that powerful neutral words such as social networking brand names and general internet advertising terms can reduce the positive score, this range reflects a quite favorable sentiment among subjects toward advertising in social media in the birth context. On the other hand, the 95% confidence interval of positive word associations in the death context (upper bound = 19.480, lower bound = -5.805) indicated the true mean of the positive associations in the death context would be at most just under 20% of the time. Since the lower bound is an impossible value and the mean is less than seven, the subjects’ general attitude toward advertising in social media were significantly less favorable in the death context in comparison to the birth context, which supported Hypothesis 1.

Dependent Variable # 5: Advertising in social media is helpful in guiding your purchasing decisions.

Statistically significant variable # 5 was part of a series of general questions about advertising in social media and social networking sites. The goal of this set of questions was to examine if there existed any significant differences in the means of the attitudes of subjects in terms of the kinds of ads and contexts they viewed. This question focused on the general role of
advertisements guiding purchasing decisions, an important role of an effective advertisement. The Likert ratings ranged from a one being “Strongly Disagree” to seven representing “Strongly Agree.” As in the previous questions, a rating of four signified a neutral rating, or in this case, “Neither Agree nor Disagree.” Isolating the type of context, subjects that viewed the death contexts (M=3.227, SD=1.749) felt less favorable toward the helpfulness of advertisements in guiding purchasing decisions than those that viewed the birth announcement (M=4.527, SD = 1.804) at a significance level well below 0.05 (p = 0.008 < 0.05). The mean of the death context fell between “Slightly Disagree” and “Neither Agree nor Disagree,” with the average closer to “Slightly Disagree.” On the other hand, the mean of the birth context fell just a bit closer to “Slightly Agree” than “Neither Agree nor Disagree.” Like the other questions, the 95% confidence interval of the death context (upper bound = 4.054, lower bound = 2.501) demonstrated a greater degree of variability, as 95% of observations are expected to exhibit a mean score between “Slightly Agree nor Disagree” or lower. The lower bound fell between “Disagree” and “Slightly Disagree,” which is an indication that the true mean of those with the death context is more likely to fall between “Disagree” and neutral. The 95% confidence interval for the birth context (upper bound =5.018, lower bound = 4.048) gave a less variable range that established the true mean should fall between “Neutral” and as high as “Slightly Agree” in 95% of scenarios. While the attitude toward the helpfulness of advertising in social media in guiding purchasing decisions is not strongly positive for the birth context, it was shown to be greater than the death context at a significant level, which supported Hypothesis 1.

Main Effect # 2: Condom Ads vs. Flower Ads

Table 3: Main Effects Means – Advertisement Type

<table>
<thead>
<tr>
<th>Variable</th>
<th>Condoms</th>
<th>Flowers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opinion of Ad Presence</td>
<td>***3.8158</td>
<td>***4.7692</td>
</tr>
<tr>
<td>Attitude Towards Ad In Experiment</td>
<td>3.8421</td>
<td>4.5641</td>
</tr>
<tr>
<td>Ad Appropriateness Considering Context***</td>
<td>***3.4474</td>
<td>***5.0256</td>
</tr>
<tr>
<td>Positive Index</td>
<td>21.532</td>
<td>29.2521</td>
</tr>
<tr>
<td>Neutral Index</td>
<td>37.9511</td>
<td>38.5256</td>
</tr>
<tr>
<td>Negative Index</td>
<td>40.5169</td>
<td>32.2222</td>
</tr>
<tr>
<td>General Attitude Toward Advertising in Social Media</td>
<td>4.1053</td>
<td>4.3846</td>
</tr>
<tr>
<td>Level of Awareness of Context Marketers Should Have</td>
<td>2.8421</td>
<td>2.6154</td>
</tr>
<tr>
<td>Importance of Ad Congruency to Context</td>
<td>5.1053</td>
<td>5.5128</td>
</tr>
<tr>
<td>More Likely to Click Ad Related to Context</td>
<td>5.5263</td>
<td>5.4359</td>
</tr>
<tr>
<td>More Likely to Click Ad Not Related to Context</td>
<td>3.32895</td>
<td>3.0256</td>
</tr>
<tr>
<td>Advertising is Excessive in Social Media</td>
<td>4.8684</td>
<td>5.1026</td>
</tr>
<tr>
<td>Effectiveness of Ad Placement in Social Media</td>
<td>4.1053</td>
<td>4.5897</td>
</tr>
<tr>
<td>Social Media Advertising is Helpful for Purchasing Decisions</td>
<td>4.0526</td>
<td>4.2564</td>
</tr>
<tr>
<td>Advertising in Social Media Adds Value</td>
<td>3.7105</td>
<td>4.1282</td>
</tr>
<tr>
<td>Opinion Related to Conversation Mining</td>
<td>3.8158</td>
<td>3.641</td>
</tr>
<tr>
<td>Perception of Company Affected by Unrelated Placement</td>
<td>4.9474</td>
<td>5.2308</td>
</tr>
<tr>
<td>Do You Feel Like Ads Track You</td>
<td>1.4211</td>
<td>1.4872</td>
</tr>
</tbody>
</table>

*** - Mean differences significant at the p<0.05 level
The main effect of condom ads vs. flower ads was expected to achieve a significant difference, as the more incongruent nature of the condom ads in both contexts was expected to drive downward the attitudes of the subjects. For the most part, it was shown that no significant differences were supported between the two ad types, except for within two variables: the opinion of the advertisement’s presence and the advertisement’s appropriateness given the context the subject viewed.

**Dependent Variable # 1: Which of the following best explains your opinion of the presence of the ad?**

Like the contrast in contexts, the different advertisements, condoms and flowers, experienced significant differences between their means in terms of attitude toward ad presence. The mean of the condom advertisement (M=3.8158, SD = 1.574) was close to the “Neutral” rating, while the mean for the flowers advertisement (M=4.769, SD = 1.630) fell between “Neutral” and “Slightly Appropriate,” being closer to the “Slightly Appropriate” rating. The more positive attitude toward the flower ads was found to be significant when utilizing the same significance threshold of 0.05 (p = 0.042 < 0.05). The 95% confidence interval for the condom ads (upper bound = 4.137, lower bound = 3.103) showed that the true mean should fall between the ratings of “Slightly Inappropriate” and “Neutral.” While the 95% confidence interval for flowers was slightly more favorable (upper bound = 4.997, lower bound = 3.848) it experienced a greater degree of variability, in which the true mean should fall between just less than “Neutral” and just less than “Slightly Appropriate.” Therefore, despite that neither measure was more than slightly positive or negative in nature; nevertheless, a significant difference occurred between the flower ads and condom ads in terms of the subjects’ opinion of the presence of the ads, which supported Hypothesis 2 that a difference would be exhibited because the flowers ad was more congruent, in general, to the contexts presented.

**Dependent Variable # 2: Considering the context of the page you visited, please indicate the level of appropriateness exhibited by the ad?**

In the second dependent variable that showed a significant difference between the flower and condom advertisements, subjects were asked to also consider the contexts. While this analysis does not consider the interactions between the advertisements within the specific contexts, the mean attitude toward the appropriateness of condom ads were statistically less than the flower ads, which supported Hypothesis 2. The attitude toward the condom ads (M=3.447, SD = 1.655) fell between “Slightly Inappropriate” and “Neutral,” being slightly closer to “Slightly Inappropriate.” On the other hand, the mean of the flower ads (M=5.026, SD = 1.530) was approximately a rating of “Slightly Appropriate,” and higher than that of the condom ads well below the 0.05 significance level (p = 0.001 < 0.05) This result was expected due to the higher overall level of congruency that was predicted to be exhibited by the flower advertisement in comparison to the condom advertisement in both contexts. The 95% confidence interval for the condom ad (upper bound = 3.887, lower bound = 2.830) suggested that the true mean of those that viewed the condom ad should fall between just below “Slightly Inappropriate” and just less than “Neutral.” Meanwhile, the overall sentiment of the appropriateness of the flower ad was just slightly higher, as the 95% confidence interval (upper bound = 4.997, lower bound = 3.804
showed that the true mean should be as high as approximately “Slightly appropriate” and just below “Neutral.”

**Interaction Effects between Context Types and Types of Advertisement**

Surprisingly, there was only one dependent variable that suggested a significant difference among the interactions between the advertisement types and contexts. Therefore, the other variables did not support Hypothesis 3 that significant interactions would occur between the ad congruency and context in terms of the subjects’ attitude toward the ads in the study, as well as in social media, in general.

**Table 3: Interaction Effects – Context Type/Advertisement Type**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Death/Condoms</th>
<th>Death/Flowers</th>
<th>Birth/Flowers</th>
<th>Birth/Flowers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opinion of Ad Presence</td>
<td>3.0000</td>
<td>3.7778</td>
<td>4.2400</td>
<td>5.0667</td>
</tr>
<tr>
<td>Attitude Towards Ad In Experiment</td>
<td>3.3077</td>
<td>3.8889</td>
<td>4.1200</td>
<td>4.7667</td>
</tr>
<tr>
<td>Ad Appropriateness Considering Context</td>
<td>3.0769</td>
<td>4.0000</td>
<td>3.6400</td>
<td>5.3333</td>
</tr>
<tr>
<td>Positive Index</td>
<td>9.2308</td>
<td>4.4444</td>
<td>27.9286</td>
<td>36.6944</td>
</tr>
<tr>
<td>Neutral Index</td>
<td>42.8571</td>
<td>50.7407</td>
<td>35.4000</td>
<td>34.8611</td>
</tr>
<tr>
<td>Negative Index</td>
<td>47.9121</td>
<td>44.8148</td>
<td>36.6714</td>
<td>28.4444</td>
</tr>
<tr>
<td>General Attitude Toward Advertising in Social Media</td>
<td>3.6923</td>
<td>4.1111</td>
<td>4.3200</td>
<td>4.4667</td>
</tr>
<tr>
<td>Level of Awareness of Context Marketers Should Have</td>
<td>2.4615</td>
<td>2.4444</td>
<td>3.0400</td>
<td>2.6667</td>
</tr>
<tr>
<td>Importance of Ad Congruency to Context</td>
<td>4.9231</td>
<td>5.5556</td>
<td>5.200</td>
<td>5.5000</td>
</tr>
<tr>
<td>More Likely to Click Ad Related to Context</td>
<td>5.4615</td>
<td>5.6667</td>
<td>5.5600</td>
<td>5.3667</td>
</tr>
<tr>
<td>Advertising is Excessive in Social Media***</td>
<td>5.3846</td>
<td>4.5556</td>
<td>4.6000</td>
<td>5.2667</td>
</tr>
<tr>
<td>Effectiveness of Ad Placement in Social Media</td>
<td>3.3846</td>
<td>4.2222</td>
<td>4.4800</td>
<td>4.7000</td>
</tr>
<tr>
<td>Social Media Advertising is Helpful for Purchasing Decisions</td>
<td>3.0000</td>
<td>3.5556</td>
<td>4.6000</td>
<td>4.6667</td>
</tr>
<tr>
<td>Advertising in Social Media Adds Value</td>
<td>3.0769</td>
<td>4.0400</td>
<td>4.1667</td>
<td></td>
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<tr>
<td>Opinion Related to Conversation Mining</td>
<td>3.4615</td>
<td>4.1111</td>
<td>4.0000</td>
<td>3.5000</td>
</tr>
<tr>
<td>Perception of Company Affected by Unrelated Placement</td>
<td>5.3846</td>
<td>5.4444</td>
<td>4.7200</td>
<td>5.1667</td>
</tr>
<tr>
<td>Do You Feel Like Ads Track You</td>
<td>1.3846</td>
<td>1.4444</td>
<td>1.4211</td>
<td>1.4872</td>
</tr>
</tbody>
</table>

*** - Mean differences significant at the p<0.05 level

While interacting effects were hypothesized to be more prevalent, there was one dependent variable that indicated a significant difference between the interaction of the context types and the types of advertisements that were presented. Once differences were found using the MANOVA, t-tests were performed to further differentiate which interaction caused the difference between means.
Dependent Variable # 1: Advertising on Social Networking Sites is Excessive

This question was intended to be a reflection of the subject’s general opinion toward the volume of advertising in social media. The significance level of the differences between the means of the interaction of context and advertisement types was found to be $p = 0.008$, which was significant at the $p < 0.05$ level. To determine the interaction(s) most responsible for the difference, t-tests were used to further clarify where the differences had occurred.

In the death context, the mean for the condoms ad ($M = 5.385, SD = 1.502$) was higher than that of the flowers ad ($M = 4.556, SD = 1.333$). However, the difference between the means was determined to be insignificant. The next interaction that was analyzed was between the different contexts and advertisement types for the birth announcement context. The mean for the flowers ad ($M = 5.267, SD = 1.258$) was greater than that of the condoms ad ($M = 4.600, SD = 1.500$), but the difference was only approaching significance ($t = -1.793, df = 53$, two-tailed significance = 0.079).

The last relationships analyzed in this interaction were the difference between the means of the condoms advertisements and flower advertisements across each of the contexts. The mean for the condoms advertisement in the death context ($M = 5.385, SD = 1.520$) was not significantly different from the same ad used in the birth announcement context ($M = 4.600, SD = 1.500$). The same case was true for the flowers advertisement, as the mean for the birth context ($M = 5.2667, SD = 1.258$) was not significantly different than the mean of the advertisement used in the death context ($M = 4.556, SD = 1.333$). Considering the convincing level of significance, it was unclear as to why none of the relationships exhibited significant differences, unless the reasons were related to experimental flaws.

Discussion

Improving the Experimental Design

Before explaining the impact of the findings in this study, it is important to consider the areas of the study that must be improved. In future research, it is possible that contexts that are less polarizing could be used to further research the interaction between advertisement types and contexts. As a starting point, the study was meant to look at two very different contexts that even carried emotional elements to see if differences in contexts existed in social media, in which users have a significantly different attitude toward advertising in those contexts. In future experiments, it would be worthwhile to not only look at two drastically different contexts but to look at a variety of contexts in order to establish a scale that categorizes scenarios that marketers should possibly avoid to achieve the highest probability the user will not act negatively toward their advertisements.

Another issue that could be considered to achieve a greater level of validity is controlling for gender in the design of the social media pages. While finding two different contexts was a priority, it is possible that controlling gender would have further improved the design. Death and birth announcements are common, but there could exist a potential confounding issue that arises when examining the differences between the death announcement of a male and the birth announcement by a female. Thus, controlling the gender of the two pages is worth considering in order to mitigate the potential confounding effects that might occur when examining contexts.
involving different genders. Further, a difference could also occur due to the way a particular gender views the contexts portrayed in the study.

In terms of the advertisements, better types could be used. The problem with the condoms advertisement is while it captures a more incongruent feature with the contexts of birth and death announcements, it could also exhibit confounding variables since condoms are a popular contraceptive. Thus, some subjects might not have necessarily viewed the condoms advertisement as incongruent in the birth announcement, because condoms are related to preventing birth. Further, because different cultures and religions have differing views towards the use of contraceptives, a confounding effect could occur if some subjects possess negative preconceived notions about the use contraceptives. Therefore, a more effective, neutral incongruent ad should have been used that would not have possessed such potential for triggering confounding effects.

Extending beyond the kinds of contexts and advertisements that can be used, the test lacked a strong manipulation check in order to ensure the subjects had noticed the difference between the contexts used. Instead of explicitly asking the subjects a question that determined if they understood that the different contexts involved, the determination had to be based upon the responses in the form of the wall posts at the beginning of the test. In the birth announcement context, the scenario was clear. The female in the profile picture was visibly pregnant with her hands on her stomach and the first comment she made on her profile page was in relation to the announcement of having a baby. On the other hand, the death context was less clear, and this caused some confusion among subjects. The first comments by the coach were related to his team’s big win, and his sister did not announce his death until the middle of the page. The initial idea was to simulate the common practice by many social media users to search an individual’s social networking page after learning about a surprising event or story in the community. However, because the “breaking news” element was never introduced to the subjects, the study was unable to simulate this practice. As a result, several data points had to be eliminated, as many responded to the death context with messages of encouragement about the game instead of recognizing the loss of the individual. This explains why only 129 of the 202 possible data points were able to be utilized. In future examinations of this topic, it would be best to control the layout of the pages more tightly and use contexts that, like the birth context in this experiment, are clear and there is less of a probability for the subjects to misunderstand the role of the individual in the page.

The sample type used was a convenience sample, and a more random sample method within a more predictable population would have yielded a more valid study. There were also issues with the types of subjects that participated in the study. While Amazon’s Mechanical Turk was useful in finding subjects to participate in the study, some individuals did not match the criteria requested. For example, one of the requirements was that the subjects be proficient in the English language. After analyzing some of the wall posts submitted by the subjects, it was clear that not all of the subjects were proficient in English. Some sentences were broken and the spelling of common words was incorrect and did not resemble even popular forms of informal language. In addition, because subjects were paid to complete the study, some found methods to rapidly complete the survey by copying and pasting other posts when they were specifically asked to create a unique post. Thus, in some responses, it was unclear if the subject read the social networking page or had the ability to do so. If a convenience sample must be used in
future attempts for experiments of this nature, it would be important to collect data from a source of individuals that are competent in the language used in the test.

Because several of the data points had to be removed due to various issues related to experimental design and the subjects within the sample, the observations for this study dwindled from 202 to 129. After the realization that that only a portion of those subjects had actually seen an advertisement in the page they viewed, the sample size reduced further to 77 subjects. Because there were 77 subjects spread across four test scenarios, the sample size, N, was inadequate for valid statistical testing, which led to the high variance and standard deviation within the data output. For example, of the 77 accepted observations, only 22 individuals encountered the death announcement context, while 55 viewed the birth announcement context. To further illustrate the issues within the death context, a mere 13 subjects received the condoms ad, while 9 saw the flowers ad. In the birth context, 25 participants viewed the condom ads, and 30 examined the flowers ad. Because N is required to be at least 30 for most statistical tests, more subjects will be required to support the validation of this study. To improve the quality of the results, a multi-stage experimental feedback system should be implemented, so that when the last test run is made, there will not be so many observations that have to be discarded due to problems with experimental design or the competence of the participants in the experiment.

Implications of the Results

Because there were not many dependent variables that achieved the required level of significance, further research and tests must be conducted to establish if the congruency of ads to particular contexts, or conceptual fluency, should be a major consideration by marketers when positioning their ads. Because there were primarily significant differences only between the main effects of the types of contexts and the main effects of the types of ads utilized, this study is limited to focusing on general effects differences versus interaction differences.

The differences in the main effects for the contexts were realized in the questions that emphasized the presence and general attitude towards the ads. Therefore, because the means of the birth context was higher in terms of the general attitude and presence of the ad, it is possible that marketers should consider the contexts in which they are placing advertisements. While there was no conclusion as to the difference in ad types within the specific scenarios, this area should be further researched to discover if contexts similar to death and birth announcements should be avoided by marketers. Because the N was so low, the confidence intervals for these variables were wider, so using more subjects would help discern whether the true mean of these attitudinal questions are more neutral, as the lower end of the 95% confidence intervals suggest or even slightly negative to negative, as the upper bounds suggest. In terms of the positive index measure that was created, the subjects were found to pose significantly less positive word associations with advertising in social media after viewing the death context, so further explanation needs to be explored to see if this sentiment is only because death is such a negative concept, or if marketers should possibly avoid similar contexts that create such negative accessibility to their emotions.

The differences in the main effects of the advertisement types limit the results to the specific contexts used. Again, given the limitations also associated with the selection error and potential confounding variables associated with condoms and flowers advertisements in the contexts used, the significance of the results are quite limited. The two significant factors
discovered, the attitudes towards the presence of an advertisement and the appropriateness of the advertisement, offer some insight. The appropriateness factor is understandable. Regardless of context, it was expected that a flower ad would be considered more appropriate, particularly given the fact that both contexts triggered emotional reactions. However, the ad presence issue could supply some merit for further research. Disregarding the context, the subjects were more positive about the presence of the flower ad than the condom ad. While there were no interacting elements involved with the advertisements within the different contexts, further research should be conducted to determine if the different attitude was attributed to the fact that condoms are simply viewed as a more forbidden, explicit advertisement, or if it is possibly because the subjects felt the condom advertisement was less congruent, or less conceptually fluent, with the contexts used. If that is the case, marketers of condoms should be careful with the contexts in which they place their ads. Even though someone might mention Trojan condoms in a status update or comment about them in a blog, a company could be considered invasive if its advertisements follow the social media user into sensitive contexts that could offend or trigger a sentiment of negativity. Once the negativity has been established, the user would likely be less probable to click on the advertisement or offer for further information.

The only interaction differences found also require that more research be completed to understand how the differences occurred. Interestingly, the interaction of the contexts and advertisements demonstrated a high degree of significance in relation to the attitude toward the volume of advertising in social media. However, upon further review, the only relationship that was close to providing a significant difference was the difference between the use of the ad types in the birth context. But then again, the significance level was only approaching significance (two-tailed significance = 0.079>0.05), which was troubling considering the high level of significance. A possible explanation for this is while the means appeared significantly different, the large standard deviations potentially prevented any differences from being exposed. For example, only twenty-five subjects viewed the condom ad in the birth context, which led to a standard deviation (1.500), which was nearly 0.25 higher than the same measure in the birth context (1.258). While the minimum observations for a t-test is typically thirty observations, the low N for all of the interactions hurt the validity of the t-test.
References


Appendix A – Death Context Example with Incongruent Advertisement

Coach Jared Wilson

Big win for our team last night! One win away!
Like Re-Spiel February 20, 2012 at 2:35 A.M.

Seyn N’Daw

Congrats, Jared! The community is so proud! Do you know what time the finals will be next weekend? I definitely want to clear my schedule for the big game.
Like Re-Spiel February 20, 2012 at 9:47 A.M.

Mary Wilson Sails About Coach Jared Wilson

Just to let everyone know, my brother is no longer with us. We ask that you please give our family space to grieve his loss.
Like Re-Spiel February 20, 2012 at 4:35 P.M.

Quinton Myles

You were like a brother to me, Jared. R.I.P. We had some great times winning State in HS and truly blessed I got a chance to know you.
Like Re-Spiel February 20, 2012 at 5:00 P.M.

Spiel It © 2012
Appendix A (continued) – Birth Context Example with Congruent Advertisement

Rebecca Wright

We found out today that we’re having a boy! Still mulling over names.....
Like / Re-Spiel / February 20, 2012 at 7:35 AM

Sean West

Congrats Rebecca! So how long until I can start training the little guy for the NFL? LOL, jk.... Seriously though, Derrick sounds like a great sports name 😊
Like / Re-Spiel / February 20, 2012 at 9:47 AM

Lauren Hawkins: Spiels About Rebecca Wright

Shout out to my college sorority sister, Rebecca! She’s having a baby boy and I am so happy for her! Love you, girl! 😘
Like / Re-Spiel / February 20, 2012 at 4:35 PM

Tina Maguire

Rebecca, congratulations to you and Tom! I’m sure you guys will do a fine job of raising a strong, healthy little guy. As for names, I always liked Michael.
Like / Re-Spiel / February 20, 2012 at 5:00 PM

Flowerworld.com
starting at $10!
Appendix B

Instructions: On the following screen, you will be taken to a new web page. Please carefully read all of the posts and create your own unique, appropriate response to the scenario you are given. Assume you know the individual on the following page.

Q1 Spiel on Coach Jared Wilson's wall: (Refer to Appendix A for Example)

Q2 Spiel on Rebecca's wall: (Refer to Appendix A for Example)

Q3 Spiel on Rebecca's wall: (Refer to Appendix A for Example)

Q4 Spiel on Coach Jared Wilson's wall: (Refer to Appendix A for Example)

Q5 Did you recognize an advertisement listed on the profile page?
   ○ Yes (1)
   ○ No (2)

   If No Is Selected, Then Skip To End of Block

Q6 What type of product was advertised?
   ○ Gift Bags (1)
   ○ Condoms (2)
   ○ Dietary Supplements (3)
   ○ Flowers (4)
Appendix B (Continued)

Q7 What was the name of the company represented in the ad?

- Slim 'N Fit.com (1)
- Condoms.com (2)
- Supplements.com (3)
- Overstockbags.com (4)
- Flowersdepot.com (5)
- Gaggifts.com (6)
- flowerworld.com (7)

Q8 Which advertisement did you see?

- Image: Flowers ad2 (1)
- Image: Slimnfit2 (2)
- Image: Cheapbags3 (3)
- Image: Condom ad2 (4)

Q9 Which of the following best explains your opinion concerning the presence of the ad?

- Very Inappropriate (1)
- Inappropriate (2)
- Somewhat Inappropriate (3)
- Neutral (4)
- Somewhat Appropriate (5)
- Appropriate (6)
- Very Appropriate (7)

Q10 Which option best describes your attitude towards the ad?

- Very Displeased (1)
- Displeased (2)
- Somewhat Displeased (3)
- Neutral (4)
- Somewhat Pleased (5)
- Pleased (6)
- Very Pleased (7)
Appendix B (Continued)

Q11 Considering the context of the page you visited, please indicate the level of appropriateness exhibited by the ad:

- Very Inappropriate (1)
- Inappropriate (2)
- Somewhat Inappropriate (3)
- Neutral (4)
- Somewhat Appropriate (5)
- Appropriate (6)
- Very Appropriate (7)

Q12 Please submit at least 5 words that first come to mind when you think of advertising in social media.

Word # 1
Word # 2
Word # 3
Word # 4
Word # 5
Word # 6
Word # 7
Word # 8
Word # 9
Word # 10

Q13 What is your general attitude toward advertisements on social networking sites?

- Very Intolerable (1)
- Intolerable (2)
- Slightly Intolerable (3)
- Neither Tolerable nor Intolerable (4)
- Slightly Tolerable (5)
- Tolerable (6)
- Very Tolerable (7)
Appendix B (Continued)

Q14 On a scale of 1-7, what level of awareness should marketers/social networking sites demonstrate toward the context (i.e. the situation) of the page when placing ads? (7 - highest, 1-lowest)

- 7 (1)
- 6 (2)
- 5 (3)
- 4 (4)
- 3 (5)
- 2 (6)
- 1 (7)

Q15 In your opinion, how important is ad congruency (i.e. the ad matching the message)?

- Not at all Important (1)
- Very Unimportant (2)
- Somewhat Unimportant (3)
- Neither Important nor Unimportant (4)
- Somewhat Important (5)
- Very Important (6)
- Extremely Important (7)

Q16 In general, you are more likely to click on an ad if the product relates to the context of the page you visit? (i.e. a subscription to a sports magazine on a sports website)

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)
Appendix B (Continued)

Q17 In general, you are more likely to click on an ad if the product does not relate to the context of the site you are visiting. (i.e. pizza ad on a clothing store's page)

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

Q18 Advertising on social networking sites is excessive.

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

Q19 Currently, how would you describe the effectiveness of ad placement within social networking sites?

- Very Ineffective (1)
- Ineffective (2)
- Somewhat Ineffective (3)
- Neither Effective nor Ineffective (4)
- Somewhat Effective (5)
- Effective (6)
- Very Effective (7)
Appendix B (Continued)

Q20 Advertising in social media is helpful in guiding your purchasing decisions.

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

Q21 Overall, you would say that advertising in social media adds value to your experience.

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

Q22 What is your opinion of social networking sites that mine conversations to better place its advertisements?

- Very Inappropriate (1)
- Inappropriate (2)
- Somewhat Inappropriate (3)
- Neutral (4)
- Somewhat Appropriate (5)
- Appropriate (6)
- Very Appropriate (7)
Appendix B (Continued)

Q23 Your perception of a company is affected when its advertisements are consistently placed in unrelated contexts.

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

Q24 When you visit social networking sites, do you ever feel as if you are being tracked because of the advertisements that are displayed?

- Yes (1)
- No (2)

Q25 Do contexts exist in which marketers should avoid placing ads? If Yes, list some examples. Otherwise, answer type No.

Q26 Please list any additional thoughts that further explain your attitude toward the ad in the context presented in the study. (Optional)