How Digital Conversations Reinforce Super Bowl Advertising

The Power of Earned Media Drives Television Engagement

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The current study investigated the interactive relationship of social-media conversation and brand television advertising during the 2011 and 2012 U.S. National Football League Super Bowl championship games. The Super Bowl often is the most-watched yearly U.S. television broadcast. Results indicated that pre-game and game-day social-media conversations for advertised brands enhanced audience engagement. Television advertisements played a significant role in amplifying social-media conversations about the advertised brands. Overall, the study found evidence that the relationship between traditional television advertising and online social-media conversations was reciprocal, with both media platforms working in tandem to enhance brand engagement.

INTRODUCTION

The Internet and social media radically have changed the way that brands and consumers communicate. They have

- introduced new channels for brand-initiated communication;
- added complexity to connectedness across channels; and
- created new ways in which brands seek to enhance consumer engagement, as evidenced through online conversations, or buzz.

As digital communications have become more powerful marketing tools, one key question that results is how traditional media and social media interact with each other to benefit brands: Can

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Management Slant

- There is a "golden window" for social-media conversations to be an effective multiplier for television advertisements.

- Distributing brand advertising in advance of the Super Bowl game telecast increases the brand-related conversation.

- Consumers who experience advertising before the game likely will be more engaged in the advertising when it airs, participating in social-media behaviors after the game.

- Commercials that are memorable and well liked, rather than memorable or well liked, generate the most post-game buzz.

- Traditional media-advertising and social-media strategies must be viewed holistically and not as mutually independent strategies.

buzz be enhanced by traditional media, and/or can traditional advertising effectiveness be increased by buzz? The current study investigated, in detail, the relationship between social-media conversations and brand advertising in the context of the annual U.S. National Football League (NFL) Super Bowl championship game.

LITERATURE REVIEW

The rapid growth of social media has led to speculation that it might supplant television as the primary mode of modern advertising (Goldman, 1998; Haley, 2006). The exponential increase in spending on advertising in social media—from $5.1 billion in 2013 to a projected $15 billion in 2018 (BIA/Kelsey Forecasts, 2014)—indicates that advertisers increasingly are attracted to this medium.

At the same time, research has revealed that television advertising, too, is seeing a resurgence of interest for its ability to develop brands (Rubinson, 2009; Binet and Field, 2009; Sharp, Beal, and Collins, 2009) and a resurgence of social media reinforcing the impact of television advertising (Stipp, 2011). Many advertisers are using their advertising to encourage interactive online behaviors through technologies such as hashtags, QR codes, and other links. Their efforts have been supplemented by the enhanced Web applications of mobile and tablet platforms.

A particularly symbiotic relationship seems to be developing between television advertising and social media that is greater than comparable relationships between other media as connectivity technologies change consumer behavior. In fact, as was found during the Super Bowl in 2011 and 2012, a substantial portion of the audience engaged in interactive conversations during the game; many used mobile devices and computers to browse the Internet and Tweet or send text messages (See Table 1). The attitudinal data were collected as part

of an annual Super Bowl study conducted by G&R Cooperative, LLC.[1] Participants from a commercial panel responded to a survey on Monday after the Super Bowl up until 2012. In 2012, data were collected both prior to and after the game broadcast.

Other studies have examined relationships between traditional and social media. Online, or electronic, word of mouth (eWOM) and advertising have been shown to stimulate Web searches (Graham and Havlena, 2007; Keller and Fay, 2009; Trusov, Bucklin, and Pauweis, 2009; Rockwood, 2012), and traditional media spending has been found to be one of the best predictors of social-media buzz for new product introductions (Niederhoffer et al., 2007).

When traditional advertising is coordinated with Internet campaigns in special events (i.e., the Olympics), there is increased Google search activity (Zigmond and Stipp, 2010). Further, scholarly research has shown that WOM—both online and offline—is influenced by advertising (Allsop, Bassett, and Hoskins, 2007; Graham and Havlena, 2007;

[1] G&R Cooperative, LLC, formerly Gallup and Robinson, has provided research and consulting services to the advertising industry since 1948. The Annual Super Bowl study has been conducted since 1991 assessing advertisement effectiveness and game viewing attitudes and behaviors. G&R data is not property of Gallup.

Steinberg and Shultz, 2011). Web-site views in certain product categories also have been stimulated by eWOM (Learmouth, 2012) as well as by advertising (Goetzl, 2010; Pfeiffer and Zinnbauer, 2010).

Still other synergies have been demonstrated:

- Stimulating brand discussion is connected to online social-media behaviors and long-term buyer behaviors; for example, online display and search advertising positively influence Web-site visits, online search, and likelihood of purchase, both on- and off-line (Fulgoni and Morn, 2009).
- Online buzz influences purchase intent (Keller and Fay, 2009; Prendergast, Ko, and Yuen, 2010), and, a Google-sponsored research study found, online search influenced offline buying (comScore, 2006).
- Facebook fandom increased the likelihood of purchase, consideration, and recommendations (Sverdlov, 2012).

The foregoing effects have been found for online brands, new consumer goods, and select product categories. In 2013, The Coca-Cola Co. acknowledged the positive

TABLE 1
Behavioral Engagement during the Super Bowl

	2011	2012
Behaviors During the Game		
When watching the Super Bowl, pay much more or more attention to the advertising compared to ads appearing in TV programs typically watched	70.1%	68.0%
Used a mobile device to interact with advertisers in the game while watching the Super Bowl	n.a.	8.2%
WOM Behaviors During the Game		
Talked about commercials in the game while watching the Super Bowl	53.8%	63.1%
Browsed the Internet/visited Web sites while watching the Super Bowl	17.9%	21.3%
Texted/Tweeted while watching the Super Bowl	16.2%	14.8%

Source: G&R Annual Super Bowl Study

role of social media on brand engagement but questioned the influence of social-media conversation on short-term sales (Neff, 2013).

The current study investigated how online social-media conversation helped enhance advertisements and brand engagement in the context of the annual NFL Super Bowl. Specifically, the authors asked the following questions:

• Does social-media conversation that occurs before the game-day influence advertisement and brand engagement?

• Does advertisement engagement influence subsequent post-game social-media conversation?

Advertisement engagement is a critical factor, as engaged consumers more likely will attend to—and process—advertising and talk about brands (Wang, 2006).

The Super Bowl consistently is the highest rated program in U.S. advertising, considered by many as the biggest annual marketing event (Tomkovic, Yelkur, and Christians, 2001). In addition, no media vehicle provides the kind of super-charged selling environment that the Super Bowl does. It is as much anticipated for the television advertisements as for the game itself. Viewers just do not tolerate Super Bowl advertising; they seek it out and embrace it (See Table 1). Many marketers, in fact, consider live competitive events like the Super Bowl telecast to be the future of mass-audience programming.

A large number of viewers reported talking about commercials in the Super Bowl before and after the game and during the game (See Tables 1 and 2). This is conversation that occurs naturally with little stimulation needed by brands, and the conversational buzz exists for a period of time before and after the airing of advertisements. The authors of the current study expected these high levels of audience engagement to accentuate the relationship between social-media conversation and television advertising.

There are a few studies that examine the impact of Super Bowl advertisements on social media and vice versa. Advertisements that prompt higher levels of emotional engagement generate more online buzz (Seifert *et al.*, 2009). This would suggest that return on investment for Super Bowl advertising may be enhanced by an extended level of conversation. Humorous and highly creative executions and meaningful cause-related relationships also positively influence online conversation (Steinberg and Shultz, 2011), possibly helping to maximize the brand's investment.

In one scenario, pre-game traditional media coverage for the Super Bowl was found to have influenced post-game online social conversation (Nail, 2007), and advertisers who pre-announced and previewed their Super Bowl advertisements online benefited from higher levels of post-game conversation.

Understanding the synergy between traditional and new media is a critically important issue for advertisers (Young, 2014). Consumers enjoy watching and talking about Super Bowl television advertising (See Tables 1 and 2). Social media provide platforms for consumers to share their views about brands via WOM and influence sales (Keller and Fay, 2012). Brand meaning traditionally has been under the tight control of the advertiser in the offline environment; however, consumers, along with the advertiser, become "co-producers of brand value" when they participate in conversations that take place in the digital environment (de Chernatony, 2000). It is this rapidly expanding conversation—and the extent to which it can be stimulated by advertising (and, in turn, enhance advertisement engagement)— that is the focus of this research.

RESEARCH QUESTIONS AND HYPOTHESES
Previous research has examined various linkages between social-media

TABLE 2
Behavioral Engagement Before and After the Super Bowl

	2011	2012	
	After	Before	After
WOM Behaviors Occurring Before and After the Game			
Talked with friends about the advertising you thought you would like before/after the Super Bowl broadcast	52.1%	30.3%	44.3%
Talked to friends about the advertising you thought you would not like before/after the Super Bowl broadcast	35.9%	13.9%	27.0%
Commented online or Tweeted about the Super Bowl advertising before/after the Super Bowl broadcast	38.5%	23.9%	30.3%
Online and Offline Media Behaviors Before and After the Game			
Looked at one or more commercials online before/after the Super Bowl broadcast	27.4%	38.5%	25.4%
Read or listened to commentary about the Super Bowl advertising on TV, in a newspaper, online before/after the Super Bowl broadcast	13.7%	8.2%	12.3%

Source: G&R Annual Super Bowl Study

conversation and advertisement and brand engagement relationships. The current authors explored the following question:

To what extent does social-media conversation stimulate advertisement and brand engagement, and reciprocally, to what extent does advertisement and brand engagement influence social-media conversation?

The authors' findings indicate that a positive relationship exists between the two media, enhancing both advertisement and social-media conversation.

Specific advertisements may have an immediate influence on Internet search activity (Zigmond and Stipp, 2010), as was demonstrated in five case studies for brands advertised during the Olympic games and late-night television. What's more, increased Web search for information precedes—and is related to—both on- and off-line purchase behavior (comScore, 2006; Fulgoni and Morn, 2009).

The use of search in response to brand exposure in the media has led to "Zero Moments of Truth" (Lecinski, 2012), where turning to "Google" is the first action taken by consumers. It could be said that this twenty-first-century response to the traditional purchase funnel is reflective of a consumer's engagement with brand communication. This led to the current study's first research question:

RQ1: Will Super Bowl advertising, in aggregate, create a positive lift in Web activity from before to after advertising exposure?

RQ1 was a replication and extension of past-study results, and the authors expected there would be a convergence in the pattern of on-line behaviors. "Liquid" media—consumers using multiple media (traditional and digital)

simultaneously—has replaced traditional "linear" media (Young, 2014). In this context, the concept of liquid media no longer is passive viewing; it is interactive. Viewers of the Super Bowl have reported engaging in Web activity during the game (See Table 1). Thus, the authors expected:

H1a: Super Bowl advertising, in aggregate, will create a positive lift in Internet search activity from before to after in-game advertising exposure.

In developing brand-communication campaigns, traditional models often sought to establish brand salience as measured by recall and recognition. Brand preference was measured by persuasion and/or brand imagery as indicated by advertisement "liking" and/or attitude change. In the digital environment, brands now must use advertising to establish interpersonal connectedness through "talkability" and sharing (Willie, 2007).

WOM long has been an important factor in extending the impact of a single advertising message, but social media increasingly have become immediate enablers of consumer action. Advertising stimulates both off- and online WOM activity, and consumers have many opportunities to engage in conversation through online forums, such as Facebook, Twitter, YouTube, blogs, discussion boards, and so on. The authors of the current study expected that advertising would not simply affect Internet search but also show a similar pattern of stimulating on-line conversations. Thus they expected:

H1b: Super Bowl advertising will create positive lift in the volume of social-media conversation from before to after advertising exposure.

RQ1 examined advertising effects in an event-study format, replicating specific effects of past studies in a more general context, and provided external validity to the data used in the current study.

The nature of the social conversations surrounding Super Bowl advertisements should reflect high levels of audience engagement. "Engagement" actually has no established universal definition or measurement, even though it is a concept that receives much scrutiny among marketers and marketing researchers (Woodard, 2006; Plummer et al., 2006). Indeed, some have said that we have entered into an "age of engagement" with social currency being a primary objective (Carroll, 2005).

Advertising and brand strategy that is engaging creates something to talk about, involvement, participation, and social-media distribution (Carroll, 2005). The authors of the current study view engagement to be a reflection of the extent to which the audience finds the advertisements interesting, involving, and having some effect on the viewer. These effects would be tied to traditional measures related to memory, "liking," persuasion, and/or behavioral response.

The reciprocal nature of the relationship between social-media conversation and advertisement engagement was of primary interest that led the current authors to ask:

RQ2: Does brand-related positive social-media conversation positively influence advertisement engagement and, conversely, does advertisement engagement positively influence positive social-media conversation?

Consumer engagement with advertising is influenced by context, which, in television media, would be the programming environment (Young, 2014). The authors of the

current study have observed that a majority of viewers very much like to watch both football games and the advertisements in the Super Bowl more so than during regular television programming (See Table 3). The high level of viewer interest in Super Bowl programming would be reflective of an environment where active processing of stimuli is taking place.

Because of this high level of interest in the Super Bowl and the elevated status given to commercials aired during the game, the authors of the current study expected to observe the following relationships:

H2a: Social-media conversations that take place prior to (and on) game day will positively influence viewer engagement with advertisements aired during the Super Bowl.

H2b: Social-media conversations that take place on game day and advertisement engagement will positively influence post-game-day social-media conversation.

The authors of the current study observed that social-media discussion resulting from advertising in the Super Bowl generally focuses on two objects: the creative execution and the brand. Each is a conversation generator. And, often, the chatter is focused on the interaction between the two.

Doritos, the food snack produced by the PepsiCo subsidiary Frito-Lay, for example, was the recipient of much social-media discussion before, during, and after the game because of the brand's consumer-involvement strategy from advertisement development to presentation. Consumers not only talked about how much they liked a particular

commercial but invariably also discussed the brand. Given the interest in the brand, the authors also examined the extent to which conversation and advertisement engagement influenced brand engagement.

Engaging with the brand brings consumers a step closer to the ultimate goal of purchase, thus the authors' interest in the following research question:

RQ3: Do advertisement engagement and positive social-media conversation influence brand engagement?

Because it has been shown that online buzz can influence purchase intent and both on- and off-line sales, the authors expected that positive social-media conversation and advertisement engagement would have a positive influence on brand engagement. Although not the focus of this study, the relationship between on-line buzz and purchase behavior may be enhanced through familiarity (Zajonc, 1968), which potentially would influence a consumer's tendency to recommend a brand.

The extent to which consumers are willing to recommend a particular brand to another consumer then becomes an important influence factor in the purchase process. Brand users who are Facebook "fans" of a brand more likely would recommend to friends than brand users who are not Facebook fans of a brand (Sverdlov, 2012), perhaps reflecting a higher level of emotional engagement with the brand.

These types of recommendations have been found to influence purchase behavior (Reichheld, 2003). Thus, the current authors expected the following:

H3: Social-media conversations that take place on game day and advertisement engagement

will positively influence brand engagement.

METHODOLOGY

Data for this study related to 68 advertised brands during the 2011 and 2012 Super Bowl games. Three different sources were used to develop a single database for analysis:

- **Advertising Performance Data**
  "Advertisement and Brand Engagement" measures used in the study have been collected by G&R as part of the firm's Super Bowl advertising study conducted annually since 1991. Data were collected from a commercial panel on the Monday after the Super Bowl. Advertisement engagement was operationalized as the result of the communication effects related to memory, affective response, and persuasion.

  Measures of advertising performance included
  ✧ aided and unaided recall (the percentage correct, ranging from 4.3 percent to 82 percent),
  ✧ advertisement "liking" (top-two box percent, ranging from 48.5 percent to 85.9 percent),
  ✧ persuasion (top-two box percent, ranging from 15.4 percent to 61.9 percent), and
  ✧ a variety of other consumer game-viewing and advertising-related information.

Advertisement engagement was represented as the *product* of the three advertisement performance variables, expressed as a percentage:
✧ recall,
✧ advertisement liking, and
✧ persuasion.

Brand engagement was represented by the likely-to-recommend/Net

Promoter Score gathered for a subset of 33 brands across the two-year period of the study.

• **Social-Media Conversation Data**
Social-media conversation data for 33 brands in 2011 and 35 brands in 2012 were compiled by a prominent social-media analytics provider that collects conversations from a variety of publicly accessible platforms, including Facebook, Twitter, YouTube, blogs, forums, and discussion boards.

More than 400,000 conversations with mentions of the brands advertised and Super Bowl were sampled from January 1, 2011 to February 28, 2011, and January 22, 2012 to February 12, 2012. Mention data were trimmed to produce equivalent time periods corresponding to two weeks prior to and one week after the Super Bowl.

The data compilation produced more than 330,000 conversations for the analysis that were also coded for positive (19 percent), negative (8 percent), and neutral (73 percent) sentiment.

Conversations were aggregated into pre-game-day, game-day and post-game-day categories.

✧ Pre-game-day encompassed the two-week period prior to the Super Bowl (2011: January 23 to February 5; 2012: January 22 to February 4).

✧ Game-day occurred on the day of the Super Bowl (2011: February 6; 2012: February 5).

✧ Post-game-day covered the period of one week after game day (2011: February 7 to February 13; 2012: February 6 to February 12).

These time periods were selected based on prior research that found social-media activity had a "long neck, not a long tail" (Nail, 2007). Volume of social-media conversation similarly was aggregated to determine level of lift pre- to post-game conversation.

The data for social-media conversation and advertising effectiveness were summarized and consolidated into a single data set composed of 68 brands that advertised during the 2011 and 2012 Super Bowl games.

Positive social-media conversation was used, given findings of past research indicating that positive conversation had a positive effect on liking; negative conversation was found to have no influence (de Vries, Gensler, and Leeflang, 2012). Positive social-media conversations were summarized for each brand to represent the volume of conversation occurring prior to game day, on game day, and post-game day.

• **Internet-Search Data**
Google Insights for Search[2] was the source for search activity data (Zigmond and Stipp, 2010). This tool allowed for the collection of search-term activity using the Google search engine.

The data were collected for a user-defined time period (as brief as one month) and could be downloaded into spreadsheet format that provided daily search activity. Google did not provide the raw data on search-term activity; thus the results were based on anonymized search logs and provided a volume index statistic for specific search terms.

This metric was represented as a percentage of search volume based on the peak search volume for the specified time period. This peak volume point—attained on one day during the user-defined time period—was indexed at 100, and search volume for all other days within the period was presented relative to this peak.

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[2] *Google Insights for Search was merged into Google Trends in September 2012.*

To collect these data, a series of queries using Google Insight were taken for the months of January and February in 2011 and 2012. Search queries were conducted for Super Bowl brand advertisers in 2011 (33 brands) and 2012 (35 brands). Multiple queries for each brand were made for different search terms that referenced both individual brand names and the Super Bowl.

Search-activity data were downloaded into spreadsheet format, and the daily search activity then was trimmed to focus on the 22-day time period of interest for each year. Results then were averaged across the brands where search activity peaked on the same day (all brand searches with an index score of 100 on the same day). Search activity peaked the day after the game for a majority of brands advertised during the 2011 and 2012 Super Bowls (February 7 and February 6, respectively).

The first research question focused on the relative frequency performance of each brand on Web searches and social-media conversation before and after Super Bowl game day. The social-media conversation and advertisement and brand engagement relationships of interest in the last two research questions were examined using regression analyses.

RESULTS
The Super Bowl is an event in which consumers have great interest, as was demonstrated in the current study's survey data:

• Almost 60 percent to 75 percent of viewers "liked" or "loved" watching the Super Bowl more than they "liked" regular television programming (See Table 3).

• More than 50 percent of viewers "liked" watching Super Bowl advertising more than they "liked" advertising appearing in regular television programming.

TABLE 3

Attitudes toward the Super Bowl, Advertising, and Super Bowl Advertising

	2011	2012
Commercials during the game were the most important part of the Super Bowl broadcast this year	23.1%	19.7%
Love or like it a lot watching Super Bowl compared to other TV programs	57.2%	74.6%
I like to watch advertising on the Super Bowl more than regular television advertising	53.8%	74.6%
I like to look at advertising	28.2%	33.6%
Super Bowl had advertising that I felt uncomfortable watching.	16.2%	15.6%

Source: G&R Annual Super Bowl Study

- A smaller portion of viewers (19 percent to 23 percent) said that the commercials were the most important part of the Super Bowl broadcast.
- Approximately 70 percent of viewers said they paid more attention to advertisements during the Super Bowl than advertisements aired during regular television programming (See Table 1).

These attitudes toward the Super Bowl translated into related behaviors. In fact, a substantial number of viewers said they

- talked with friends about the commercials;
- browsed the brands and watched the advertisements on the Internet;
- Tweeted, sent text messages, and posted comments; and
- read commentary online (See Tables 1 and 2).

H1a: Super Bowl advertising, in aggregate, will create a positive lift in Internet search activity from before to after in-game advertising exposure.

Data from Google Insights were analyzed to investigate H1a. Google searches for a majority of brands (86 percent) peaked the day after the Super Bowl (See Figure 1). The remaining brands had Internet search-volume peaks either before or more than one day after game day.

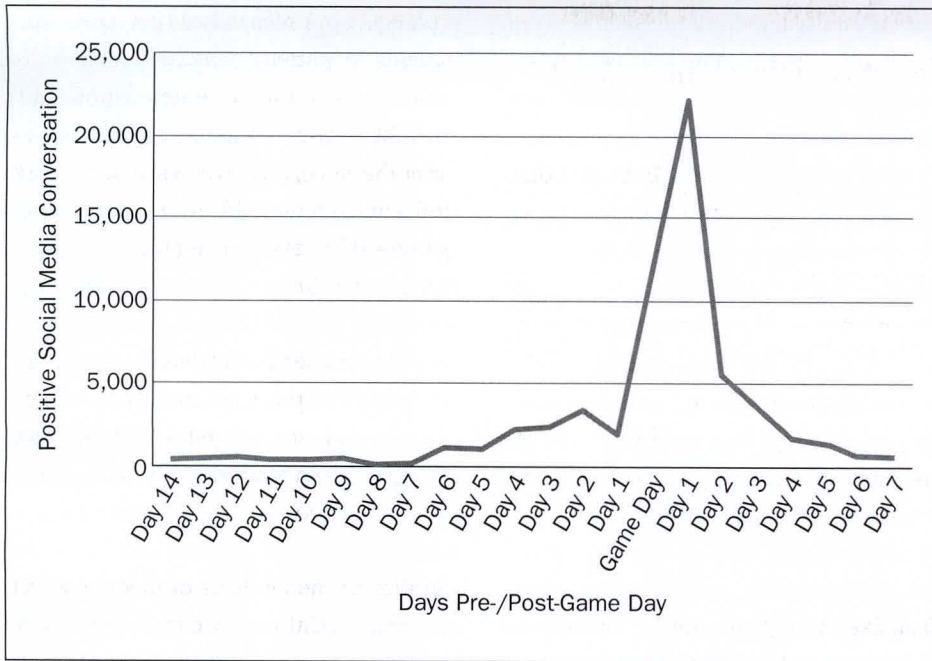After aggregating, search-volume data were averaged for the two weeks prior to and one week after game day. These data showed a pattern consistent with prior research. For brands where the Google Insight Searches Index peaked the day after the game, there was a statistically significant combined lift of 17.2 points (pre-game = 0.25 versus post-game = 0.422; $z = 2.011, p < 0.05$).

H1b: Super Bowl advertising will create positive lift in the volume of social-media conversation from before to after advertising exposure.

Similar to the analysis of Google search volume, social-media conversation covered the same 22-day period and revealed a similar distribution for positive social-media conversation (See Figure 2). Daily mentions were summarized for two weeks before and one week after game day, resulting in average pre-game-day and post-game-day proportions. Analysis of more than 60,000 positive social-media
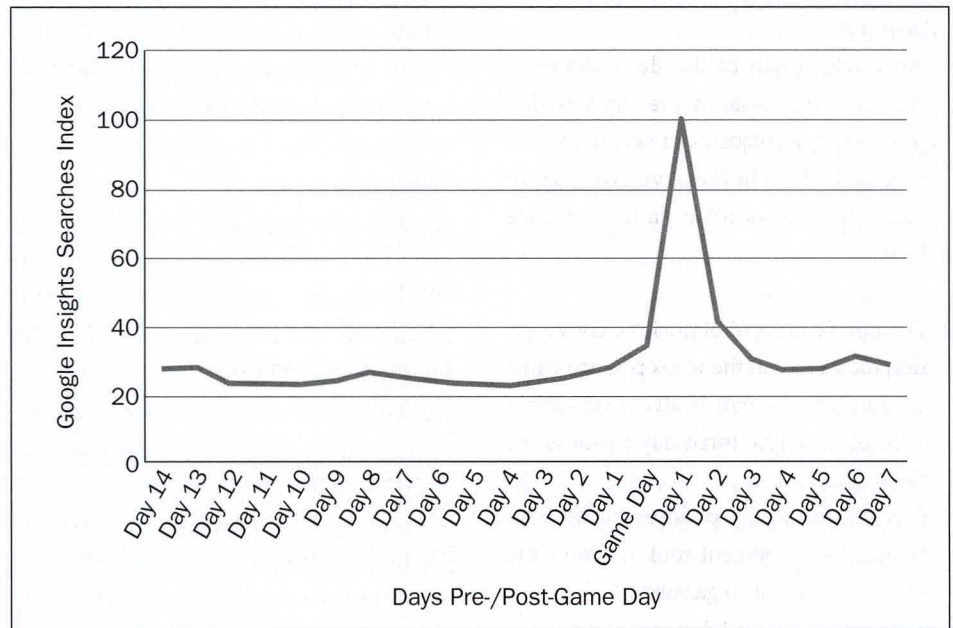
Figure 1 Average Google Insight Searches Index for Brands with Day-after Super Bowl Search Peak—2011 and 2012 Combined

Figure 2 Positive Social-Media Conversations for 2011 and 2012 Combined

RQ2: Does brand-related positive social-media conversation positively influence advertisement engagement and, conversely, does advertisement engagement positively influence positive social-media conversation?

RQ3: Do advertisement engagement and positive social-media conversation influence brand engagement?

Results for RQ2 and RQ3 focused on the relationship between positive social-media conversation and advertisement and brand engagement. The objective was to examine the direct effects of pre-game and game-day positive social-media conversation on advertisement engagement, and advertisement engagement on post-game positive social-media conversation.

H2a: Social-media conversations that take place prior to (and on) game day will positively influence viewer engagement with advertisements aired during the Super Bowl.

conversations showed a combined lift of 32.7 points from pre- to post-game day (pre-game = 0.233 vs. post-game = 0.56; z = 126.04, $p < 0.001$). These results supported H1a and H1b.

An examination of the daily distribution of positive social-media conversation revealed that a majority of social conversation took place in the seven days prior to and three days after game day (See Table 4):

- Overall, 20 percent of positive conversation took place in the week prior to game day, and almost half of all conversations took place in the three days after game day.
- For pre-game-day positive social conversation, 82 percent took place in the seven days prior to game day.
- After game day, 88 percent of positive social conversations occurred within three days after the game. Looking more closely at this post-game period—as the publicity effect

is thought to be important for enhancing the efficiency of the Super Bowl advertising investment—it can be seen that conversation volume substantially increased on the day after the game (See Table 4) and then declined dramatically over the next three days.

TABLE 4
Positive Social-Media Conversation Distribution

Positive Social Conversation	Percent of Total Positive Conversation	Percent of Positive Conversation Occurring Pre- & Post-Game*
7 days prior to game day	19.1%	82%
Game day	20.7%	
3 days after game day	49.3%	88%
		Day-to-day change**
Day 1 after game	35.1%	69%
Day 2 after game	8.8%	−75%
Day 3 after game	5.4%	−38%
Day 4 after game	2.7%	−51%

*Percent of positive conversation within the 7-day pre- or 3-day post-game period.
**Percent change from game day (Sunday) to day after (Monday)

For H2a, pre-game-day and game-day positive conversation should have a positive direct influence on advertisement engagement. To isolate the direct effect of game-day conversation on advertisement engagement, pre-game-day positive conversation was regressed on game-day positive conversation. This reflected the expected time-bound relationship. There was a strong positive relationship (See Table 5, Regression 1).

H2b: Social-media conversations that take place on game day and advertisement engagement will positively influence post-game-day social-media conversation.

To investigate the direct effects of both pre-game and game-day positive social conversation on advertisement engagement,

residuals for game-day conversation were used in the subsequent regression analyses to address multi-colinearity issues between the two variables.

The allocation of shared variance between the two variables to pre-game-day conversation was based on their time-bound relationship. Brands from both years were pooled for an adequate sample size to estimate the model effects. Game-day positive conversation and advertisement engagement then were regressed on post-game-day positive conversation to investigate H2b (See Table 5).

Pre-game-day and game-day positive social-media conversation were significantly and positively related to advertisement engagement (See Table 5, Regression 2), with pre-game conversation (0.459) stronger than game-day conversation (0.300). Both variables combined

explained approximately 28 percent of the variance in advertisement engagement.

Game-day positive conversation and advertisement engagement then were regressed on post-game positive conversation to investigate interactive relationships (See Table 5, Regression 3). Results showed that both variables were significantly and positively related to post-game positive conversation with a relatively substantial percent of variance explained (41 percent).

Advertisement engagement (0.327) had slightly less influence than game-day conversation (0.476). Consistent with H2a and H2b, pre-game and game-day social-media conversation positively influenced advertisement engagement, and advertisement engagement positively influenced *post-game* social-media conversation.

The authors examined the interaction between advertisement engagement and the volume of positive social conversation (See Table 6). For the three independent variables in Regressions 2 and 3, the highest- and lowest-performing brands were identified, with the top and bottom 25 percent isolated for further analysis; mean performance on the dependent variables was calculated. These two quartiles were selected for examination based on Tukey's Interquartile Range (Hoaglin, Mosteller, and Tukey, 1983).

Examining the variables involved with Regression 2, the authors found that the top 25 percent of brands based on pre-game positive social conversation scored higher on the advertisement engagement variables of recall and advertisement liking. The top 25 percent of brands for game-day conversation also scored higher on both recall and advertisement liking.

For Regression 3, the top 25 percent of brands for both game-day positive conversation and advertisement engagement generated almost four to 12 times the post-game positive social conversation volume of the bottom 25 percent (See Table 6, column 5).

TABLE 5

Regression Analyses of Positive Social-Media Conversation and Advertisement and Brand Engagement

Dependent Variable	Independent Variable	B	R-square	F	df	p-value
Regression 1: Game-Day Positive Conversation	Pre-Game-Day Positive Conversation	0.726**	0.53	74.774	1, 67	0.001
Regression 2: Advertising Engagement	Pre-Game-Day Positive Conversation	0.459**	0.28	14.148	2, 66	0.001
	Game-Day Positive Conversation	0.300**				
Regression 3: Post-Game-Day Positive Conversation	Game-Day Positive Conversation	0.476**	0.41	24.547	2, 66	0.001
	Advertising Engagement	0.327**				
Regression 4: Brand Engagement	Game-Day Positive Conversation	0.292*	0.45	13.828	2, 30	0.001
	Advertising Engagement	0.485**				

**p < 0.01; *p < 0.10

TABLE 6

Independent Variable Performance for Top and Bottom 25 Percent of Brands

	Dependent Variables				
	Advertising Engagement			Post-Game Positive Conversation	Brand Engagement [Net Promoter
Independent Variables	[Advertising Recall—%]	[Advertising Liking*]	[Persuasion*]	Volume	Score**]
Pre-Game Social Conversation					
Top 25% of Brands	44.1%	77.3%	40.2%		
Bottom 25% of Brands	26.9%	69.3%	43.0%		
	p < 0.01	p < 0.05	n.s.		
Ratio Top/Bottom 25%	1.6	1.1	0.9		
Game-Day Social Conversation					
Top 25% of Brands	42.7%	76.8%	42.8%	1223.8	41.9
Bottom 25% of Brands	23.5%	65.9%	39.3%	100.8	23.5
	p < 0.001	p < 0.01	n.s.	p < 0.001	p < 0.05
Ratio Top/Bottom 25%	1.8	1.2	1.1	12.1	1.8
Advertising Engagement					
Top 25% of Brands				661.9	43.3
Bottom 25% of Brands				183.6	22.7
				p < 0.05	p < 0.01
Ratio Top/Bottom 25%				3.6	1.9

*Top 2 box score = 5-point scale
**Net Promoter Score converted to 100-point scale
***Advertising engagement and post-game social conversation measures n = 34; brand engagement measure
Game-day conversation n = 18; and Advertising engagement n = 22

Interestingly, there was no significant difference between the top and bottom 25 percent on persuasion. On the surface, it would appear that persuasion change would be a logical result of enhanced recall and liking, but this is not necessarily the case. In one scenario, Super Bowl commercials that were well liked and engaging did not necessarily translate into enhanced persuasion and purchase intent (Communicus, Inc., 2012). Further, consumer online conversations had greater influence on brand affinity, purchase intention, and purchase than did paid media (Communicus, Inc., 2014).

The last research question (RQ3) examined the relationship between game-day positive social-media conversation and advertisement engagement with brand engagement. Here brand engagement reflected the extent to which someone would recommend/promote the brand to other people. The results showed that both game-day positive conversation (.292) and advertisement engagement (.485) were positively related to brand engagement (See Table 5, Regression 4). These two variables accounted for 45 percent of the variance in brand engagement. It is important to note that these results were based on a reduced number of brands (33), but still provided statistically strong results supporting H3.

A more detailed examination of brand performance showed the top 25 percent of brands for both game-day positive conversation and advertisement engagement enjoyed higher levels in Likely to Respond/Net Promoter Score than did the bottom 25 percent of brands (See Table 6). Although this was not specifically hypothesized, the authors also expected that brand engagement would influence post-game conversation; however, data limitations precluded an extensive investigation of this relationship.

Brand engagement was measured on the first Monday after Super Bowl Sunday, with positive post-game social-media conversation measured for the week after game day. Brand engagement and post-game positive social-media conversation

were positively correlated ($r = 0.620$; See Appendix). Advertising engagement and social-media conversation were positively related to a consumer's motivation to recommend the brand.

DISCUSSION
Super Bowl Advertising and Web Activity: A Snowball Effect

The Super Bowl is a signature event not only for the game itself but for brand promoters. With a viewership of more than 100 million, advertisers must be willing to spend as much as $4.5 million per 30-second ad spot for the 2015 Super Bowl (Busbee, 2014). With the widespread usage of instant social-media platforms like Twitter and Facebook, combined with smartphone technology, in the cyber world people are talking about advertisements (and/or Tweeting and/or texting) before, during, and after the game.

RQ1 sought to explore the patterns of behavior and test for influence of advertising on Web activity, specifically:

RQ1: Will Super Bowl advertising, in aggregate, create a positive lift in Web activity from before to after advertising exposure?

The first hypothesis associated with this question sought to replicate earlier findings (Zigmond and Stipp, 2010) and extend them to a broader assortment of brands and advertising. In the current study, the distribution of search volume was lower prior to game day than it was after game day.

This pattern held for a majority of brands, with search volume peaking on the day after the Super Bowl. The major difference from Saturday to Monday was the Super Bowl and the significant effort put into promoting and airing brand advertising. Brands that advertised in the Super Bowl saw a positive lift in search volume. This replication of the effects extended the earlier findings

(Zigmond and Stipp, 2010) from five brand case studies—some with advertising in an event-like forum similar to the Super Bowl—to a broader range of brands from a variety of different product categories.

The second hypothesis associated with RQ1 demonstrated that on-line activity in the form of positive social-media conversation had a pattern of behavior similar to that of other Web activities, specifically Web search behavior.

These findings replicated the social-media distribution for one Super Bowl game (Nail, 2007), thus demonstrating that social-media conversational behavior was fairly consistent for an event such as the Super Bowl. The earlier description of the post-game conversation effect—having a "long neck not a long tail" (Nail, 2007)—was apparent in the current study. A majority of pre-game conversation, however, occurred within the week prior to game day.

Thus, social-media conversation related to Super Bowl advertising took place within a very narrow and concentrated, 7- to 10-day period. Although it may be possible to extend the social-media conversation over a longer period of time, consideration should be given to whether the added publicity is cost-effective and, even though the Super Bowl is the mega-advertising event of the year, how long consumers will be interested in having that conversation.

It has been shown that brands pre-releasing advertisements prior to the Super Bowl benefitted from higher post-game conversation (Nail, 2007). The data in the current study allowed for only limited analysis, showing that a majority of brands—regardless of advertisement pre-release—enjoyed a significant increase in post-game positive conversation. A small number of brands pre-releasing actually saw a decrease in post-game positive social-media conversation.

Advertising and Social Media Synergy

RQ2, the primary focus of this study, stated: Does brand-related positive social-media conversation positively influence advertisement engagement and, conversely, does advertisement engagement positively influence positive social-media conversation?

The results indicated that both pre-game and game-day positive social-media conversation had a positive influence on advertisement engagement. Conversation that took place prior to game day appeared to be more strongly related than positive social-media conversation occurring on game day. It is also important to note that the conversation that took place during the week prior to the Super Bowl did influence game-day conversation and viewer engagement with brand advertising during the Super Bowl:

- Brands that received higher volumes of positive pre-game-day social-media conversation generated higher levels of recall and advertisement liking.
- Brands receiving higher levels of social-media conversation were more liked but not necessarily more persuasive.

This is similar to earlier findings that liking of Super Bowl commercials did not always translate into increased sales (Communicus, Inc., 2012).

The relationship between advertising and social-media conversation is reciprocal: The authors of the current study found that game-day positive social-media conversations and advertisement engagement both were positively related to the volume of post-game positive conversation.

Some advertisers have generated this volume without the assistance of social-media conversation because they had great creative execution (Volkswagon in 2011) or were subject to unwanted controversy (Groupon in 2011). However, the combination of advertisement engagement with positive social-media conversation

has helped to more consistently generate positive post-game conversation (Doritos in 2011 and 2012).

Beyond Simple Advertising Engagement

The final research question, RQ3, moved beyond simple advertisement engagement to investigate a deeper level of effect, specifically: Do advertisement engagement and positive social-media conversation influence brand engagement?

Although past research had studied social media and advertising, few studies had examined the effects of these two variables in combination on brand engagement. Brand-engaged consumers more likely will talk about and purchase the brand. In the current study, the authors saw that both positive social-media conversation and advertisement engagement had a positive relationship with brand engagement.

Although game-day positive social-media conversation had a stronger effect on post-game social conversation, advertisement engagement had the stronger effect in generating recommendations for the brand. Advertising and on-going social conversations seen by consumers helped to stimulate and maintain conversation about the brand.

The authors, therefore, believe it is possible that brand engagement will influence future social-media conversations and attention to future advertisements. What is clear is that there is an interactive relationship among these factors.

IMPLICATIONS

The findings of the current study affirmed the strategy to leverage the reciprocal relationship existing between television advertising and social-media initiatives. There is increasing importance to understand the interrelationship between media channels. There always has been a sense that what people see and how they react to it in one channel influence how they react to what they see in another channel. Unlike other traditional channels, social media give us the ability to see the consequences of this interaction with much more precision. Specifically:

- Advertising can generate social-media engagement, and these conversations can further enhance the effectiveness of those advertisements. Internet consumer behavior appears to respond to advertising in a consistent manner. There is an initial spike with a rapid decline in response, the long neck as opposed to the long tail (Nail, 2007).

  Consumers live in a complex media environment, however, with many activities competing for a limited amount of attention.

- Although advertisers know consumers will respond, they must get their attention and make it easy for them to respond. This means providing outlets for consumers to act on their trial, seeking to reinforce behavioral impulses by referencing Web sites, blogs, and Twitter.

A small proportion of viewers engaged with Super Bowl advertising via QR codes (See Table 1); few brand advertisers, however, provide this type of outlet (Owyang, 2012). Interestingly, almost one-third of Super Bowl advertisers in 2012 did not include any reference to a Web site or some other on-line outlet.

For those brands that did link to the Internet, almost half (49 percent) only referenced the brand Web site (Owyang, 2012). Mentioning the Web site is a start, but facilitating conversation requires more in this day and age, especially given the short window of opportunity that surrounds the Super Bowl. Some brands have done a good job with this interaction. Doritos has run campaigns for consumer-generated advertisements that directly enhance advertisement engagement; other brands do not. In 2011, Groupon was the "beneficiary" of extended social conversation—but for the wrong reasons after employing questionable humorous references to Tibet in its Super Bowl advertisement.

Why do people talk about advertisements? The research shows that advertisements with better recall and liking more likely will drive people to engage with the brand via other media channels. Although extensive content analysis was beyond the scope of this study, stimulating social-media conversation, similar to classic water-cooler talk, reinforces the importance of quality advertising content. The Super Bowl, generally, tends to attract advertisers who seek to display superior content in their advertisements. Connectedness and "talkability" are important. Relatively speaking, the cost of developing superior content is very inexpensive considering cost of airtime.

Based on their findings, the authors of the current study offered the following takeaways:

- Although content tends to be a relatively difficult measurement subject—and selecting the right context in which to air the advertisement and weight is important—content leads to significant outcome differences and needs to be carefully considered.

  The current study showed that brands stimulating conversation prior to the Super Bowl benefitted with higher levels of advertisement engagement but were not able to extend this conversation for more than about one week prior to game day and a few days after it. Some advertisers have been able to use social media to ambush the consumer interest in Super Bowl advertising without incurring the Super Bowl advertising costs. Brand advertising appears before and after the Super Bowl, when consumers have heightened interest in the advertising, and uses social media to generate buzz. The

Old Spice brand did this in 2010 with its "Smell like a Man, Man" campaign. Papa John's similarly used the time leading up to the Super Bowl to run advertisements encouraging people to sign up for its loyalty club online, with the offer of free pizza if the game went into overtime. During the game, however, Papa John's never bought any advertising time.

• Positive conversation about brands increases engagement with brand advertisements. Brands that had higher levels of positive social conversation had higher levels of recall and were better liked by viewers.

• This engagement had a positive effect on subsequent social conversation. Stimulating this conversation is important as prior research has shown that on-line conversation is positively associated with on- and off-line brand recommendations, and possibly purchase.

FUTURE RESEARCH RECOMMENDATIONS
More research is needed in this area to improve brand advertising performance and better stimulate the types of conversations associated with the Super Bowl in other contexts. The question, "What triggers social-media conversations in less exciting programming environments?" would lead to investigation in advertising executional styles and social conversation. An in-depth examination of advertisement content and the resulting social-media conversation generated would help in this regard.

Another area of investigation would be to look across age groups and genders for differences in social-conversation behavior. For instance,

• Do advertisement executional triggers differ for men versus women?

• Do women and men engage in social-media conversation at the same level and in the same way?

Additional investigation into the psychology of buzz and social-media consumption would provide additional insights:

• Does level of introversion versus extroversion in personality affect people's susceptibility to buzz and how social they are in the media they consume?
• What personality or psychological differences exist between those who might text versus Tweet versus posting comments on Facebook?

Perhaps the most important future research will help to better understand the interconnections between the many media touch points that advertisers now have and how that communication network is best managed to deliver the best possible "total touch" for the brand.

CONCLUSION
The current study's findings reinforce the thinking that brands are not at the mercy of social networks and uncontrolled on-line conversation. Developing strategies to stimulate positive conversation is possible and can extend a brand's advertising spend through enhanced engagement with both the advertising and the brand. This study provides additional evidence validating the interactive relationships between media in the digital environment. Brands must ensure that they better synchronize their traditional and social-media campaigns, and this will require closer coordination than has been past practice.

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APPENDIX

Brand Engagement and Pre-Game, Game-Day, and Post-Game Positive Social-Media Conversation (Correlation Matrix for Variables Included in Regressions)

	Pre-Game-Day Positive Conversation	Game-Day Positive Conversation	Post-Game-Day Positive Conversation	Advertisement Engagement	Brand Engagement
Pre-Game-Day Positive Conversation	1.000 $n = 69$				
Game-Day Positive Conversation	0.726** $n = 69$	1.000 $n = 69$			
Post-Game-Day Positive Conversation	0.715** $n = 69$	0.913** $n = 69$	1.000 $n = 69$		
Advertisement Engagement	0.463** $n = 69$	0.579** $n = 69$	0.520** $n = 69$	1.000 $n = 69$	
Brand Engagement	0.318* $n = 33$	0.643** $n = 33$	0.620** $n = 33$	0.648** $n = 33$	1.000 $n = 33$

**$p < 0.01$; $p < 0.10$

*Game-day positive conversation residual used in reported analysis, yielding zero correlation with Pre-Game-day positive conversation; correlation with Post-Game-day conversation = 0.574**, Advertising Engagement = 0.300**, and Brand Engagement = 0.565**.*