**"A Great Day for Oiled Pelicans:" BP, Twitter, and
the Deep Water Horizon Crisis Response**

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ABSTRACT

On April 20, 2010, British Petroleum (BP) experienced one of the most tragic industrial accidents in history when 11 employees were killed and dozens more injured as the result of an explosion that tore through an offshore drilling rig in the Gulf of Mexico. In the months that followed, BP grappled with the clean-up efforts as millions of gallons of oil spewed into the Gulf of Mexico on the eve of the region's peak tourism season. BP also faced immense reputational damage and needed effective crisis communication to restore this damage with its stakeholders. This study uses content analysis to assess the organization's communication efforts on the social media platform, Twitter, within the framework of the Situational Crisis Communication Theory (SCCT) model.

To more fully understand the role of social media during a major environmental disaster, a total of 1,142 tweets were coded from April 29, 2010, to September 10, 2010, from the account @Oil_Spill_2010 (The name of the account later changed to @Restore_TheGulf and came under the control of the U.S. government.). Within the 1,142 tweets coded during the selected period, there were 1,596 crisis response message strategies found. Consistent with the SCCT, the deal cluster of strategies was most evident in the organization's Twitter messages, comprising 47.87% (ingratiation, n = 433, 27.13% and concern, n = 331, 20.74%) of all coded strategies.

With the proliferation of social media in our society, effective and efficient organizational responses during crises are certain to become more and more dependent on social networking platforms. This study takes an important first step in testing the SCCT model within the framework of social media sites.

KEYWORDS: crisis, communication, public relations, strategy, social media

INTRODUCTON

On April 20, 2010, British Petroleum (BP) experienced one of the most tragic industrial accidents in recent history when the Deep Water Horizon, an offshore oilrig owned by BP, exploded in the Gulf of Mexico. The explosion killed 11 employees and injured dozens more. The crisis continued over the next several months as the damaged well spewed an estimated 840,000 to 1.68 million gallons of oil per day into the Gulf of Mexico (Fox News, 2010). Repeated efforts to stop the leak failed, as did preventative measures to keep the oil from reaching the shorelines of Alabama, Florida, Louisiana, Mississippi, and Texas, just as the region entered its peak tourism season.

Hiebert (2004) contends the Internet transformed the concept of a "global village" by allowing individuals to access information at any time and from anywhere. Thus, it is no surprise that the introduction and immense popularity of social networking sites has organizations scrambling for innovative ways to incorporate their use into strategic communication planning. Facebook, YouTube, and Twitter have gained international popularity, and these platforms provide organizations with unique relationship building opportunities with key publics. Christ (2005) contended that social networking sites would require practitioners to reevaluate how they facilitate communication and thus their strategies for developing and maintaining relationships with target publics. This shift is most apparent

during times of organizational crisis. During crises, social media platforms can provide a controlled means to effectively and efficiently communicate with a large number of stakeholders in a timely manner. This research explores the pivotal role one social networking platform – Twitter – played in BP's handling of the Deep Water Horizon disaster.

Twitter is a nano-blogging platform launched in 2006 that allows users to send short (140-character) messages, called "tweets." For public relations practitioners, Twitter provides the ability to instantly publish organizational information to more than 100 million users (Oreskovic, 2010). Adding an estimated 135,000 new users each day, Twitter estimates that users are posting 230 million tweets per day, representing a 110 percent growth for 2011 (Bosker, 2011). Tweets are received by an individual's or organization's followers, and tweets can also be accessed by anyone using key word searches on Twitter's homepage. The search feature allows crosstalk between users who may not follow one another. In this regard, the content of a tweet is public, interactive, and it enables individuals to share content around similar interests.
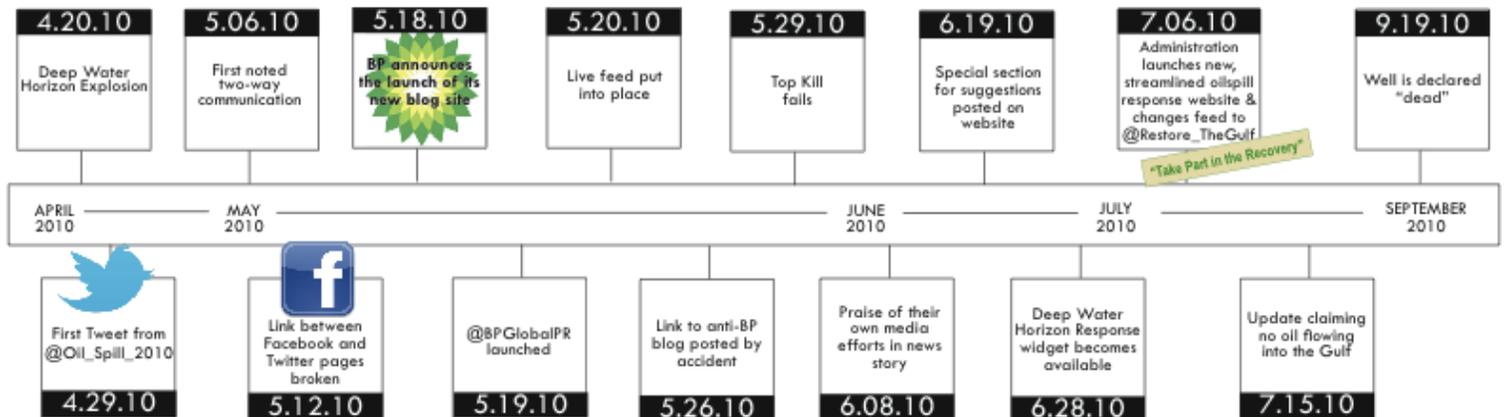
BP had an active Twitter account prior to the accident, but the company was not regularly using the account to communicate with stakeholders. The @BP_America Twitter account was launched January 14, 2010, and only 12 tweets were sent prior to the Deep Water Horizon Crisis. Before the April 20 explosion, BP used Twitter sparingly and strictly as a one-way communication tool to disseminate corporate information. No efforts were made to engage with followers prior to the Deep Water Horizon explosion, but Twitter became a major communication tool within weeks of the accident. Twitter provided unique and powerful communication capabilities, and BP soon began providing regular updates to its followers, including responding to comments and thanking individual users for their feedback (both positive and negative). Video, pictures, and links to non-BP controlled information also became regular features in the company's 140-character messages. BP launched a

secondary Twitter account April 29, 2010, specifically dedicated to its crisis response in the

Gulf (@Oil_Spill_2010).[1]

   The primary goal of this research is to test Coombs' Situational Crisis Communication

Theory (SCCT) model within the framework of this environmental and public relations crisis

by identifying the crisis situation cluster and crisis response strategies used by BP. This

research will utilize content analysis of BP's Twitter messages (tweets) and the tweets' linked

content to identify the crisis communication strategies used by BP after the Deep Water

Horizon explosion by analyzing its corporate messages via its @Oil_Spill_2010 Twitter

account (later renamed @Restore_TheGulf). Due to character limitations (140 characters per

tweet), the directed source material included within a tweet is just as significant to

understanding an organization's message strategy as the tweet itself. Twitter allows an

organization to manipulate the speaker function by tweeting links to third-party information.

Evans et al. (2011) argue messages from one's social network "are more effective than a

message directly from an organization" (p. 4). This is especially significant during a crisis

situation when an organization is likely facing credibility issues but can allow a third-party to

speak on its behalf by directing readers to linked information.

Figure 1: A timeline of events (April 20, 2010 – September 19, 2010)

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[1] While BP eventually utilized multiple social media platforms for its response to the Deep Water Horizon crisis, this study focuses solely on its use of Twitter and only on the @Oil_Spill_2010 account. At the time of this study, access to the full @BP_America account was not available. A request has been made by researchers to the Library of Congress for access to the full library of tweets from @BP_America account.

4.20.10
Deep Water Horizon Explosion

5.06.10
First noted two-way communication

5.18.10
BP announces the launch of its new blog site

5.20.10
Live feed put into place

5.29.10
Top Kill fails

6.19.10
Special section for suggestions posted on website

7.06.10
Administration launches new, streamlined oilspill response website & changes feed to @Restore_TheGulf
"Take Part in the Recovery"

9.19.10
Well is declared "dead"

APRIL 2010 — MAY 2010 — JUNE 2010 — JULY 2010 — SEPTEMBER 2010

First Tweet from @Oil_Spill_2010
4.29.10

Link between Facebook and Twitter pages broken
5.12.10

@BPGlobalPR launched
5.19.10

Link to anti-BP blog posted by accident
5.26.10

Praise of their own media efforts in news story
6.08.10

Deep Water Horizon Response widget becomes available
6.28.10

Update claiming no oil flowing into the Gulf
7.15.10

LITERATURE REVIEW

Crisis Communication

A crisis has been sufficiently defined in the crisis management literature. Fearn-Banks (1996) describes a crisis as "a major occurrence with a potentially negative outcome affecting an organization, company, or industry, as well as its publics, products, services or good name" (p. 1). When facing a crisis, the organization's operations are disrupted, and if the situation is not handled in a timely and effective manner, a crisis can threaten the organization's very existence (Barton, 2001; Coombs, 2002; Seeger, 2002). Crisis management efforts should be understood as the organization's efforts to avoid potential crisis situations, and its efforts to effectively manage crises that do occur (Pearson & Clair, 1998). Fearn-Banks (2001) describes crisis communication as "the verbal, visual, and/or written interaction between the organization and its publics (often through the news media) prior to, during, and after the negative occurrence" (p. 480).

Because of the relative newness of social media platforms, research in this area has only started to explore the use of social media as crisis management tools. Wigley and Fontenot (2009) utilized a content analysis to explore the impact of citizen-generated content during the Virginia Tech shootings. They found that the websites of cable and broadcast

news networks relied more heavily on citizen generated content in the early stages of the

crisis and were also more likely to use non-official technology sources than official sources

such as Web-based news releases and official organizational statements.

Crisis Response Strategies

Over the last two decades, crisis response strategies have been studied

comprehensively in both communication research (e.g., Allen & Caillouet, 1994; Benoit,

1995) and management research (e.g., Bradford & Garrett, 1995; Marcus & Goodman, 1991;

Siomkos & Shrivastava, 1993), and scholars agree that an organization's reputation will be

significantly impacted by its actions (or inactions) and its responses during a crisis (Barton,

2001; Benoit, 1995; Coombs, 1999; Coombs, 2006). Coombs (2006) posits that these crisis

response strategies are the means through which an organization repairs its reputation,

reduces adverse effects, and prevents negative behavioral intentions.

One approach to categorizing crisis response strategies is a defensive-

accommodative continuum (Coombs, 1998). On the defensive end of the continuum, the

response strategies are associated with protecting the organization's image. On the other

end of this continuum (accommodative end), the strategies that address the concerns of the

victims and stakeholders. Coombs' strategies can be ordered as follows, from the most

defensive to the most accommodative: attack the accuser, denial, excuse, justification,

ingratiation, corrective action, and full apology and mortification (Coombs, 1998).

Benoit (1997) suggested three image restoration approaches as crisis communication

strategies: denial, evasion of responsibility, and reducing the offensiveness. Denial strategies

are used to simply deny the responsibility of the company in a crisis or shift the blame;

evasion of responsibility strategies are used to lessen/minimize organization's involvement in

crisis; and reducing the offensiveness strategies are used to repair the organization's image

by lessening the perceived offensiveness of the event (Benoit, 1997). A major drawback of

this model is that it does not offer insight on when and how to use these strategies. It does

not provide clear direction for public relations practitioners on how to correctly choose a strategy during a given crisis.

Coombs (2006) discussed intensifiers, which magnify a company's reputational damage, regardless of the strategies employed by the company. Coombs (2006) identified both crisis history and relationship history as major intensifiers. Crisis history relates to the presence of a similar crisis in the past, whereas relationship history refers to the quality of communication between an organization and its publics. Coombs (2006) and Coombs and Holladay (2001, 2004) stated that intensifiers had a direct effect on an organization's reputation during a crisis.

Situational Crisis Communication Theory (SCCT)

The drawbacks of other crisis communication models and detailed research into the theoretical framework of crisis communication strategies led to the development of the Situational Crisis Communication Theory (SCCT). Now one of the most widely tested theories of crisis communication, Coombs posits the SCCT is comprised of three core elements: (1) the crisis situation (including crisis responsibility); (2) crisis response strategies; and (3) a system for matching the crisis situation and crisis response strategies.

Coombs (2004) argues that the core element, crisis responsibility, or "the degree to which stakeholders attribute responsibility for a crisis to an organization," is a pivotal part of SCCT (p. 268). There are three crisis response clusters in the SCCT model: the victim cluster, the accidental cluster, and the preventable cluster. In the victim cluster, a company is a victim of the crisis, including natural disasters, rumors, workplace violence, and product tampering; in the accidental cluster, the company did not have crisis intentions in its actions, including technical breakdown accidents, recalls, challenges and mega-damage; and in the preventable cluster, a company intentionally places people at risk, takes inappropriate actions, or violates laws/regulations, including human breakdown accidents and recalls, organizational misdeeds with or without injuries, and management misconduct (Coombs,

2006). Two significant factors should be noted in the literature with regard to attributing responsibility for a crisis: message control and source credibility. When an organization uses Twitter to link readers to another site, this is done in as "controlled" a manner as possible, meaning the site content has been deemed beneficial to the organization's cause. It must then be determined whether the diversity of the linked site sources is such that a reader might find the messages credible. These two factors could significantly alter the attribution of responsibility.

The second core element of SCCT identifies the crisis response strategies as deny, diminish, and deal categories. Crisis response strategies are used to repair the reputation, to reduce negative effects and to prevent negative behavioral intentions. More accommodative response strategies, including those that show greater concern for victims, result in the perception of an organization taking greater responsibility for the crisis (Coombs & Holladay, 2004). The deny response option includes multiple strategies: attack the accuser (organization confronts the person or group claiming a fault of the organization), denial (organization denies a crisis), and scapegoat (crisis manager blames the supplier of the crisis) (Coombs, 2006). The diminish response option includes both excuse strategies, in which the organization denies any intent to harm and claims inability to control the events, and justification strategies, in which the organization minimizes perceived damage (Coombs, 2006). The deal response category strategies include: ingratiation, such as when managers praise stakeholders and/or remind publics of the past good work of the organization; concern, such as when managers express concern for the victims; compassion, including when managers offer money and other gifts to victims; regret responses, which express that the organization feels bad about the crisis; and apology responses, in which the organization takes full responsibility for the crisis (Coombs, 2006).

The third core element of SCCT is a system for matching the crisis situation and response strategies. The goal of the theory is to match a company's response strategy to the

nature of the crisis situation, as warranted by the crisis responsibility and reputational damage and dictated by the crisis situation (Coombs, 2006). Thus, response strategies are to be selected according to the perceived acceptance of responsibility for a crisis by an organization (Coombs, 2006).

The SCCT model has been applied in various research studies. Fussell, Collins, and Zoch (2009) tested the theory looking at nonprofit organizational actions during crises. Researchers reviewed the strategies that the American Red Cross employed during major organizational crises between 1997 and 2007. After reviewing 1,585 news articles, they found that the American Red Cross used the theoretically suggested response strategies to match the level of organizational responsibility (Fussell, Collins, & Zoch, 2009). Lee and Lariscy (2008) tested the SCCT model during a food health crisis. An experiment was conducted to test the effectiveness of response strategies in a crisis that fell under the category of the accident cluster. According to the SCCT model, diminish response strategies would be most appropriate. However, contrary to the theory and previous research, the denial response strategies were more successful (Lee & Lariscy, 2008).

While the SCCT model has been used to examine a number of different crises, the SCCT model has yet to be applied to organizational use of social media during environmental crises. The role of social media in managing public relations has recently exploded, yet we are only beginning to learn about how social media are used, in particular during organizational crises. This research seeks to take an important first step in testing the SCCT model within the framework of social media platforms.

METHOD

The following research questions were used to guide the analysis of BP's Twitter response to the Deep Water Horizon explosion:

RQ1: What response strategies did BP utilize following the April 2010 Deep Water

Horizon explosion?

RQ2a: What was BP's dominant, or most frequently used, crisis communication strategy from the SCCT?

RQ2b: What was BP's most frequently used directed speaker?

RQ3a: How did message strategies vary among speakers?

RQ3b: How did message strategies vary over time?

RQ4: How did BP follow the SCCT model in the response strategies selected?

To answer the research questions, a content analysis was selected as an appropriate method. Budd, Thorp, & Donohew (1967) describe content analysis as a systematic technique for analyzing message content and message handling whereby the analyst is not necessarily concerned with the message, but with the larger questions of the processes of effects and communication. For this case study, content analysis allows for an examination of all corporate crisis communication messages to the public via Twitter through the lens of the SCCT model.

A coding sheet was developed based on Coombs' (2006) SCCT crisis response strategies clusters to guide the content analysis. Each communication message (via Twitter post and linked site) was considered a unit of analysis. The crisis began April 29, 2010, with the well explosion, and ended September 19, 2010, when the "death" of the well was announced. All tweets sent from BP's @Oil_Spill_2010 (later changed to @Restore_TheGulf) Twitter account during the crisis were coded for a total of 1,142 tweets. This account was chosen because it was specifically used to address concerns for the incident, and it was used as a channel for information, policy updates, and briefings on coordinated action regarding the oil spill.

Three coders were trained and the coding was divided among them equally. All three coders coded the same ten percent sample after training as a check for intercoder reliability. Overall, intercoder reliability using Holsti's method was .88, ranging within the response

categories from .83-.91. Researchers chose to code both the content message of the tweet itself and the linked website, if a link was provided, because Twitter serves as both a platform to communicate with interested parties and a channel to facilitate interested parties to more detailed information on an external site. Tweets, limited to 140 characters, can be linked to much more extensive and detailed content on these external sites. This provides insight into a company's attempt to direct interested parties to a particular type of news/information content. Many of the @Oil_Spill_2010 tweets coded included a hyperlink to another webpage, an online video, news article, press release, or government report. The content of each tweet and the content on sites linked to the tweet, if present, were coded to capture the complete picture of BP's use of Twitter in its organizational crisis response. The coding sheet allowed for multiple strategies to be coded within a given tweet or linked text content. The linked content is critically important to understanding the full corporate message strategy and gives insight into manipulation of message source and the potential gate keeping role corporate entities may have when directing Twitter followers to additional content. When content was linked via Twitter to other trafficked sites, the entire textual message, or linked video (often in the form of a press conference in this study) was coded using the SCCT model. The linked content from Twitter often became the voice of BP's message strategy and was often the crux of the content coded with the Tweet itself often being little more than a few words and a hyperlink.

BP's tweets during the crisis regularly linked to content from four source categories: news media outlets, social media sites (Facebook, blogs, YouTube, etc.), corporate affiliated/managed websites, and government operated websites. Tweets were coded to indicate the source of linked content, as well as the message category for the content. Thus, while all content was linked from the BP Twitter account, the actual content of the linked message was attributable to the preceding sources. The researchers identified six categories of messages coming from the Twitter directed site sources: press release, press conference,

interview, news story, CEO message, and company stories. For each source and content category, all available outgoing messages were coded (text and video). The speaker on each linked site source was also coded using the following categories: federal government agency, state agency, activist/volunteer, media, those directly affiliated with BP or in charge of the BP Twitter account, the President of the United States, and other (indiscernible speaker).

Coders analyzed each message using the three response clusters and the original ten crisis communication strategies outlined in Coombs' model: (a) deny response cluster (attack strategies, denial strategies, and scapegoat strategies); (b) diminish response cluster (excuse strategies and justification strategies); and (3) deal response cluster (ingratiation strategies, concern strategies, compassion strategies, regret strategies, and apology strategies). During coding, a decision was made to divide the original "justification strategy" from Coombs' model into two separate categories within an expanded diminish cluster. After intercoder tests revealed a clear division of two individual categories within the original justification strategy, a "minimization strategy" was added and defined as: An organization minimizes perceived damage of crisis. The diminish cluster retained the category of justification, defined as: the rationalizing of an organization's actions. The researchers of this study feel the addition adds greater depth of analysis to the current study.

Figure 2 : Situational Crisis Communication Theory (SCCT)

Response Strategy	Characteristic(s)
Denial Cluster	
Attack	Organization confronts the person or group claiming fault of the organization
Denial	Organization denies a crisis exists
Scapegoat	Organization blames the supplier of the crisis on another organization or entity
Diminish Cluster	
Excuse	Organization denies intent to harm and claims inability to control the events
Justification	Organization focuses on rationalizing its actions

Minimization	Organization minimizes perceived damage
Deal Cluster	
Ingratiation	Organization praises stakeholders and/or reminds them of past good work of the organization
Concern	Organization expresses concern for the victims
Compassion	Organization offers money and other gifts to victims
Regret	Organization feels bad about the crisis
Apology	Organization takes full responsibility for the crisis

For each tweet, coders recorded the number or crisis response strategies within the message (rather than a simple 'present' or 'absent' analysis). Thus each message was analyzed for the type of response, as well as the frequency of the use of that response within the message. The number of recorded responses was summed for each individual cluster, creating three scales (deny, diminish, and deal).

Descriptive statistics were used to analyze the data and answer the research questions. Analyses of variance and regression analyses were conducted to present a model of the most significant strategies in BP crisis communication approach to the Gulf Oil Spill. The analyses of variance used a Bonferroni Post Hoc procedure to control for error inflation within those statistically significant results.

RESULTS

RQ 1: What response strategies did BP utilize following the April 2010 Deep Water Horizon explosion?

British Petroleum transmitted a total of 1,142 tweets via Twitter in response to the Deep Horizon/BP Oil Spill from April 29, 2010, to September 19, 2010 via its @Oil_Spill_2010 account. Tweets were initially sent from BP's Twitter account, but eventually a "Unified Command" emerged, which combined BP's efforts with those of U.S. government agencies (such as the EPA and Coast Guard) and representatives and agencies from Gulf

Coast states. There were a total of 133 Twitter posts that linked to photographic content, with no directly discernable message strategy. Those tweets with solely photographic linked content were not analyzed in this study. A total of 179 (15.67%) tweets were direct two-way communication with other Twitter users. A total of 284 (24.86%) tweets indicate British Petroleum was the responsible party through Unified Command.

Within the 1,142 tweets with textual or video linked content there were 1,596 crisis response message strategies coded.

From the denial cluster, the message strategies included the attack strategy (n = 36, 2.26%), used most often between officials and particularly in videoconferences, where attacks on others were easily levied. President Obama also put forth several attacks: "I did not appreciate what I considered to be a ridiculous spectacle during the congressional hearings into this matter. You had executives of BP and Transocean and Halliburton falling over each other to point the finger of blame at somebody else" (@Restrore_TheGulf, 2010, May 14). The scapegoat strategy (n = 17, 1.07%) was also used most frequently by the President and his administration in readily asserting the incompetency of British Petroleum as the crisis supplier from what the administration called a "Breakdown of responsibility from BP and possibly Halliburton" (@Restrore_TheGulf, 2010, May 14). Rather than a denial of the actual crisis, which was impossible, denial strategies (n = 74, 4.64%) centered on the environmental impacts and the safety of seafood. Representatives of British Petroleum denied any harm would come from eating Gulf Coast seafood, with claims such as "FDA and the Gulf states ensure that seafood is safe in the reopened area" (@Restore_TheGulf, 2010, August 8).

Minimization (n = 273, 17.11%) was often used to remind followers that Unified Command was ready, but that the situation was not so bad as to warrant action. "Though there is currently no shoreline impact, Gulf Coast states have been notified and invited to participate in the Area Command Center" (@Restore_TheGulf, 2010, April 29). Minimization

strategies also attempted to lessen the perception of the scope of the oil spill in the Gulf by

reminding readers "the remaining closed area now covers…about 4% of the federal waters in

the Gulf" and that there were not "large quantities of oil around the well" (@Restore_TheGulf,

2010, October 22). Minimization was also used to lessen the reports of relatively large-scale

potential environmental hazards, such as "Only 20,000 gallons of dispersants used deep sea,

so far" (@Restore_TheGulf, 2010, May 18). Justification strategies (n = 209, 13.10%) were

used to explain fishing closures as "precautionary measures" or rationalize the use of

untested measures: "Sub-surface use of dispersants could mitigate the impact of the spill

without increasing the impact on human health and the environment" (@Restore_TheGulf,

2010, May 5). Excuse (n = 82, 5.14%) was used most commonly when weather delays

stagnated cleanup efforts or in attempts to explain the difficulty in assessing things like the

flow rate of oil coming from the well.

From the deal cluster, the message strategies included ingratiation (n = 433, 27.13%),

which often consisted of reminders, such as, "BP announced that it has made $25 million

block grants to each of the states of Louisiana, Alabama, Mississippi and Florida"

(@Restore_TheGulf, 2010, May 6), as well as praising the efforts of British Petroleum

workers and reminding audiences of the experienced credentials of all the scientist and

government officials involved. Concern (n = 331, 20.74%), not surprisingly, was a huge

component of BP's strategy. Most often the mention of concern was for the affected

fisherman and Gulf Coast business owners, almost always followed with some kind of

reassurance. Compassion (n = 129, 8.08%) was used almost exclusively to mention the

amount of money paid to those filing claims, noting British Petroleum would "compensate for

the loss of income or net profit due to the cleanup of the Deepwater Horizon oil spill"

(@Restore_TheGulf, 2010, June 4). Regret (n = 8, .50%) and apology (n = 4, .25%) were

extremely rare, but were most often used by the Presidential administration to give the public

confidence that the government was actively involved in the cleanup process and also

provide an entity to be held accountable to the promises of complete restoration.

RQ 2a: What was BP's dominant, or most frequently used, crisis communication strategy from the SCCT?

The majority of the message strategies in BP/Unified Command's tweets came from

the deal cluster (n = 905, 56.70%), followed by the diminish cluster (n = 564, 35.34%), and

the deny cluster (n = 127, 7.96%).

Table 1 : BP's use of Twitter within the SCCT framework

N = 1,142 tweets		Message Strategies	Percentage (%)
Diminish Cluster	Justification	209	13.10
	Minimization	273	17.11
	Excuse	82	5.14
Deal Cluster	Ingratiation	433	27.13
	Concern	331	20.74
	Compassion	129	8.08
	Regret	8	.50
	Apology	4	.25
Deny Cluster	Scapegoat	17	1.07
	Attack	36	2.26
	Denial	74	4.64
	Total	**1,596**	

RQ 2b: What was BP's most frequently used directed speaker?

Representatives from the federal government were used most frequently in the tweets

from the BP/Unified command Twitter account (n = 576, 50.44%), followed by those directly

affiliated with BP or in charge of the BP Twitter account (n = 530, 46.41%), media (n = 15, 1.31%), state officials (n = 12, 1.05%), other unidentifiable speakers (n = 4, .35%), the President (n = 3, .26%), and activists/volunteers (n = 2, .18%).

RQ 3a: How did message strategies vary among speakers?

Cluster Differences

An analysis of variance was used to examine mean differences between speakers in their use of message strategy clusters; significance was set at the .05 level. Clusters were examined, rather than individual message strategies alone, because the aggregation of strategies within one message allows for better comparison of those groups of speakers with lower numbers. Still, it is notable that some of the distinctions may be attributable to lower numbers. However, it is important to analyze because BP and Unified Command chose to represent their message strategy during the crisis with these speakers.

For the deny cluster, the ANOVA revealed significant differences between groups (F = 10.26, df = 6, p < .05). The President (m = 1.3, std = .57) and activists/volunteers (m = 1, std = 1.4) had the highest average mean scores. A Bonferroni Post Hoc analysis of the ANOVA revealed the President's mean to be significantly higher than every other category of speaker, with the exception of the activists/volunteers. The activists/ volunteers had a significantly higher mean than every category of speaker besides that of the President and state officials.

State officials had the third highest mean score for deny cluster strategies (m = .25, std = .62), followed by media (m = .20, std = .56), federal government (m = .13, std = .38), and those directly affiliated with BP or in charge of the BP Twitter account (m =.07, std = .28). Those falling in the category of "other" did not use deny cluster strategies.

For the diminish cluster the ANOVA revealed significant differences between groups (F = 10.26, df = 6, p < .05). Those directly affiliated with BP or in charge of the BP Twitter account had the lowest mean score (m = .24, std = .52). A Bonferroni Post Hoc analysis of

the ANOVA revealed these scores to be significantly lower than those of the federal

government (m = .70, std = .88), the media (m = .86, std = 1.12), and other (m = 1.5, std =

.57).

No other significant differences were discovered between any of the other groups

based on the statistical analyses: state officials (m =.25, std = .62), activists (m = 1.5, std

=.70), and the President (m = 1, std =1). Of note, though the mean scores for some of the

listed groups were very high by comparison to other groups, the small number of cases

demanded much higher mean scores to be considered significant.

For the deal cluster, the ANOVA revealed significant differences between groups

(F = 45.46, df = 6, p < .05). The President (m = 3.66, std = .58) and activists/volunteers (m =

2.5, std = 2.1) had the highest average mean scores. A Bonferroni Post Hoc analysis of the

ANOVA revealed the President's mean to be significantly higher than every other category of

speaker, with the exception of the activists/volunteers. The activists/volunteers had a

significantly higher mean than those directly affiliated with BP or in charge of the BP Twitter

account (m = .36, std = .57).

The deal cluster again showed the two groups with the largest number of cases

(federal government and those directly affiliated with BP or in charge of the BP Twitter

account) had significant differences between one another. Federal government (m = 1.13, std

= .99) had far fewer uses of deal cluster strategies than did BP or those in charge of the BP

Twitter account (m = .36, std = .57). No other significant differences were discovered

between any of the other groups based on the statistical analyses: state officials (m = 1, std =

.73), media (m = 1, std = .84), or other (m = .75, std = .50).

Research Question 3b: How did message strategies vary over time?

For the analyses designed to identify changes over time, a timeline of the crisis was

divided into 10 periods (P1-P10), with P1-P9 being 15 days each, and P10 lasting 7 days.

The ten-day period was chosen as a matter of convenience within the crisis, as recognition of

the perceived level of the crisis by BP was impossible. The 15-day windows allowed a way to analyze changes in strategy and shifts every two-weeks. In the first 15 days of the crisis, 180 tweets were posted. In the second 15 days, 464 tweets were posted, followed by 125 tweets in the third, 59 in the fourth, 76 in the fifth, 95 in the sixth, 43 in the seventh, 45 in the eighth, 45 in the ninth, and ten tweets were posted in the final period. From the highest 15-day period of (P2) to the last full 15-day period of P9, there was over a 90% decrease in the number of tweets posted. The average number of tweets per day jumped from 12 per day in P1 to over 30 per day in P2, as the crisis was beginning and the demand for a response from BP was at its zenith. As the situation stabilized and the possibility for a quick solution evaporated, the average number of tweets per day steadily declined, and eventually dropped to an average of three tweets per day by P9. Overall, after an initial explosion of tweets through the first three periods, the data indicate a steady and precipitous trend of reduction.

Linear regression analyses were conducted. The dependent variable was the number of message strategies within each posted tweet, from each response cluster, and the independent variable was time measured in 15-day increments.

For the deny cluster, the regression showed time to be a significant predictor of number of messages within each posted tweet: $R^2 = .006$, $F = 6.55$, $b = .076$, $p < .05$. The same was true for the diminish cluster, $R^2 = .006$, $F = 7.20$, $b = .079$, $p < .05$ and the deal cluster, $R^2 = .059$, $F = 71.25$, $b = .24$, $p < .05$. Thus, for all types of message strategies, as time went on, an increasing amount of strategies were used within each tweet. Thus while the number of tweets declined over time, the number of message strategies employed within each tweet increased.

Analyses of variance were conducted using each 15-day interval as an independent grouping variable and the mean number of message strategies by response cluster as a dependent variable. For the denial cluster, no significant differences were found between any of the groups ($F = 1.79$, $df = 9$, $p = .06$). The overall mean number of denial cluster strategies

was M = .11, std = .35. The largest deviations from that mean came in P9 (m = .26, std = .53) and P6 (m = .07, std = .26). Thus, use of denial cluster strategies was relatively consistent throughout.

For the diminish cluster, significant differences were found between the groups (F = 3.32, df = 9, p < .05). There was only one occasion where the 15-day interval had a significant mean differences in the mean number of diminish cluster message strategies used from another interval: the fourth (m = .79, std = .86) and the second (m = .39, std = .72). Thus, use of diminish cluster strategies was relatively consistent throughout.

For the deal cluster, significant differences were found between the groups (F = 13.80, df = 9, p < .05). A Post Hoc analysis revealed large difference between multiple 15-day intervals. The second 15-day interval (m = .54, std = .76) had a significantly lower mean number of deal cluster message strategies than all other 15-day intervals, with the exception of the first interval (m = .66, std = .74) and the sixth interval (m = .76, std = 1.01). Similarly, the first 15-day interval had a significantly lower mean number of deal cluster message strategies than the fourth interval (m = 1.15, std = 1.09), the fifth (m = 1.19, std = 1.00), seventh (m = 1.55, std = 1.01), and eighth (m = 1.26, std = 1.01). These results highlight a trend of increased usage of deal cluster message strategies as the crisis wore on. The average mean score for deal strategy message strategies from the first 15-day interval (m = .66, std = .74) to the second (m = .54, std = .76), third (m = .91, std = 1.01), fourth (m = 1.15, std = 1.09), fifth (m = 1.19, std = 1.00), sixth (m = .76, std = 1.01), seventh (m = 1.55, std = 1.01), eighth (m = 1.26, std = 1.01), ninth (m = 1.06, std = .91) to the final seven-day period (m = 1.4, std = .84) showed a generally consistent upward climb, with the exception of the sixth interval.

Table 2 : BP's Tweets over time

Days	Number of Tweets

1 – 15	180
16 – 30	464
31 – 45	125
46 – 60	59
61 – 75	76
76 – 90	95
91 – 105	43
106 – 120	45
121 – 135	45
136 – 142	10
Total Tweets	**1,142**

Descriptive mean scores for the number of two-way communications (operationalized

as when the company directly responded to a question posed on Twitter by another Twitter

user) in the 15-day intervals reveal an upward trend across the first three periods, a steady

decline across the next 3 periods, and a termination of all two-way communications from P7

until the end of the crisis. The first 15-day interval had a low mean (m = .03, std = .19), which

increased in the second interval (m = .25, std = .43), held steady in the third (m = .25, std =

.44), then began a decline in the fourth (m = .18, std = .39), the fifth (m = .05, std = .22), a

slight rise in the sixth (m = .09, std = .29), followed by a termination of all two-way

communications from the seventh interval through to the end of the crisis (m = 0, std = 0.00).

This is notable as two-way communication is often seen as one of the most important

practices in public relations strategy (Grunig, 1992; Grunig, Grunig, & Dozier, 2002).

 RQ 4: How did BP follow the SCCT model in the response strategies selected?

The decision of cluster usage is dependent upon the type of crisis at hand, and the

SCCT model recommends differing strategies for differing types of crises and the types of

responsibility attribution. In the case of the Deep Water Horizon/BP oil spill, it was unclear

(especially early in the crisis) whether a mechanical failure (an accidental crisis with low

attribution of responsibility) or human negligence (a preventable crisis with high attribution of responsibility) caused the accident. A preventable cluster is comprised of types of crises that suggest strong attributions of crisis responsibility to the company and severe reputational threat. The SCCT model suggests crises in the preventable cluster should use response strategies from diminish and deal clusters. Because the deal cluster (n = 905, 56.70%), followed by the diminish cluster (n = 564, 35.34%) represented over 92% of the total message strategies used, it is seems, whether intentionally or not, BP responded to the crisis as though it could have been prevented.

DISCUSSION

The message strategies used by BP during the Deep Water Horizon oil crisis were consistent throughout the time period analyzed for this study. Ingratiation, concern, minimization, and justification were the dominant strategies evident in the organization's Twitter response. Had the researchers not chosen to include the minimization category, justification would have been coded as the dominant strategy. By including this category, however, the data makes clear that BP's efforts to minimize the impact and the scope of the disaster were used in concert with attempts to highlight BP's energetic response to the crisis and BP's efforts in the clean-up process (coded as ingratiation in 27.13% of tweets, n = 1,596). The SCCT model separates crises into three categories: 1) minimal responsibility (crisis due to natural disaster), 2) low responsibility (accidental crisis), and 3) strong responsibility (preventable crisis) (Coombs, 2007). As suggested by the SCCT model, when an organization is at fault, or stakeholders perceive it to be at fault, the organization utilizes the deal cluster to communicate its efforts to make the situation right as well as to protect the organization's reputation. The Deepwater Horizon disaster can be characterized as a preventable crisis; thus, the results from this study support the SCCT model's prediction that BP would respond predominately with deal cluster strategies.

Also significant in the findings in the study was the steady decline in the number of tweets per day throughout the period analyzed, while the number of strategies used within the tweets actually increased. BP's initial tweets indicate its early Twitter strategy was largely reactive, and even haphazard, as the organization tried various communication channels to distribute information quickly to its key stakeholders. Based on the number of tweets in the initial weeks after the explosion, the organization appears to be focused on flooding the "Twitterverse" with information related to the disaster. However, three weeks after the explosion, BP severed the link between its Facebook and Twitter accounts, marking a significant shift in both message strategy and its use of available communication channels.

Nearly one month after the explosion, the most significant adjustment in BP's message strategy with Twitter accompanied the launch of its new blog. According to tweets sent by BP, the company wanted to encourage stakeholders to use the new blog as the platform for lodging complaints about the disaster, rather than having Twitter followers tweeting directly to BP's Twitter handle. This marked a significant drop in two-way communication between BP and its Twitter followers. In July, the U.S. government took control of the Twitter account and the name changed to @Restore_TheGulf. There was no further two-way communication recorded in tweets after this point. It is unclear from available tweets and other sources why this shift in control occurred. Further, it is unclear from the blog whether individuals made the shift from Twitter to the blog to register their complaints, rather than continuing to utilize the Twitter account.

Because of this shift in control of the account, it was not surprising that 50.44% of the tweets were coded as utilizing the federal government as the primary speaker followed by 46.41% from BP or its representatives. What is striking from the results of the speaker analysis is the exclusion of information shared from the account that featured President Obama or activists as the primary speakers. President Obama was highly critical of BP's

response, as were environmental activist. Thus, the total number of tweets coded with these parties as the primary speakers comprised less that 1% of the tweets coded.

While much of BP'S use of Twitter was seemingly reactive and chaotic and revealed dramatic changes throughout, the sheer gravity of the crisis facing the company combined with the relatively recent emergence of social media as an integral component in crisis management likely contributed to the chaos. BP also faced a number of intensifiers, including comparisons to the Exxon *Valdez* spill, more environmentally sensitive publics (due to political prominence of the global warming debate), and the recent failures of the U.S. government in disaster response in the same region during Hurricane Katrina. These intensifiers revealed themselves through differing channels and at different points throughout the crisis. There is some probability that these intensifiers influenced shifts in strategy, communication with Twitter followers, message source selection, and other communication decisions. Finally, one might speculate that senior officials and those with experience in the industry anticipated the longevity of the crisis. It was no accident that the work on the relief wells began almost immediately after the spill began. Early in the crisis, BP estimated that it could be six months before the spill might be controlled and with that in mind, BP's crisis management strategy in the Deep Water Horizon accident may be viewed as weathering the initial attack of an enduing event. The ever-shifting directions BP took in the initials may be best understood as attempts to placate the general public for as long as possible and to prevent the appearance of corporate complacency, but may have also allowed BP officials time to develop a more strategic message platform from which to proceed in the as the crisis dragged on.

Limitations and Future Research

Several limitations exist within this study. First and foremost, the directed links for some tweets were to an original website specifically for the crisis that has since been

converted to a post-crisis website. Though all of the tweets were preserved, some data were unrecoverable. Thus contextual factors from the original post (such as embedded advertisements, product mention, recruitment tools, pop-ups, etc…) were altogether lost. The managed websites for BP and Unified Command also changed hands throughout the crisis and underwent multiple renovations. While those changes are reflected in the data, BP and the U.S. government did not explain those decisions regarding the account.

With the proliferation of social media in our society, organizational responses during crises are certain to become more and more dependent on social networking platforms. BP's corporate Twitter account (@BP_America) would also offer significant insight into its response to the Deep Water Horizon crisis, and future research could reveal similarities or differences between the message strategies used in the two accounts. Future research should also compare BP's use of Twitter during this environmental disaster with other organizations' responses during crises of similar magnitude in scale, duration, and consequence. Additionally, future research should seek to compare these findings with analyses of news coverage of the event and public opinion surveys of current perceptions of the company. Those studies would help us understand how news coverage, the crisis response strategy, the duration of a crisis, and attribution intensifiers from a specific industry work together in shaping public acceptance of, and reputation restoration for, a company during and after a crisis

Acknowledgements

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