

Matthew versus The State of Louisiana: News Coverage of Flood Events in 2016 within the Context of Hurricane Katrina

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Abstract

In 2016, two major flood events made national news: one affecting the East Coast of the United States, and the other affecting Louisiana. At issue is whether the news coverage was equivalent at the national versus regional or local level for both events. This study examines the news and social media coverage of both events. More specifically, news items related to the events will be collected and analyzed for both number and nature of representations. Items will be coded for valence regarding the severity of the event, the timeliness of the reporting of the event, the human-interest aspects of the event, and the descriptions of the individuals involved. Also examined will be the valence of the commentary about the events in non-traditional, social media outlets. Analysis of news items will be conducted according to the precepts of Agenda Setting Theory and Framing Theory. Additional analysis will examine how these two events compared to the events surrounding Hurricane Katrina.

Keywords: News, Social Media, Crisis, Climate, Hurricanes

1. Introduction

On August 12, 2016, extreme flooding commenced over portions of South Louisiana due to a slow-moving storm system. As a South Louisiana native who grew up in the Baton Rouge area, the first author experienced both hurricanes and river floods which have devastated the area. His earliest memory of a hurricane was Hurricane Edith (September 16, 1971). He also personally recalls spring river floods in Baton Rouge in 1977, 1979, 1980, and 1983. Major storms mark time as many individuals along the Gulf Coast retell stories based on “the flood of” or “Hurricane...”

To put into perspective, from 1964 through 2016, there have been 49 named storms that have had an impact on Louisiana either through a direct hit or glancing blow resulting in major rain events (TheCajuns.com, 2017). Of those 49 named storms, 21 were hurricanes with a direct hit to Louisiana. Another seven hurricanes produced damaging rain to Louisiana through close passes and arriving close to the border of Louisiana into Mississippi or Texas. During that same time period, 27 major floods hit the Amite River basin east of Baton Rouge with river crests at or above 32 feet (Weather.gov, 2016). Of those floods, the average river crest has been 35.78 feet (sd = 3.38). During the Louisiana Flood of 2016, the Amite River crested at 46.20 feet, nearly 5 feet higher than the all-time record flood of April 1983 (41.50 feet).

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Interestingly, only four of the Amite River flood events were associated with hurricanes (Hilda, 1964; Juan, 1985; Tropical Storm Allison, 2001; and Gustav, 2008). However, none of those Amite River floods associated with hurricanes reached the top four flood events by river crest. Of those four events, flooding of the Amite River due to TS Allison reached a stage of 38.34 feet, still within one standard deviation of the average.

TS Allison associated Amite River flooding ranked number 5 in stage height among the river floods between 1964 and 2017. Excepting the Flood of 2016, the next top three Amite River floods occurred due to non-tropical Spring-time rain events. The damage due to the "No Name" storm resulting in the flooding of homes and businesses throughout South Louisiana has been estimated to be in the range of \$10 to \$15 Billion dollars (Aon Benfield, 2017). Twenty parishes (counties) in Louisiana were declared federal disaster areas (Louisiana.gov, 2016). By September 2, 2016 that number had increased to 26 parishes (FEMA.gov, 2016b). In Livingston Parish alone, an estimated 86.6 percent of homes were flooded (Gallo & Russell, 2016). According to the U.S. Census, the population of Livingston parish in 2016 was estimated to be 140,138, with an average household size of 2.76 persons (2010 figures, Census.gov, 2017). Based on those numbers, approximately 121,360 people were made homeless by the storm in Livingston Parish.

The "No Name" storm of August 2016 broke all previous records for rain events in the area. The single day rainfall total averaged for all of Livingston Parish for August 13, 2016 was 12.75" (WeatherDB.com, 2017). On the previous day, the single day rainfall total was 11.05". The previous record of 9.47" was reached on August 30, 2012 (associated with Hurricane Isaac). However, that rainfall record was reached with only one day of rain. The highest rainfall total for a single location in Livingston Parish (the Town of Watson) over a 72-hour period during the flood event was 31.39" (National Centers for Environmental Prediction, 2016a). That three-day rainfall total is over half of the annual rainfall average for the area (U.S. Climate Data, 2017). According to Toohey (2016), 2016 was the rainiest year on record, despite the fact that Fall and early Winter rainfall totals placed the Baton Rouge area in drought conditions. Comparing rainfall "events," the Hurricane Isaac parish-wide rainfall average was 14.34" inches less than the two-day total of 23.81" for the Louisiana Flood of 2016. An estimated 7.1 trillion gallons of water fell in the form of rain with this flood event (Samenow, 2016). By comparison, the estimated total amount of rainfall in Louisiana from Hurricane Katrina was 2.28 trillion gallons, and from Hurricane Isaac was 5.31 trillion gallons.

On October 8, 2016, Matthew made landfall southeast of McClellanville, South Carolina (Weather.com, 2016). The highest rainfall total in the U.S. from Hurricane Matthew was 17.49" in Savannah, Georgia (National Centers for Environmental Prediction, 2016b). However, the rain from Hurricane Matthew was widespread affecting Florida, Georgia, South Carolina, North Carolina, Virginia, West Virginia, Maryland and Delaware (Plumer, 2016). Using the same source of rainfall prediction as in the Samenow article (Ryan Maue of WeatherBell Analytics), Plumer states that an estimated 14 trillion gallons fell in the Southeast U.S. as a result of Hurricane Matthew. According to Plumer, hardest hit was the state of North Carolina. In North Carolina, the highest rainfall total of 15.65" was recorded at William O Huske Lock (NCEP, 2016b). Federal disaster was declared for 120 counties across five states due to Hurricane Matthew: Florida (18 counties), Georgia (20 counties), South Carolina (26 counties), North Carolina (49 counties), and Virginia (7 counties), (FEMA.gov, 2016a). The damage due to Hurricane Matthew has been estimated to be \$15 Billion dollars (Aon Benfield, 2017).

Natural disasters, particularly spectacular ones with human costs, receive media attention. Indeed, the media paid close attention to Hurricane Katrina in 2005. However, according to Barnes and colleagues (2008), traditional media sources such as newspapers focused on government response stories and de-emphasized individual and community response stories. Whether these tendencies toward the framing of natural disasters post-Katrina is open to review. During 2016, both the Louisiana Flood of 2016 and Hurricane Matthew received significant media attention. This coverage of extreme weather events occurred despite an expected focus on the U.S. Presidential campaign. The aim of this study is to determine if media coverage of these two events were equivalent in valence, framing, and focus. Specifically, the study aims to uncover how each of these events were framed in both traditional and social media outlets. These weather events of 2016 are examined within the context of post-Katrina media coverage.

2. Review of Literature

2.1 Media Framing and Natural Disasters

Traditional media historically have reported on natural disasters and catastrophes, with an increase in reporting in the years following 2000 (Lowrey, et al., 2007).

Many studies examined the media portrayal of Hurricane Katrina (see Barnes, et al., 2008; Haider-Markel, Delehanty, & Beverlin, 2007; Maestas, Atkeson, Croom & Bryant, 2008; Robinson, 2009a; Robinson, 2009b; and Tierney, Bevc, & Kuligowski, 2016). In 2015, Potts, Bednarek, and Caple proposed the use of computer-based systems to analyze a "36-million word corpus of news reporting on Hurricane Katrina in the United States" (p. 149). In doing so, Potts and colleagues alluded to the sheer amount of media coverage that Hurricane Katrina received.

Many of these peer-reviewed studies of media reporting of Hurricane Katrina focused on how the media "framed" the story. Indeed, Tierney and colleagues (2016) demonstrated how media framing increased public perceptions of "bad behavior" of Hurricane Katrina victims.

Framing refers to how and what elements of a story are presented. Altheide (1974) proposed that news organizations oversimplify events through the choices of stories and story elements. Relatedly, Shaw and McCombs (1977) proposed that news organizations shape public opinion about events. They proposed that mass media sets the agenda for public discourse through selection. Specifically, first-level agenda setting occurs when mass media selects events to report, thus influencing audiences in what to think about (Shaw & McCombs, 1977; cited in Littlejohn, 1992). "Media can report only a tiny fraction of everything that happens in a day" (MacGregor, Driscoll, & McDowell, 2010, p. 227). But even when reporting on an event, reporters have to select elements to describe. Second-level agenda setting occurs when media "frames" an event in reporting thus influencing audiences in how to think about the issues. According to Straubhaar and LaRose (2008), framing occurs when reporters choose what elements to include in a story, and what elements to exclude. In this sense, framing is a form of second-level agenda setting.

According to Fairhurst and Sarr (1996), framing techniques may include the use of: a) metaphors, b) artifacts (including visual images), c) catchphrases, and d) spin. Headlines, for these purposes, may serve to frame the story through three of these four techniques, excluding visual images. Spin involves presenting the story in such a way as to imply a value judgement or valence. Scheufele (2000) argues that media frames "serve as working routines for journalists, allowing them to quickly identify and classify information" (p. 306). In this way, journalists intentionally or unintentionally may introduce personal bias into the selection of story elements. Such bias may imply value judgements.

Goffman (1974) first suggested that events may be framed as natural or social. For example, in Barnes and colleagues (2008), researchers found that most Hurricane Katrina stories were framed as a social disaster by emphasizing governmental response. They noted that fewer articles addressed individual and community preparedness and responsibility. Indeed, Maestas and colleagues (2008) discovered that much media attention was paid to the shifting of blame for inadequate response to the disaster between various governmental entities. Haider-Markel, Delehanty, & Beverlin (2007) found that a consequence of such media framing influenced public opinion of the effectiveness of governmental response to the flooding of New Orleans following Hurricane Katrina, especially among members of the African-American community who were disproportionately affected by the disaster. Relatedly, Tierney, Bevc, and Kuligowski (2016) examined media portrayals of Hurricane Katrina disaster victims and noted that the media emphasized the lawlessness of survivors in New Orleans. Thus, media portrayals of Hurricane Katrina were "spun" as negative evaluations of victims.

Using Goffman's distinction, as described above, Hurricane Katrina may be divided into two events: a) a natural disaster of a landfall impact associated with the hurricane itself, and b) a social disaster of the "human" caused flooding of New Orleans. Utilizing the Hurricane Katrina example, did the traditional mass media frame the Louisiana Flood of 2016 and Hurricane Matthew as natural or social disasters?

RQ1 Did traditional media outlets frame the disasters of the Louisiana Flood of 2016 and Hurricane Matthew equivalently in terms of valence and characterization as natural or social disaster?

RQ2 Did traditional media outlets frame the disasters of the Louisiana Flood of 2016 and Hurricane Matthew equivalently in terms of focus on event description versus human interests?

2.2 De-framing and the "Anti"-establishment of Social Media

Media portrayals of disasters, such as Hurricane Katrina, in the new media age are distributed through broadcast, print, and Internet channels. Indeed, many of the traditional broadcast and print channels have migrated to the Internet and/or created parallel distribution through the Internet. However, the new media channel is not restricted to established media organizations.

In many ways, the development of the world-wide-web has democratized the way news stories are distributed. Robinson (2009a) described how the parallel channels of a major newspaper, the New Orleans' Times-Picayune, and its web partner, NOLA.com, transformed the story-telling of Hurricane Katrina and its aftermath. Robinson found that in the space created by the WWW, citizens joined the news organization in the shaping and re-shaping of the story.

These stories by citizens told the personal experiences of survivors that were largely missing in the mainstream media. Robinson (2009b) also found that citizen story-tellers often undermined the mainstream news story by framing other aspects of the story, such as human-interest aspects, that were largely ignored by mainstream media. As LeBlanc & Goldsmith (2006) described, native Louisianans understand and can explain the social, historical, and geographical contexts of disasters affecting Louisiana more effectively than well-intentioned but ill-informed outside observers, including mainstream media journalists.

McCosker (2013) has labeled the process of re-telling the story through social media as de-framing. McCosker found that social media plays an important role of providing an outlet for revealing the rawness of personal experience related to disasters. Ostertag and Ortiz (2015) found that citizens used social media to organize civic actions following Hurricane Katrina. Recently, in Louisiana, social media, such as Facebook, were used to conduct rescues by citizens and neighbors, known locally as the "Cajun Navy" (Morris, 2016).

RQ3 Did social media posters frame the disasters of the Louisiana Flood of 2016 and Hurricane Matthew equivalently in terms of valence?

RQ4 Did social media posters frame the disasters of the Louisiana Flood of 2016 and Hurricane Matthew equivalently in terms of focus on reporting versus other purposes?

3. Method

3.1 Traditional Media

To answer the research questions, two distinct methods of data collection were employed: one for traditional media and another for social media. For traditional media, an Internet search using the Google search engine was employed for a one week time period ending March 2, 2017 using two search terms: a) "Louisiana Flood 2016," and b) "Hurricane Matthew." The sampling frame restricted results to online articles presented as news from commercial websites, including the websites associated with major national and international news organizations (print and broadcast), as well as local news organizations. In total, 142 distinct news articles associated with the two events were collected for the study. The publication date range of articles related to the Louisiana Flood of 2016 was August 12, 2016 through February 13, 2017. The publication date range of articles related to Hurricane Matthew was September 28, 2016 through November 1, 2016.

Of these 142 online news articles, 43 were associated with the Louisiana Flood of 2016 and 99 were associated with Hurricane Matthew. The collection of news articles for the Louisiana Flood of 2016 exhausted the sampling frame. However, the researcher stopped the collection of news articles related to Hurricane Matthew at 100. The sources of news were divided into eight categories: a) International News, b) National News, c) Local News, d) News magazines, e) Science sites or magazines, f) weather-related sites, g) official U.S. Government sites, and h) other. Of the news articles collected for the Louisiana Flood of 2016, 9.3% were from international news sources, 20.9% were from national sources, 18.6% were from local news sources, and 51.2% were from non-News specific sites. Of the news articles collected for Hurricane Matthew, 6.1% were from international news sources, 22.2% were from national sources, 42.4% were from local news sources, and 29.3% were from non-News specific sites. Chi-Square tests revealed a statistically significant difference for news sources of articles by event, $\chi^2(3) = 9.29$, $p = .026$, $\phi = .26$. The wide distribution of the effects of Hurricane Matthew may account for the much larger percentage of local news coverage.

3.2 Social Media

For social media, the purpose of gathering the most recent 100 text entries of each event was to provide insight into current thinking or exposure to key messages in the wake of these two disasters. This data gathering technique is a type convenience poll, or intercept interview, that provides a snapshot of public opinion and attitudes from available parties willing to share with the interviewer. In this case, text-based posts are displayed by people who are willing to share their thoughts and information publicly.

Starting from February 27, 2017 (the date information was gathered) and working backwards in descending order, 100 text entries each were recorded from original posts in Twitter and Facebook. "Replies" to the original posts were not recorded. Re-posts or "shares" were not recorded to save space and are indicated by the "+" symbol and a numerical value for the amount of repeat posts. It was not possible to consistently update the list for every new entry, and end dates for entries will differ between sites.

The parameter defined by the researchers was the first 100 entries for each search query ("Louisiana Flood 2016" / "Hurricane Matthew") from each of the top three social networking sites as recognized by their traffic ranking in the United States, with YouTube appearing second on the list of three traffic ranking sites.

Social Media website choices for this study are based on their traffic ranking in the United States, with the top three being Facebook, YouTube, and Twitter. eBizMBA.com is an online resource focusing on marketing and analytics for businesses that operate primarily online. Their Top 15 Social Media Sites list is averaged from other sources that continuously rank website traffic, and is updated monthly. To verify the accuracy of eBizMBA's January 2017 list, ranks were compared to Alexa (2017, February) and Quantcast (2017, February), which are openly listed as their sources.

While YouTube is traditionally not classified as a social media website, the growth of commenting on videos and interaction through personal videos has transformed the site into a tool for social interaction. It was initially included in the list of the top three chosen sites because of its close proximity in number of subscribers to Facebook. However, once a methodology was chosen for how to gather text samples for this study, YouTube could not be used for the following reasons. The "original post", which then gets shared or responded to, is in video format, not text, so there was no comparable means of collecting an original post other than a video title, the content contributor's description of the video, or a transcript of closed captions, if provided. The fields for comments are mostly populated with responses and counter-responses from viewers, rarely from the original content contributor.

Other social media sites, such as LinkedIn, Google+, Instagram, and Reddit, although not nearly as popular, had similar format issues that did not align with the data gathering parameters of this study. Restrictions on data availability and a desire for uniformity in collecting said data have narrowed the choices to Facebook and Twitter, with no third option included. In total, 398 social media posts associated with the two events were collected for the study. Of these 398 social media posts, 198 were associated with the Louisiana Flood of 2016 (98 on Facebook and 100 on Twitter) and 200 were associated with Hurricane Matthew (100 each on Facebook and Twitter).

3.3 Variables

Textual data was reviewed for valence, characterization as natural or social disaster, and primary focus on event description or human interest aspects of the story. For valence, articles were distinguished by primarily positive, neutral or negative value bias by the article author (journalist). The valence variable is similar to the "tone" variable utilized by Barnes and colleagues (2008). In their study, an article was coded as negative "if it was critical of those to whom responsibility was attributed" (p. 605). Thus "value bias" was coded based on the degree of praise or criticism of individuals reported on in the story. According to Scheufele (1999), articles might be framed either from the perspective of the journalist or the audience or the story. While the journalists may have included quotes from witnesses, the focus of the current study is on the valence of the article as a whole as presented by the journalist.

For frame, articles were distinguished as incorporating primarily descriptions of natural phenomena, social phenomena, or a mixture of the two types of elements. For focus, articles were distinguished as primarily focusing on describing the natural or social consequences of the weather events, or on the stories about the lives of victims of the events. Upon review of the articles, two additional variables were observed: a) descriptions of links to climate change within the article, and b) the locality of the resulting flood to the source of the article. In order to more directly compare the Louisiana Flood of August 12, 2016 to Hurricane Matthew, locality of the source of the article for Hurricane Matthew distinguished articles between those that reported on Hurricane Matthew related events in general and those that reported on the flooding associated with the hurricane post landfall in South Carolina on October 8, 2017.

4. Results

4.1 Traditional Media

To answer Research Question 1, articles written about the Louisiana Flood of 2016 were compared to articles written about Hurricane Matthew in terms of valence and framing. Chi-square test revealed a statistically significant difference between the two events in terms of valence, $\chi^2(2) = 21.12$, $p < .001$, $\phi = .39$. Results indicate that a much higher percentage of articles about Hurricane Matthew were objectively written (neutral value bias), compared to articles about the Flood of Louisiana. Interestingly, the articles about the Louisiana Flood of 2016 had both more positively biased and negatively biased stories (see Table 1).

Table 1. Comparison of the valence of news stories regarding weather events.

Event	Value Bias			Total
	Positive	Neutral	Negative	
Louisiana Flood of 2016	7	28	8	43
	16.28%	65.12%	18.60%	100.00%
Hurricane Matthew	0	89	8	97
	.00%	91.75%	8.25%	100.00%
Total	7	117	16	140
	5.00%	83.57%	11.43%	100.00%

Chi-square test revealed no statistically significant difference between the two events in terms of framing, $\chi^2(2) = 4.86$, $p = .088$, $\phi = .19$. Table 2 demonstrates how the two events were framed by journalists.

Table 2. Comparison of the framing of news stories regarding weather events.

Event	Goffman Frame			Total
	Natural	Social	Mixed	
Louisiana Flood of 2016	17	16	9	43
	40.48%	38.10%	21.43%	100.00%
Hurricane Matthew	49	19	26	97
	52.13%	20.21%	27.66%	100.00%
Total	66	35	35	140
	48.53%	25.74%	25.74%	100.00%

When articles that were not local to the flooding associated with Hurricane Matthew were parsed out from the data, no significant differences were found for valence ($\chi^2(2) = 5.07$, $p = .079$, $\phi = .28$), or for framing ($\chi^2(2) = 2.11$, $p = .348$, $\phi = .18$). To answer Research Question 2, articles written about the Louisiana Flood of 2016 were compared to articles written about Hurricane Matthew in terms of the primary focus of the author on event description of human interests. Chi-square test revealed a statistically significant difference between the two events in terms of primary focus, $\chi^2(2) = 8.88$, $p = .003$, $\phi = .26$. Results indicate that a much higher percentage of articles about Hurricane Matthew focused on the description of natural or social events compared to the stories of the victims or rescuers, compared to articles about the Flood of Louisiana. Interestingly, the articles about the Louisiana Flood of 2016 equal amounts of stories with both foci (see Table 3). When articles that were not local to the flooding associated with Hurricane Matthew were parsed out from the data, no significant differences were found for focus ($\chi^2(1) = 0.64$, $p = .424$, $\phi = .10$).

Table 3. Comparison of the focus of news stories regarding weather events.

Event	Story Focus		Total
	Event Description	Human Interest	
Louisiana Flood of 2016	21	21	42
	50.00%	50.00%	100.00%
Hurricane Matthew	67	21	88
	76.14%	23.86%	100.00%
Total	88	42	140
	67.69%	32.31%	100.00%

Additional tests were run to determine if any difference in links to climate change or locality to flood could be distinguished between weather events. Although a few articles for the Louisiana Flood of 2016 (n = 6) and Hurricane Matthew (n = 6) mentioned possible links to climate change as potential factors contributing to these weather events, no statistically significant difference could be found between the reporting of these two events as they might relate to climate change ($\chi^2(1) = 2.75, p = .133, \phi = .13$). As described in the introduction, news reports regarding Hurricane Matthew included nine states and several countries outside the United States. As hurricanes develop over the ocean and follow tracks with relatively predictable paths, some method to more directly compare the reporting of flooding associated with these two weather events was required. For example, the range of dates associated with articles reporting the Louisiana Flood of 2016 began on August 12, the first day of the event. However, the range of dates associated with articles reporting on Hurricane Matthew began September 28, a full ten days before landfall. Time to reporting of event from landfall (August 12, 2016 for the Louisiana Flood of 2016, and October 8, 2016 for Hurricane Matthew) was calculated and compared to determine the degree of difference in warning time individuals received. Using landfall dates, reporting of Hurricane Matthew occurred well in advance of the event (M = -.78, sd = 4.22) compared to the reporting of the Louisiana Flood of 2016 (M = 17.70, sd = 39.49), $t(42.42) = 3.06, p = .004, \omega^2 = .158$.

4.2 Social Media

To answer Research Question 3, social media posts about the Louisiana Flood of 2016 were compared to posts about Hurricane Matthew in terms of valence. Chi-square test revealed a statistically significant difference between the two events in terms of valence, $\chi^2(2) = 23.79, p < .001, \phi = .24$. As with traditional media, results indicate that a much higher percentage of posts about Hurricane Matthew were objectively written (neutral value bias), compared to articles about the Flood of Louisiana. Interestingly, the posts about the Louisiana Flood of 2016 had more positively biased and negatively biased valences, as was the case with traditional media (see Table 4). When combined the data from traditional media with the data from social media, the effect was more pronounced, $\chi^2(2) = 44.31, p < .001, \phi = .29$.

Table 4. Comparison of the valence of social media posts regarding weather events.

Event	Value Bias			Total
	Positive	Neutral	Negative	
Louisiana Flood of 2016	64	107	28	199
	32.16%	53.77%	14.07%	100.00%
Hurricane Matthew	32	154	14	200
	16.00%	77.00%	7.00%	100.00%
Total	96	261	42	399
	24.06%	65.41%	10.53%	100.00%

To answer Research Question 4, social media posts about the Louisiana Flood of 2016 were compared to posts about Hurricane Matthew in terms of the primary focus of the author on helping, reporting or blaming. Chi-square test revealed a statistically significant difference between the two events in terms of focus, $\chi^2(2) = 52.16, p < .001, \phi = .36$. Results indicate that a much higher percentage of posts about Hurricane Matthew focused on reporting or linking to other reporting compared to posts related to the Flood of Louisiana. Interestingly, a significant percentage of the social media posts associated with the Louisiana Flood of 2016 related to neighbors helping one another (see Table 5).neighbors helping one another (see Table 5).

Table 5. Comparison of the primary focus of social media posts regarding weather events.

Event	Primary Focus			Total
	Helping	Reporting	Blaming	
Louisiana Flood of 2016	84	88	26	198
	42.42%	44.44%	13.13%	100.00%
Hurricane Matthew	32	154	14	200
	16.50%	79.50%	4.00%	100.00%
Total	117	247	34	399
	29.40%	62.06%	8.54%	100.00%

The sheer volume of subscribers (1.1 Billion) on Facebook has a bearing on end dates after 100 posts were gathered, but there appeared to be an equal amount of posts from subscribers about both events in this sample, despite Hurricane Matthew affecting a larger area overall. Twitter, with 310M subscribers, shows an end date nearing the actual occurrence of the Louisiana Flood of 2016, in contrast (August 23, 2016). It can be assumed that because Hurricane Matthew affected many more areas geographically, that more content was contributed on Twitter from its subscribers. Both social media platforms seem to currently be concerned with either sharing ongoing relief efforts, the resiliency of the survivors, conspiracy theories, organizations recognizing their own efforts, or just to share a story, picture, or video about the event itself. Notably, recent Twitter posts about either event seemed to garner little to no attention from outside audiences. The same can be said for Facebook.

5. Discussion and Conclusion

Previous research on media reports of Hurricane Katrina indicate that both traditional and social media played an oversized influence on negative perceptions of victims and rescuers. The results of the present study indicate that both sources of information have “matured” in how such disasters are presented. To be sure, the vast majority of reports in traditional mass media and social media dealing with the Louisiana Flood of 2016 and Hurricane Matthew were neutral in valence and focused more on event description from a natural or social disaster frame. Reduced, compared to the media representations of Hurricane Katrina, were instances of blame.

More interesting in the present study was the finding that a more positive valence existed in news and social media reports involving rescue efforts of citizens in the Louisiana Flood of 2016. A stark difference in the number of Facebook postings related to the resilience of the Louisiana Flood survivors, as well as their pride in being from the State of Louisiana, compared to postings related to Hurricane Matthew. Perhaps such responses came forth from a people who were used to negative representations as a collective memory of the reporting of Hurricane Katrina from “outsiders”.

It is possible that traditional mass media and social media serve each other as feedback, providing traditional mass media organizations with information about what their audiences perceive about an event. To be sure, many if not most news organizations provide opportunities through the Internet, for citizens to comment and report, to a much greater degree in 2017 than in 2005. Such resources provide news organizations with access to the public agenda. On the other hand, this study revealed that social media posts were often re-posts or redirects to traditional mass media reports. Indeed, the majority of social media posts served a “reporting” function.

This study examined whether distinctions could be found in media reports between two events based on the Goffman natural versus social frames. The basis for the distinction was the previously found tendency of blaming the victims of a natural disaster in media reports related to Hurricane Katrina. Recently, media scholars have been questioning the efficacy of using framing as a method for studying media effects. Scheufele and Tewksbury (2007) suggested that agenda-setting, framing, and priming are mature, inter-related, and inform each other in investigations of media effects. However, Cacciatore, Scheufele, and Iyengar (2016) argued that “framing” is too vague as a term, and future research should distinguish between types of framing and investigate the “echo chambers” of mass and new media.

For example, perhaps social media is being utilized as a sort of therapeutic response to the traumas experienced by those posting. On a grander scale, perhaps the initial shock and need to document and post wears off, and people get down to actual business, leaving the cyber world behind in favor of real action in the physical plane. Perhaps the producers of “Internet” commentary lose interest and are on to the next disaster with little regard for the continuing stories of the humans affected by the disaster. Comparing social media with traditional news media bears a similar trend. Whatever the case, social media continues to churn out first-person content en masse, to this day, and cannot be dismissed as unreliable reporting even without an audience. Further examination of social media impact on the salience of issues may be necessary.

5.1 Limitations

This study examined media frames from the perspective of the authors of the articles. Within these articles were quotes from individuals which may have altered the frame from the perspective of the reader. This study did not distinguish between these perspectives. Further, the data for this study was through search algorithms provided by Google.com. To this end, the sampling technique might be considered non-probability, and therefore not representative of the corpus of materials available on the two weather events under investigation.

Further research might be necessary to determine whether traditional news representations of natural and social disasters have truly matured beyond the old habit of blame.

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