BLOGGING DISASTERS: COVERAGE OF APIATE CHEMICAL EXPLOSION ON SELECTED BLOGS IN GHANA

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Abstract

The emergence of the internet has led to the proliferation of blogs which provide news-worthy information to people. While scholars have studied blogs globally, very little is known about their coverage of disasters, especially in the Ghanaian context. This study, therefore, investigated how the January 20, 2022, Apiate chemical explosion in the Western Region of Ghana was covered on two Ghanaian blogs. Thirty-nine purposively sampled news stories on the selected blogs are content-analysed to examine the attention given to the stories on the explosion and the frames used to represent them on the blogs. The data collected were thematically analysed through the lens of the agenda-setting theory and the media framing theory. The study's findings revealed that much salience was not placed on stories about the explosion by way of frequency. However, when stories about the explosion appeared on the blogs, salience-directing cues such as images, videos and hyperlinks were attached to signify prominence to the readers. Furthermore, whilst frames of tragedy, hopeless situations and response to action were projected in the stories, the two blogs did not emphasise the responsibility frame, which would have held individuals/companies whose negligence led to the disaster accountable for their actions. Since blogs have become critical news sources for Ghanaians and can set the agenda for the public and policymakers, bloggers need to be circumspect about the nature of coverage given to social issues such as disasters.

Keywords: Agenda-setting, Apiate, Blogs, Disaster, Media Framing

Introduction

A major role of the media is to disseminate information before, during and after disasters to help with their prevention and management (Dave, 2021). These disasters can be natural (e.g., hurricanes, earthquakes) or man-made (e.g., plane crashes, explosions, etc.) (Severin & Jacobson, 2020). The Apiate chemical explosion that occurred on the 20th of January, 2022, in the Western Region of Ghana, is one of such man-made disasters that attracted both local and international media attention. According to a report on the incident by the International Federation of Red Cross and Red Crescent Societies (IFRC) on January 31, 2022,

> *... a large blast occurred in an area at Apiate community near the city of Bogoso, about 300km west of the capital of Ghana, Accra. The explosion occurred when a motorcycle went under a truck carrying explosives that was on route to the gold mine at Bogoso. After the blast, people in the community rushed down to the scene, and a second blast occurred a few minutes later. This resulted to the destruction of dozens of buildings [and the loss of about 17 lives] (p.1)*

In recent years, the proliferation of new media technologies such as the Internet has led to the emergence of alternative media where the public seeks information regarding happenings around them. These alternative media have gradually blurred the gatekeeping function of the mainstream media, thereby questioning whether the mainstream media still has the sole privilege of determining what news the audiences consume and the importance they attach to such news stories

(Agboola, 2014). News bloggers are among the alternative news sources (Bruns, 2018) who have transformed how news is produced and disseminated through their regular blogging activities. Branum (2001) avers that the blogging community can provide parameters which are used in discussing certain issues, thereby setting the agenda for their readers.

The growing number of blogs in the Ghanaian new media space cannot be overlooked. Every year, Avance Media, a leading PR and Rating Agency, hosts the Ghana Bloggers Summit, which brings together established and budding bloggers, journalists among other new media enthusiasts to share ideas for shaping the new media space in the country (Akpah, 2022). Whilst scholars have studied blogs globally (e.g., Gunter, 2009; Cha et al., 2012), more is needed to be known about their coverage of disasters, especially in the Ghanaian context. This paper, therefore, investigates the nature of coverage given to disasters by blogs using the January 20, 2022 Apiate explosion as a case. The following research questions guided the study:

1.   What salience is given to stories about the Apiate chemical explosion on the selected blogs?

2.   What frames were used to cover stories about the Apiate chemical explosion by the selected blogs?

The sections that follow discuss the theories that underpin the study, methods employed in collecting and analysing the data and the findings of the study. The conclusions and recommendations of the study are also provided to end the discussion.

Theoretical Framework

Agenda-setting theory
The study was anchored on the agenda-setting and media framing theories. To begin, the agenda-setting theory was tested in 1972 by Maxwell McCombs and Donald Shaw to prove the media's influence on the public's opinion (McCombs & Valenzuela, 2007). However, the original insight into the theory was proposed by Walter Lipmann in 1922 in his book *Public Opinion.* Lipmann (1922) averred that people did not respond immediately and directly to happenings in the real world but rather concentrated on a pseudo-environment comprised of "pictures in our heads" (Wu et al., 2013, p.10) presented by the media. The first level of agenda-setting answers the question of what pictures are in our heads. In this regard, concentration is placed on the frequency of issues in the news media. Thus, the issue that receives the most coverage is ranked first on the media agenda (Guo et al., 2012).

In its early days, the theory focused on the media selecting and placing salience on issues they considered important to the public (Campbell et al., 2009). Thus, the media, through the coverage of news stories, influenced the public on what to think about or which issues to prioritise by emphasising specific issues (Campbell et al., 2009). According to McCombs (2005), apart from the frequency of stories, the print media provides salience-directing cues through lead stories that appear on the first page, other front-page displays, large headlines and the use of enhancements. It is, however, noteworthy that some of these cues do not play out when analysing content from online websites such as blogs. For instance, *placement,* which has to do with front, back and inside pages, only pertains to print newspapers and electronic newspapers that have the same format as their print versions. For online media, salience-directing cues include frequency of stories, length of stories, multimedia features of stories (Mustapha & Wok, 2015). The two basic assumptions of

the agenda-setting theory are that the media first filters and shapes reality rather than reflects it. Thus, the produced news depends mainly on what the journalists and editors consider newsworthy.

Second, the more attention given to a particular issue or event by the media, the more priority the public will give to the same issue (Nkrumah & Hassan, 2021). Therefore, the agenda of a particular media organisation can be determined by the regular pattern of coverage that it gives to a specific issue over a week, month or an entire year (McCombs, 2002). In this study, the agenda-setting theory helped in identifying the nature of prominence placed on stories about the Apiate chemical explosion by *Ghbase.com* and *Ghpage.com*. Specifically, the salience-directing cues (frequency and multimedia features) aided in determining whether the blogs, which have become major news sources to Ghanaians, placed priority on the Apiate disaster, which could have an influence on the public's agenda.

Media Framing theory
Framing theory is also known as the second-level agenda-setting theory. The crux of this theory is that the media emphasise specific events and contextualise them to the public (Arowolo, 2017; Mass Communication Theory, 2017). Anthropologist Gregory Bateson is credited as the originator of the theory in 1972. This theory projects how the media selectively influences people's view of reality (Arowolo, 2017). Entman (1993), as cited in Ardevol-Abreu (2015), defines media framing as the process whereby the media select some aspects of reality and give greater salience to such realities by defining the problems, diagnosing the causes, suggesting moral judgments and proposing appropriate solutions and actions. McCombs and Valenzuela (2007) assert that media framing helps to structure specific issues in news stories into meaningful contexts. The media frame news stories to direct the audience on how to think about an issue. Iyengar (1991) hypothesised that how the media frames news stories influence how the media audience attributes responsibility to the causes and solutions to social issues.

Tankard et al. (1991), as cited in Dar et al. (2021), describe media frames as those central organising ideas of specific news contents that provide a context issue through selection, emphasis, exclusion and elaboration. Tankard (2001) lists headlines, photos, photo captions, leads, sub-headings, source selection, quotes selection, pull quotes, paragraphs, logos, statistics and charts as the frame-directing cues in news stories. McClure and Sibley (2011) assert that when issues are framed positively or negatively, they influence people's decision to take precautionary measures. Applying the media framing theory helped the researcher to identify the attributes (frames) of the Apiate disaster that were emphasised and those that were not. Knowing the frames assisted the researcher in discussing the implication of the findings to disaster coverage as emphasis implies priority and de-emphasis connotes neglect. Together, the agenda-setting and media framing theories assisted in investigating the nature of coverage given to the Apiate chemical explosion by the selected Ghanaian blogs.

Methodology
This paper adopted a qualitative content analysis in order to examine the content of blogs and identify the social realities in the content regarding the coverage of the Apiate chemical explosion that took place on the 20th of January, 2022. Thus, the focus of the study influenced the selection of the research approach and design for this paper (Creswell & Creswell, 2018). Two blogs,

Ghpage.com and *Ghbase.com,* were purposively sampled for the study. The two blogs were selected because they emerged as the first two most-read, popular and credible blogs as ranked by Avance Media in 2021. The two blogs also cover news and other socially relevant topics, such as disasters that interest the public. Data in the form of news stories were collected through document analysis (Bowen, 2009).

The researcher manually collected the data by visiting the two blogs and using the search engine to find the results for the keywords *Apiate, Apiate explosion, Apietse explosion, Bogoso explosion* and *chemical explosion*. After the search, 67 news stories were identified from both blogs. Stories that were not about the Apiate explosion, those outside the 1-month study period (January 20, 2022, to February 20, 2022), and those that appeared more than once during the search were all excluded from the data. After the exclusion criteria were determined, seventeen (17) stories relating to the keywords were identified on *Ghpage.com*, whilst twenty-two (22) stories were derived from *Ghbase.com*. All the thirty-nine (39) stories were copied and pasted into a Word document and saved in a folder.

The collected data was later analysed thematically using Braun and Clark's (2006) six-phase approach to coding and theme development. The data was read thoroughly and coded with a coding scheme guiding the process. The coding was done with particular attention to the *title of the story, date, source of the story, enhancements (images, videos, and hyperlinks) and frames*. The themes were generated both deductively and inductively. Tables were used in the study to help organize and present the findings in a "clear, parsimonious and convincing way" (Cloutier & Ravasi, 2020, p.25). The unit of analysis was a news story.

Findings and Discussion

Salience given to news stories about the Apiate explosion
In investigating the nature of coverage given to the Apiate explosion by the two blogs, the researcher examined the two salience-directing cues: *frequency* and *multimedia features*.

a) Frequency
For frequency, the researcher identified the number of stories about the explosion shared within the study period. According to the agenda-setting theory, the more attention is given to a story by way of frequency, the more the news audience is likely to think about that issue as relevant, making it a public agenda. The analysis identified that enough coverage was not given to stories about the explosion in the two blogs within the one-month study period. *Ghpage.com* shared 285 news stories within the period of study, whilst *Ghbase.com* shared 228 news stories. However*,* only 17 (5.97%) stories of the 285 stories on *Ghpage.com* were about the Apiate explosion, whereas 22 (9.65%) out of the total 228 stories centred on the explosion, as reported in *Ghbase.com.*

Table 1: Attention through frequency of stories

Date	Ghpage.com N (%)	Ghbase.com N (%)	Frequency N (%)
January, 2022	12 (30.8%)	20 (51.3%)	32 (82.1%)
February, 2022	5 (12.8%)	2 (5.1%)	7 (17.9%)
Total	**17 (43.6%)**	**22 (56.4%)**	**39 (100%)**

Source: Researcher's data (2022)

Table 1 reveals that within the study period, *Ghbase.com* shared more stories (56.4%) about the explosion than *Ghpage.com* (43.6%). Also, more stories were shared in January (82.1%) than in February (17.9%). This is because January was the month the disaster took place hence, it was still current with various angles and perspectives coming from the bloggers According to Knight (2006), disasters disrupt communities and systems, which may take days, weeks or even months to rebuild. For this reason, one may expect that a disaster like the Apiate explosion, which claimed lives and properties and led to the Apiate community being referred to as "a ghost town" in a story by *Ghbase.com*, would have been given more attention by the two popular blogs since they have become relevant sources of news to Ghanaians. According to Guo et al. (2012), the more an issue is given a lot of media coverage, the more prominence is placed on the story by the readers as well. Hence, since the media placed little priority on the explosion, the news audience did not consider it as important.

b) Multimedia Features

Another criterion used to determine the salience given to stories about the explosion on the selected blogs was the presence of multimedia features, also known as enhancements. According to Barnhurst (2002), enhancements make the stories visually appealing for readers, motivating them to read more. It can, therefore, be conjectured that readers are more likely to gravitate towards stories with enhancements than those made up of just plain texts. The analysed data revealed that the selected blogs used images, videos and hyperlinks to communicate stories about the explosion.

Table 2: Frequency of enhancements

Multimedia Features	Ghpage.com N (%)	Ghbase.com N (%)	Total (%)
Images	11 (22.9%)	17 (35.4%)	28 (58.3%)
Videos	6 (12.5%)	6 (12.5%)	12 (25%)
Hyperlinks	3 (6.25%)	5 (10.45%)	8 (16.7%)
Total	**20 (41.65%)**	**28 (58.35%)**	**48 (100%)**

Source: Researcher's data (2021)

Table 2 shows that out of the total 48 enhancements used, 58.3% were images, 25% were videos, and 16.7% were hyperlinks. The findings revealed that every story had at least one accompanying image and video and/or hyperlink. For the two blogs, some stories had two or more images combined as a single image. For example, the story with the headline, "*17 People dead so far – MCE for Prestea Huni-Valley sadly reveals,*" shared on Ghbase.com on 21/01/2022, combines four different images as one to give readers different angles of the explosion, which may convey different meanings and emotions. Examples can be seen in Figures 1 and 2.

Apart from actual pictures of people and places, as seen in Fig. 1 and 2 below, other images were screenshots of posts shared on various social media platforms by the sources from whom the bloggers obtained their stories. The use of different types of enhancements in the stories reinforces the argument by Barnhurst (2002) that news audiences are visually attracted to read stories with various multimedia features as they are striking and can convey more meaning than mere words**.**

Fig. 1 Image from Ghpage.com   *Fig. 2 Image from Ghbase.com*

The analysis further revealed that the hyperlinks used in the stories were mostly connected to external Social Networking Sites (SNSs) such as Instagram and Twitter. According to Dimitrova et al. (2003), the link to external sources is another advantage of online media as it helps readers have an in-depth understanding of a story, thereby giving it more prominence. Bruns (2018) confirms Dimitrova et al.'s (2003) assertion when he states that the hyperlinked nature of the web allows newsmakers to refer directly back to their online sources. Thus, readers who click on hyperlinks get a broader sense of the stories from the direct sources. A total of 20 and 28 enhancements were employed by *Ghpage.com* and *Ghbase.com*, respectively. The two blogs also used videos to give stories about the Apiate chemical explosion a clearer context.

Media Frames employed in the stories

Blogs as alternative media (Atton, 2008) also use the framing of events such as disasters to direct readers' minds on how to think about such occurrences**.** Drawing from Entman's (1993) classic classification of frames, as cited in Ardevol-Abreu's (2015), the study found that the Apiate explosion was framed around the definition of the problem, the diagnosis of the causes of the explosion, the making of moral judgment and the suggestion of remedies. The two blogs narrated stories about the Apiate explosion around the frame of *tragedy, hopeless situation, response action* and *responsibility.*

Table 3: Frequency of frames used in covering the Apiate explosion stories

Frames	Frequency of stories (Ghpage.com)	Frequency of stories (Ghbase.com)	Total N (%)
Tragedy	15 (38.45%)	15 (38.45%)	30 (76.9%)
Hopeless situation	-	2 (5.1%)	2 (5.1%)
Response Action	2 (5.1%)	3 (7.8%)	5 (12.9%)
Responsibility	-	2 (5.1%)	2 (5.1%)
Total	**17 (43.55%)**	**22 (56.45%)**	**39 (100%)**

Source: Researcher's data (2022)

Table 3 shows that news stories about the explosion were framed around four themes- *tragedy, hopeless situation, response action and responsibility*. In all, the frame of tragedy ranked first with 76.9% of stories, followed by the frame of response action with 12.9% and then the frame of hopeless situation and responsibility frame with 5.1% each. Whereas *Ghbase.com* has stories running through all four frame types, *Ghpage.com* employed only two major frames (Tragedy and response action) in their report of the Apiate chemical explosion.

a) Frame of Tragedy
Under this frame, news stories highlighted the situational analysis of the explosion by providing facts about the cause of the explosion, the victims involved, and the properties lost. News stories with words and phrases such as "scores dead", "dozens injured", "heads, hands and legs scattered", "collide with truck", etc. were categorised under this frame. Table 3 shows that both blogs framed 30 stories out of the total 39 stories as a tragedy. Examples of stories that had this frame include news articles with the headlines;

> *"Scores feared dead with dozens injured in Tarkwa Bogoso explosion" – Ghpage.com, 20/01/22.*

> *"I've lost everything I've worked hard for in just a day –victims of the explosion at Bogoso speak" – Ghbase.com, 21/01/22*

b) Frame of Response Action
This frame highlights the actions taken and support from the government, celebrities and other organisations after the explosion. News stories containing words and phrases such as "to pay a visit", "expresses sadness", "prays for the families", "rebuild houses", etc. were grouped under this frame. *Table 3* shows that the frame of response action ranked second, with 12.9% of the news stories being linked to it. Examples of stories that had this frame include news articles with the headlines;

> *"Ibrahim Mahama donates truckload of rice tins of mackerel and gallons of oil to the resident" – Ghpage.com, 23/01/22*

> *"Fameye set to support the people of Bogoso Apietse after the explosion destroys their community" – Ghbase.com, 25/01/22*

c) Frame of Hopeless situation
This frame gives a gloomy picture of the explosion's aftermath and effect on the Apiate community and its members. The theme was predominantly used by *Ghbase.com,* as seen in Table 3, where two news stories embodied this frame. The headlines for the two stories are:

> "*Apiate community can't be inhabited by humans –NADMO"- Ghbase.com, 21/01/22*

> *"Ghost town as whole Apiate community is burnt down – MCE Dr. Isaac Dasmani" – Ghbase.com, 21/01/22*

Ghbase.com gave readers an idea of the explosion's negative effects, influencing them on how to think about the explosion, which, according to the framing theory, will direct them on the precautionary measures to take in preventing any similar occurrence. According to Entman (1993), as cited in Ardevol-Abreu (2015), frames in the news can be recognised and explored based on the inclusion and exclusion of some keywords, phrases, sources of information, etc. Fairhurst and Sars (1996) identify the use of metaphor as a significant cue in identifying a frame in a media text. Hence, Ghbase.com likening the Apiate community to a "ghost town" which cannot be inhabited by humans gave an indication of what the blog emphasised, which painted a gloomy picture to the readers and directed them to perceive the town as hopeless. On the other hand, it can also be

deduced that since only two stories out of the entire 39 stories were about the frame of hopeless action, the bloggers did not place much emphasis on this frame, indicating that all hope is not lost for the Apiate community hence readers should not prioritise that frame.

d) Frame of Responsibility

The final frame that was identified from the data was the responsibility frame. Under this frame, stories emphasised the individuals and companies whose actions caused the disaster. Thus, responsibility is assigned to such groups, and actions are taken to penalise them. Stories with words such as "fine imposed", "suspends license", "interdicts CEO", etc., all fell under this frame. Only Ghbase.com shared two stories on the responsibility frame. Thus, the two blogs did not emphasise this frame; hence, the public will not be influenced to see that aspect of the disaster as important. Examples of the headlines with stories on this frame are:

> "*Bogoso Explosion: Gov't interdicts CEO of mining company whose mining equipment exploded; suspends license*" – Ghbase.com, 24-01-2022

> "*Apiate town to get $5million from the $6million fine imposed on Maxam mining company*" – Ghbase.com, 11-01-2022

Conclusion and Recommendation

This study investigated the coverage given to disasters on two Ghanaian blogs *(Ghpage.com and Ghbase.com)* by exploring the case of the January 20, 2022, Apiate chemical explosion in the Western Region of Ghana. The study's findings revealed that by way of frequency, insufficient attention was given to the issue under study during the 1-month study period, even though salience was given by interweaving the 39 stories with enhancements in the forms of videos, images and hyperlinks. The study's findings further discovered that the Apiate explosion was framed around *tragedy, hopeless situations, response action and responsibility*. The two blogs placed emphasis on the frame of tragedy and response actions which implied that more people were directed to prioritise these attributes of the disaster. However, the responsibility frame was not given much attention. Since man-made disasters like the Apiate chemical explosion have critical implications for people and properties, blogs need to frequently cover such issues in order to influence the public and policy agenda. This paper recommends that blogs increase their coverage of disaster stories and keep to their use of the tragedy and response action frames so as to increase awareness of the effect of such man-made disasters on people and properties and the support that comes along with them. Also, the responsibility frame needs to be constantly emphasised so that people or groups whose actions cause such disasters will be held accountable for their actions.

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