



BP analysis during oil spill

Introduction

The Deepwater Horizon BP oil spill which took place over a 3 month period in 2010 was a story that made the global news.

What seemed at first a straight forward if regrettable ecological disaster soon hit the front pages of national newspapers for a number of reasons including its impact on the financial markets; the growing international row between the US and the UK; the looming legal battle against BP; the efforts of the engineering community to stem the flow of oil; and human interest stories such as the impact on fishing and local communities reliant on tourism.

The volume of social media comments being made during this period on this topic was vast, making analysis of this data using traditional methods difficult. This article will examine some of the analysis undertaken by Brand Aura to describe the trends of public opinion during this period.

Analysis

At the end of May, Brand Aura downloaded and analysed over 44 thousand tweets on the subject of 'BP'. At this stage the oil spill had not been stopped, and the oil was continuing to flow at great risk to the environment. The story had reached international significance by this stage, and the tweets were made by a wide geographic spread, focussed mainly on the US and the UK. BP was attempting to stem the flow at this stage by a number of methods, including plugging the hole with cement, all of which had failed.

To give an indication of the contextual analysis at this stage, refer to Figure 1 which shows the words in context with the word 'oil'. The word cloud shows words that are in context with this word, and the closer the words are to the centre, then the closer in context the particular word is with the word 'oil'.

As would be expected, we see the word 'spill' coming through strongly. We see other words reflecting the main topics for discussion during this particular week - ruining, shares, company, shut, plunge, failure, attempt, disaster, ocean. The meaning of these words should be clear, but refer to the effect of the disaster on the company and its shares, the ecological disaster facing the ocean, and the failed attempt to stem the flow of oil from the rupture.

We also see Obama coming through in context, reflecting the fact that this story had become of national importance to the US and Obama was under pressure to resolve the situation and put pressure on BP to ensure that they pay for any subsequent clean up.

Worryingly for BP we also see the word 'boycott' coming through in context, implying a US boycott of BP service stations and other products.

To extend this analysis, we monitored a further 220 thousand tweets made over a week's period following the analysis above. The following list shows the analysis of BP and President Obama in context, and shows the words that were most commonly found in context with these two key words.



Figure 1: Contextual analysis of data around word 'oil'



The analysis shows that initially, there appeared to be concern that President Obama had not spoken with BP. This then moves on to show that he is under attack from the media from a seeming lack of action on this issue. Following this where President Obama issued a number of statements on the matter, he again attracted criticism, this time referring to him 'bullying' and 'demonising' BP. Finally we see some actions that are to be taken, relating to cash being retained by BP for the clean up cost of the oil spill.

06.06.10 spoken, hasnt, directly, captured, being.

07.06.10 spoken, hasnt, president, doesnt, administration, boot, neck, American.

08.06.10 lashes, media, chief, afp, barack, fire, crisis.

09.06.10 downplays, number, attack, enemy, public, osama, guardian, fears.

10.06.10 chairman, week, meet, invites, administration, update, Washington, allen.

11.06.10 Britain, bullying, stop, demonising, says, cantor, eric, news.

12.06.10 promise, ready, president, suspend, executives, retain, cash, mee (Massey Energy Co.)

We can also do a similar trend analysis on the same data in context by examining the context between BP and cost. This analysis is shown below in the list of dates and the words that were most commonly found in context.

This time the public response initially focuses on the environmental cost of the clean up operation, moves on to a discussion of the impact on jobs in the Florida region, then looks at the political pressure being brought to ensure BP covers these costs, before again looking at the impact on jobs. Finally the discussion moves onto the effect on housing and property prices before finally discussing the impact on shares and the loss in their value.

07.06.10 billion, far, captures, reach, cleanup, same, current.

08.06.10 florida, report, 195, jobs, real, flow, billions.

09.06.10 pressure, political, default, company, soar, swaps, back, then.

10.06.10 jobs, billion, 195, dollars, workers, fla, dollars, workers, 189.

11.06.10 cost, real, estate, billion, coud, values, property, homeowners, clean.

12.06.10 began, shares, almost, value, halved, people, mcartney, derek.



Conclusions

This piece of analysis clearly shows the power of using contextual analysis to keep track of the changing public perception of a particular brand or issue. The analysis shown above shows how trending in the data can be identified, and how the discussion moves from one topic to another.

The same data set can be analysed in different contexts using different keywords to effectively allow 'follow up' questions to be asked of the public opinion. Unlike a traditional questionnaire which has a fixed number of questions and answers, with little or no ability for follow up questions based on the intelligence gathered, the contextual analysis of the data allows the public's opinion to be better understood and investigated fully.

This article therefore shows the power of these techniques when trying to keep track of changing opinion's on a particular brand, and increases the tool kit available when firefighting or otherwise any particular issue that impinges on the public consciousness.