



## Understanding social media using Sentiment Analysis

### Is this a new science or a new fad?

**Social media sites make up at least half of the top 20 websites in most regions of the world. This has left companies, that primarily judge the health of their brands in the online world by web statistics and click-through rates, in real need of rethinking their social media strategies.**

**Jennifer Major, Business Development Manager, Communications, Media and Entertainment Practice at SAS UK, argues that Sentiment Analysis, though still in its infancy, provides a sophisticated science that will not only help companies react to reduce damage from negative comments but also monitor customer sentiment as part of their ongoing brand management.**

“We’ve seen the blunders big companies have made by not monitoring and, more importantly, not reacting intelligently and expeditiously to social upheaval in the digital space – how can we forget United Airlines’ fate following musician Dave Carroll’s infamous YouTube video of *United Airlines Breaks Guitars* and its sequels? In today’s current market, businesses and their reputations cannot afford to take that kind of hit.

Through blogs, message boards, fan pages and the like, the Internet is fast rebalancing the relationship between customers and companies, while social media networks, such as YouTube and Twitter, are giving consumers instant and, occasionally, very powerful ways to ‘strike back’ and make their voices heard.

Companies from all industries have quickly realised the necessity to go where the conversation is going in order to remain relevant and pertinent to customers. Big companies, such as Ford, Proctor&Gamble and Coca-Cola to name but a few, have recognised the need to use the Internet and, more importantly, the rich vein of market intelligence that social media sites provide, to ‘listen’, monitor and, if need be, counteract any bad publicity these virtual – and viral – conversations might be generating in order to avoid a fate similar to that of United Airlines.

### **Social Media Analysis – tools abound**

From the Financial Times’ ‘Newsswift’ program, to the funkier named ‘Tweetfeel’, ‘Twendz’ and ‘Twitrratr’, a plethora of social media analysis tools have hit the market. These include solutions, such as text mining, natural language processing and other sentiment analysis technologies that have been developed to help organisations gain intelligence from social media sites and build a more complete view of their brands’ reputation from a consumer’s perspective.

Businesses are clearly spoilt for choice. Social media technology and techniques include web crawling APIs that collect keywords and free format text relating to specific criteria, text mining applications that analyse key concepts, features and even segments of common terms, as well as pattern matching, probabilistic modelling and sentiment analysis technologies that evaluate the information as positive, neutral or negative. Such tools and techniques have been added to the product portfolios of an array of companies including Internet/publishing/data mining/research/marketing organisations including the likes of Factiva, Motive Quest and Omniture, to keep on top of the social media game. Is this seemingly ‘Jack of all trade, Master of none’ approach to social media analysis a reliable one or should businesses wanting to monitor, measure

and understand social media conversations opt for organisations with an expert analytic heritage at its core?

### **Social Media Analysis tools: which one's for me?**

A combination of the above techniques can undoubtedly provide a richer and more contextual set of data than traditional keyword spotting tools – yet which is the best one to adopt? It is clear that there are companies out there that generally take a couple of different stances to analysing social media information – so it is important to note the distinctions, which will ultimately impact the relevance, reliability and validity a business might be looking for.

The simplest algorithms work by scanning keywords to categorise a statement as positive or negative based on simple binary analysis ('love' is good 'hate' is bad). However, such an approach fails to capture the subtleties that bring human language to life: irony, sarcasm, slang and other idiomatic expressions. Social media, which are by nature dynamic and based on unstructured forms of information, do not fit neatly into traditional database-driven analytics systems. You need reliable sentiment analysis capabilities that require the ability to understand many linguistic shades of grey.

### **Sentiment Analysis: the true differentiator**

Sentiment Analysis is an important, but very hard to master, science and it is still in its infancy. While it can be quite accurate – reliability => maybe high => 80 per cent or higher – it does not necessarily make the data valid or useful for making strategic decisions grounded in effective brand monitoring. Also when it comes to languages, things get more complex than simple tweet or text analysis, making success an even more elusive concept for sentiment analysis, where cultural differences – an American 'quite' would mean 'very' whereas an English 'quite' would refer to 'not at all' – and linguistics come into play – sinful isn't always sinfully good chocolate.

Understanding social media is much more sophisticated and demands building in an analysis of sentiment. It is fair to assume that the added value promised from a company whose heritage isn't a sophisticated analytical one, would not be equipped to analyse and provide as relevant results when translating finer linguistic nuances, cultural factors and the vagaries of human emotion, and might not help avoid what could be very damning social media comments.

The choice of a social media analysis platform to protect brand reputation requires companies to include the important, but very hard to master, science of Sentiment Analysis into its analytical reporting. In this fast-paced market, it is important to be able to review information in near real-time. Bringing all this data together – research, monitoring, sentiment analysis and other analytical capabilities – can start to provide the grand unified vision that overlays all relevant data sets for correlative analysis.

Only this way will we start to determine an ROI for social media campaigns – finding the meaning within the measurement is critical.

#### **About the author**

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#### **About SAS**

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SAS acquired Teragram, the leader in natural language processing (NLP) and advanced linguistic technology, in 2008 to enhance SAS' own robust text mining and analytical BI offerings, by adding natural language processing, automatic categorisation and natural language enterprise search technology to its analytical portfolio.

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