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TWITTER HASHTAG SENTIMENT
SENTIMENT ANALYSIS
TWITTER

Twitter Hashtag Sentiment Is Easy #ExceptWhenItsNot

By Audrey Klammer, Marketing Director

Determining Twitter sentiment is already a challenge given the casual nature of tweets and the limits of 140 characters. But then you add hashtags: unspaced words or phrases with a '#' sign in front of them. We look at a hashtag and are naturally able to break it down into the most probable set of words or phrases. A computer instead sees a hashtag as a compound word. It must first perform "sentiment hashtag decomposition" to break the hashtag into recognizable words and phrases before it can determine its sentiment.

How is hashtag sentiment performed? Instead of using the inefficient process of compiling a list of commonly used hashtags, the process of "compound word expansion" separates the hashtag into individual words using statistical language modeling. The hashtag, or the "compound word," is "expanded" by adding spaces between what the system has determined is the most probable sequence of words. Since there are often multiple ways to chunk words in a hashtag, statistical language modeling helps to provide the most probable one.

For example, the hashtag #daretodream is a hopeful and positive statement used in a variety of ways, but adopted lately by World Cup fans. Our natural language processing (NLP) system recognizes #daretodream as a positive statement, and when it's added to a neutral statement such as "Room on the bench for these lads?" the system realizes that it's now a positive one (try it yourself using our [online demo](#)). Without Twitter hashtag decomposition the computer would see #daretodream as "daretodream," instead of "dare to dream."



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Room on the bench for these lads? #daretodream

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Another example is the neutral statement, "Me and my bros after training," made positive by these hashtags: #dfb #Brazil #WorldCup2014 #team #friends #training #poldi #aha #lp10 #germany.

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Me and my bros after training #dfb #Brazil #WorldCup2014 #team #friends #training #poldi #aha #lp10 #germany

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One more example, the title of this post, "Twitter Hashtag Sentiment Is Easy #ExceptWhenItsNot" is found to be overall neutral however #ExceptWhenItsNot is correctly found to be negative.

To read more about the process of applying sentiment analysis to Twitter using AlchemyAPI, read developer Greg Case's blog post on "[Applying Sentiment Analysis to Twitter](#)."