

Exploring Twitter's API

Fundamental Twitter Terminology

Twitter might be described as a real-time, highly social microblogging service that allows users to post short status updates, called tweets, that appear on timelines. Tweets may include one or more entities in their 140 characters of content and reference one or more places that map to locations in the real world. An understanding of users, tweets, and timelines is particularly essential to effective use of Twitter's API, so a brief introduction to these fundamental Twitter Platform objects is in order before we interact with the API to fetch some data. We've largely discussed Twitter users and Twitter's asymmetric following model for relationships thus far, so this section briefly introduces tweets and timelines in order to round out a general understanding of the Twitter platform.

Tweets are the essence of Twitter, and while they are notionally thought of as the 140 characters of text content associated with a user's status update, there's really quite a bit more metadata there than meets the eye. In addition to the textual content of a tweet itself, tweets come bundled with two additional pieces of metadata that are of particular note: entities and places. Tweet entities are essentially the user mentions, hashtags, URLs, and media that may be associated with a tweet, and places are locations in the real world that may be attached to a tweet. Note that a place may be the actual location in which a tweet was authored, but it might also be a reference to the place described in a tweet.

To make it all a bit more concrete, let's consider a sample tweet with the following text:

@ptwobrussell is writing @SocialWebMining, 2nd Ed. from his home office in Franklin, TN. Be #social: <http://on.fb.me/16WJAf9>

The tweet is 124 characters long and contains four tweet entities: the user mentions @ptwobrussell and @SocialWebMining, the hashtag #social, and the URL <http://on.fb.me/16WJAf9>. Although there is a place called Franklin, Tennessee that's explicitly mentioned in the tweet, the places metadata associated with the tweet might include the location in which the tweet was authored, which may or may not be Franklin, Tennessee. That's a lot of metadata that's packed into fewer than 140 characters and illustrates just how potent a short quip can be: it can unambiguously refer to multiple other Twitter users, link to web pages, and cross-reference topics with hashtags that act as points of aggregation and horizontally slice through the entire Twitter verse in an easily searchable fashion.

Finally, timelines are the chronologically sorted collections of tweets. Abstractly, you might say that a timeline is any particular collection of tweets displayed in chronological order; however, you'll commonly see a couple of timelines that are particularly noteworthy. From the perspective of an arbitrary Twitter user, the home timeline is the view that you see when you log into your account and look at all of the tweets from users that you are following, whereas a particular user timeline is a collection of tweets only from a certain user.