Twitter Reader

Description

This algorithm reads a list of Twitter handles from a file and attempts to pull their recent status updates and information about the individual status updates. The user may also specify hashtags. If a hashtag is specified, the results will only contain statuses containing that hashtag. This could prove very useful for analyzing world/regional news, trends, or bursts.

Pros & Cons

1. With the arrival of Twitter API's v1.1 update, the user is now REQUIRED to authenticate with Twitter before performing any queries. v1.1 also brought an update to the OAuth platform in use. This required a complete overhaul of the plugin.
2. Twitter has implemented tighter rate limiting for searching statuses. Rate limiting works in 15-minute windows. Each window allows you to perform 180 queries.
3. Twitter has limited the cutoff date of Tweets. It is currently unclear in their documentation how far back tweets are saved, but it is clear that there is a limit.

Applications

This plugin is useful for social media analyzers. Since it allows the user to specify a hashtag along with a list of users, one could easily analyze trends, bursts, or just show the pure volume of response to a major world/regional event.

Implementation Details

The algorithm takes a list of input data (Twitter handles) and requests a query from Twitter. The result lists the Twitter User Id, Twitter Username, date created, and the status itself. This plugin is included with the Sci2 application. It can be found under **File > Twitter Reader** along with the rest of the data generators.

The detail of the algorithm is shown as following,

1. *TwitterReaderFactory* prepares the prerequisite information for the Twitter Reader to run. This class prepares the authentication file, the file path of the CSV file, and any other parameters given to the algorithm. Once prepared, it starts the TwitterReader algorithm.
2. **TwitterReader** reads the input data and structures it for the Twitter REST API. Before it runs the query, this algorithm takes the authentication parameters from the Factory and creates a Twitter Instance. This instance is used in conjunction with the query to return the results.

Usage Hints

Here is a 7 steps guide for using the plugin:

1. Make sure you are connected to the internet.
2. Load an input data table that contains the user information.
3. Select **File > Twitter Reader** from the menu bar. A window will pop up.
4. Add any hashtags you would like to analyze along with your user list.
5. Select the column of your CSV that containts the Twitter users' handles.
6. Select *Browse...* on the third option and find your Twitter authorization .PROPERTIES file. (Instructions for creating this file can be found here).
7. Run the algorithm!

Each status update will be listed out by each Twitter user in the order that the status was created. The algorithm stops when the query can return no more results, or your application has exhausted it's rate limit.

Links

- Source Code: Link
- Root Source: Link
- External Package: Link