

Package ‘tfse’

June 30, 2016

Type Package

Title twitter follows & selective exposure

Version 1.0.0

Author Michael W. Kearney

Maintainer Michael W. Kearney <mkearney@ku.edu>

Description this package contains R code used in my dissertation research most of the functions are designed to interact with twitter's API. this repository will one day be organized into more useful replication materials. until then, it's is a work in progress.

License MIT + file LICENSE

LazyData TRUE

RoxygenNote 5.0.1

Imports httr, jsonlite, dplyr

R topics documented:

c.string	2
check_rate_limit	2
data_frame_lookup	3
data_frame_status	4
fromJS	4
get_api	4
get_followers	5
get_followerslist	5
get_followers_max	6
get_friends	6
get_friendships	7
get_friendslist	7
get_friends_max	8
get_friends_ply	9
get_list	9
get_lookup	10
get_lookup_max	10
get_package_pdf	11
get_retweets	11
get_timeline	12
get_token	13
get_wave	14

get_wave_data	14
gg_cols	15
is_screen_name	15
load_tokens	15
prep_vector	16
search_tweets	16
sn2id	17
top_tweet_words	18
try_catch	18
TWIT	19
wave_path_name	19
which_ids	20

Index	21
--------------	-----------

c.string	<i>c.string</i>
----------	-----------------

Description

c.string

Usage

```
## S3 method for class 'string'
c(x)
```

Arguments

x Character vector

Value

Printed output via cat() function for copy/paste of long strings

check_rate_limit	<i>check_rate_limit</i>
------------------	-------------------------

Description

check_rate_limit

Usage

```
check_rate_limit(type, token, seconds = FALSE)
```

Arguments

type	If not missing, which returns entire rate limit request object, type returns specific values; e.g., type = "lookup" returns remaining limit for user lookup requests; type = "followers" returns remaining limit for follower id requests; type = "friends" returns remaining limit for friend id requests.
token	An OAuth token (1.0 or 2.0)
seconds	logical, indicating whether to return unix seconds

Value

response Rate limit response object or specific value of remaining requests

See Also

See <https://dev.twitter.com/overview/documentation> for more information on using Twitter's API.

data_frame_lookup	<i>data_frame_lookup</i>
-------------------	--------------------------

Description

data_frame_lookup

Usage

data_frame_lookup(x)

Arguments

x json resposne object from user lookup Twitter API call.

Value

data frame

See Also

See <https://dev.twitter.com/overview/documentation> for more information on using Twitter's API.

data_frame_status	<i>data_frame_status</i>
-------------------	--------------------------

Description

data_frame_status

Usage

data_frame_status(x)

Arguments

x	json object from search tweets
---	--------------------------------

fromJS	<i>fromJS</i>
--------	---------------

Description

fromJS

Usage

fromJS(x)

Arguments

x	json object
---	-------------

get_api	<i>get_api</i>
---------	----------------

Description

get_api

Usage

get_api(url, token = NULL)

Arguments

url	API url address.
-----	------------------

Value

Response formatted as nested list. Assumes response object is json object.

get_followers	<i>get_followers</i>
---------------	----------------------

Description

get_followers

Usage

```
get_followers(user, token, page = "-1", stringify = TRUE)
```

Arguments

user	Screen name or user id of target user.
token	OAuth token (1.0 or 2.0)
page	Default page = -1 specifies first page of json results. Other pages specified via cursor values supplied by Twitter API response object.
stringify	logical, indicating whether to return user ids as strings (some ids are too long to be read as numeric). Defaults to TRUE

Value

user ids

See Also

See <https://dev.twitter.com/overview/documentation> for more information on using Twitter's API.

get_followerslist	<i>get_followerslist</i>
-------------------	--------------------------

Description

Returns a cursored collection of user objects for users following the specified user.

Usage

```
get_followerslist(user, token, page = "-1")
```

Arguments

user	Screen name or user id of target user.
token	OAuth token (1.0 or 2.0)
page	Default page = -1 specifies first page of json results. Other pages specified via cursor values supplied by Twitter API response object.

Value

json user object (nested list)

See Also

See <https://api.twitter.com/1.1/followers/list.json>.

get_followers_max	<i>get_followers_max</i>
-------------------	--------------------------

Description

get_followers_max

Usage

get_followers_max(user, tokens)

Arguments

user	Screen name or user id of target user
tokens	OAuth tokens (1.0 or 2.0)

Value

user ids

See Also

See <https://dev.twitter.com/overview/documentation> for more information on using Twitter's API.

get_friends	<i>get_friends</i>
-------------	--------------------

Description

get_friends

Usage

get_friends(user, token, page = "-1", stringify = TRUE)

Arguments

user	Screen name or user id of target user.
token	OAuth token (1.0 or 2.0)
page	Default page = -1 specifies first page of json results. Other pages specified via cursor values supplied by Twitter API response object.
stringify	logical, indicating whether to return user ids as strings (some ids are too long to be read as numeric). Defaults to TRUE

Value

friends User ids for everyone a user follows.

See Also

See <https://dev.twitter.com/overview/documentation> for more information on using Twitter's API.

get_friendships	<i>get_friendships</i>
-----------------	------------------------

Description

Returns detailed information about the relationship between two arbitrary users.

Usage

```
get_friendships(source, target, token)
```

Arguments

source	Screen name or user id of source user.
target	Screen name or user id of target user.
token	OAuth token (1.0 or 2.0)

Value

json object (nested list)

See Also

See <https://api.twitter.com/1.1/friendships/show.json>.

get_friendslist	<i>get_friendslist</i>
-----------------	------------------------

Description

Returns a cursored collection of user objects for every user the specified user is following (otherwise known as their “friends”).

Usage

```
get_friendslist(user, token, page = "-1")
```

Arguments

user	Screen name or user id of target user.
token	OAuth token (1.0 or 2.0)
page	Default page = -1 specifies first page of json results. Other pages specified via cursor values supplied by Twitter API response object.

Value

json user object (nested list)

See Also

See <https://api.twitter.com/1.1/friends/list.json>.

get_friends_max	<i>get_friends_max</i>
-----------------	------------------------

Description

get_friends_max

Usage

```
get_friends_max(user_ids, tokens, start = 1, stringify = TRUE,
  verbose = TRUE)
```

Arguments

user_ids	Data frame with column name "screen_name"
tokens	OAuth tokens (1.0 or 2.0)
start	Starting value (nth user id)
stringify	logical, indicating whether to return user ids as strings
verbose	default behavior verbose = TRUE prints asterisk for every 15 (or max of one token) user networks collected. Set verbose = FALSE to run function silently. (some ids are too long to be read as numeric). Defaults to TRUE.

Value

friends List of user ids each user follows.

See Also

See <https://dev.twitter.com/overview/documentation> for more information on using Twitter's API.

get_friends_ply	<i>get_friends_ply</i>
-----------------	------------------------

Description

lapply() version of get_friends_max()

Usage

```
get_friends_ply(user_ids, tokens, start = 1)
```

Arguments

user_ids	Data frame with column name "screen_name"
tokens	OAuth tokens (1.0 or 2.0)
start	Starting value (nth user id)

Value

friends List of user ids each user follows.

See Also

See <https://dev.twitter.com/overview/documentation> for more information on using Twitter's API.

get_list	<i>get_list</i>
----------	-----------------

Description

get_list

Usage

```
get_list(slug, owner, token, count = 5000, cursor = "-1")
```

Arguments

slug	Name of Twitter list
owner	Screen name of list owner
token	An OAuth token (1.0 or 2.0)
count	Maximum number of users to return (cannot be higher than 5000).
cursor	Select next or previous page or results using cursor value from returned json object

Value

json response object as nested list

See Also

See <https://dev.twitter.com/overview/documentation> for more information on using Twitter's API.

get_lookup	<i>get_lookup</i>
------------	-------------------

Description

get_lookup

Usage

```
get_lookup(users, token, df = TRUE, skip = TRUE, entities = FALSE)
```

Arguments

users	Screen name or user id of target users.
token	OAuth tokens (1.0 or 2.0)
df	logical, indicating whether to format response as data frame

Value

response object

See Also

See <https://dev.twitter.com/overview/documentation> for more information on using Twitter's API.

get_lookup_max	<i>get_lookup_max</i>
----------------	-----------------------

Description

get_lookup_max

Usage

```
get_lookup_max(ids, tokens, start = 1)
```

Arguments

ids	User id or screen name of target user.
tokens	OAuth tokens (1.0 or 2.0)
start	First (nth) id

Value

response object

See Also

See <https://dev.twitter.com/overview/documentation> for more information on using Twitter's API.

get_package_pdf	<i>get_package_pdf</i>
-----------------	------------------------

Description

get_package_pdf

Usage

```
get_package_pdf(package, update = FALSE, open = TRUE)
```

Arguments

package	Name of target package.
update	logical, indicating whether to replace old manual
open	logical, indicating whether to automatically view preview of pdf

get_retweets	<i>get_retweets</i>
--------------	---------------------

Description

Returns a collection of the 100 most recent retweets of the tweet specified by the id parameter.

Usage

```
get_retweets(tweet_id, count = 100, trim_user = TRUE, token)
```

Arguments

tweet_id	required, The numerical ID of the desired status
count	optional, Specifies the number of records to retrieve. Must be less than or equal to 100.
trim_user	optional, When set to TRUE each tweet returned in a timeline will include a user object including only the status authors numerical ID. Omit this parameter to receive the complete user object.
token	OAuth token (1.0 or 2.0)

Value

json object

See Also

<https://api.twitter.com/1.1/statuses/retweets/:id.json>

get_timeline

get_timeline

Description

Returns a collection of the most recent Tweets posted by the user indicated by the `screen_name` or `user_id` parameters. User timelines belonging to protected users may only be requested when the authenticated user either “owns” the timeline or is an approved follower of the owner. The timeline returned is the equivalent of the one seen when you view a user’s profile on twitter.com. This method can only return up to 3,200 of a user’s most recent Tweets. Native retweets of other statuses by the user is included in this total, regardless of whether `include_rts` is set to false when requesting this resource.

Usage

```
get_timeline(user, since_id = NULL, count = NULL, max_id = NULL,
             trim_user = NULL, exclude_replies = FALSE, contributor_details = TRUE,
             include_rts = TRUE, token)
```

Arguments

<code>user</code>	The <code>screen_name</code> or ID of the user for whom to return results for.
<code>since_id</code>	Returns results with an ID greater than (that is, more recent than) the specified ID. There are limits to the number of Tweets which can be accessed through the API. If the limit of Tweets has occurred since the <code>since_id</code> , the <code>since_id</code> will be forced to the oldest ID available.
<code>count</code>	Specifies the number of tweets to try and retrieve, up to a maximum of 200 per distinct request. The value of <code>count</code> is best thought of as a limit to the number of tweets to return because suspended or deleted content is removed after the count has been applied. We include retweets in the count, even if <code>include_rts</code> is not supplied. It is recommended you always send <code>include_rts=1</code> when using this API method.
<code>max_id</code>	Returns results with an ID less than (that is, older than) or equal to the specified ID.
<code>trim_user</code>	When set to either true, t or 1, each tweet returned in a timeline will include a user object including only the status authors numerical ID. Omit this parameter to receive the complete user object.
<code>exclude_replies</code>	This parameter will prevent replies from appearing in the returned timeline. Using <code>exclude_replies</code> with the <code>count</code> parameter will mean you will receive up-to count tweets — this is because the <code>count</code> parameter retrieves that many tweets before filtering out retweets and replies. This parameter is only supported for JSON and XML responses.
<code>include_rts</code>	When set to false, the timeline will strip any native retweets (though they will still count toward both the maximal length of the timeline and the slice selected by the <code>count</code> parameter). Note: If you’re using the <code>trim_user</code> parameter in conjunction with <code>include_rts</code> , the retweets will still contain a full user object.

token	OAuth token (1.0 or 2.0)
contributor_details	This parameter enhances the contributors element of the status response to include the screen_name of the contributor. By default only the user_id of the contributor is included.

Value

json object (nested list)

See Also

See https://api.twitter.com/1.1/statuses/user_timeline.json.

get_token	<i>get_token</i>
-----------	------------------

Description

get_token

Usage

get_token(app, consumer_key, consumer_secret)

Arguments

app	Name of user created Twitter application
consumer_key	Application API key
consumer_secret	Application API secret User-owned app must have Read and write access level and Callback URL of http://127.0.0.1:1410.

Value

twitter oauth 1.0 token

See Also

See <https://dev.twitter.com/overview/documentation> for more information on using Twitter's API.

`get_wave`*get_wave*

Description`get_wave`**Usage**`get_wave(ids, tokens)`**Arguments**

<code>ids</code>	Vector of user ids
------------------	--------------------

Value

friends List of user ids each user follows.

See Also

See <https://dev.twitter.com/overview/documentation> for more information on using Twitter's API.

`get_wave_data`*get_wave_data*

Description`get_wave_data`**Usage**`get_wave_data(wave, ids, tokens)`**Arguments**

<code>wave</code>	Wave number
-------------------	-------------

Value

data Saved wave data and updated running data set

gg_cols	<i>gg_cols</i>
---------	----------------

Description

gg_cols

Usage

gg_cols(n)

Arguments

n number of colors to be generated

Value

colors a la ggplot

is_screen_name	<i>is_screen_name</i>
----------------	-----------------------

Description

is_screen_name

Usage

is_screen_name(x)

Arguments

x Twitter user id or screen name

Value

logical value indicating whether object is screen name [or user ID]

load_tokens	<i>load_tokens</i>
-------------	--------------------

Description

load_tokens

Usage

load_tokens()

Value

twitter oauth 1.0 tokens

prep_vector	<i>prep_vector</i>
-------------	--------------------

Description

prep_vector

Usage

prep_vector(x)

Arguments

x	data to be vectorized
---	-----------------------

search_tweets	<i>search_tweets</i>
---------------	----------------------

Description

Returns a collection of relevant Tweets matching a specified query. Please note that Twitter's search service and, by extension, the Search API is not meant to be an exhaustive source of Tweets. Not all Tweets will be indexed or made available via the search interface. In API v1.1, the response format of the Search API has been improved to return Tweet objects more similar to the objects you'll find across the REST API and platform. However, perspectival attributes (fields that pertain to the perspective of the authenticating user) are not currently supported on this endpoint. To learn how to use Twitter Search effectively, consult our guide to [Using the Twitter Search API](#). See [Working with Timelines](#) to learn best practices for navigating results by `since_id` and `max_id`.

Usage

```
search_tweets(q, geocode = NULL, lang = NULL, locale = NULL,
  result_type = "recent", count = 100, until = NULL, since_id = NULL,
  max_id = NULL, include_entities = TRUE, token)
```

Arguments

q	required, A UTF-8, URL-encoded search query of 500 characters maximum, including operators. Queries may additionally be limited by complexity.
geocode	optional, Returns tweets by users located within a given radius of the given latitude/longitude. The location is preferentially taking from the Geotagging API, but will fall back to their Twitter profile. The parameter value is specified by "latitude,longitude,radius", where radius units must be specified as either "mi" (miles) or "km" (kilometers). Note that you cannot use the near operator via the API to geocode arbitrary locations; however you can use this geocode parameter to search near geocodes directly. A maximum of 1,000 distinct "sub-regions" will be considered when using the radius modifier.
lang	optional, Restricts tweets to the given language, given by an ISO 639-1 code. Language detection is best-effort.

locale	optional, Specify the language of the query you are sending (only ja is currently effective). This is intended for language-specific consumers and the default should work in the majority of cases.
result_type	optional, Specifies what type of search results you would prefer to receive. The current default is "mixed." Valid values include "mixed" to include both popular and real time results in the response, "recent" to return only the most recent results in the response, and "popular" to return only the most popular results in the response.
count	optional, The number of tweets to return per page, up to a maximum of 100. Defaults to 15. This was formerly the "rpp" parameter in the old Search API.
until	optional, Returns tweets created before the given date. Date should be formatted as YYYY-MM-DD. Keep in mind that the search index has a 7-day limit. In other words, no tweets will be found for a date older than one week. Example Values: "2015-07-19".
since_id	optional, Returns results with an ID greater than (that is, more recent than) the specified ID. There are limits to the number of Tweets which can be accessed through the API. If the limit of Tweets has occurred since the since_id, the since_id will be forced to the oldest ID available.
max_id	optional, Returns results with an ID less than (that is, older than) or equal to the specified ID.
include_entities	optional, The entities node will be disincluded when set to false.
token	OAuth token (1.0 or 2.0)
callback	optional, If supplied, the response will use the JSONP format with a callback of the given name. The usefulness of this parameter is somewhat diminished by the requirement of authentication for requests to this endpoint. Example Values: "processTweets"

Value

json object

See Also

<https://api.twitter.com/1.1/search/tweets.json>

 sn2id

sn2id

Description

sn2id

Usage

sn2id(screen_name)

Arguments

screen_name Twitter handle

Value

response Twitter account user id

See Also

See <https://dev.twitter.com/overview/documentation> for more information on using Twitter's API.

top_tweet_words	<i>top_tweet_words</i>
-----------------	------------------------

Description

top_tweet_words

Usage

```
top_tweet_words(tweets_text, min = 3, exclude_words = NULL)
```

Arguments

tweets_text	character vector of tweets text
min	minimum number of occurrences to include in returned object
exclude_words	other words to exclude

Value

list object with top mentions and top words

try_catch	<i>try_catch</i>
-----------	------------------

Description

try_catch

Usage

```
try_catch(x)
```

Arguments

x	function call
---	---------------

TWIT	<i>TWIT</i>
------	-------------

Description

TWIT

Usage

```
TWIT(query, parameters = NULL, token, parse = TRUE, version = "1.1")
```

Arguments

query	Twitter API request type string. e.g, "friends/ids" calls Twitter API to return information about a user's friend network (i.e., accounts followed by a user).
parameters	Additional parameters passed along to API call
token	An OAuth token (1.0 or 2.0)

Value

json response object as nested list

See Also

See <https://dev.twitter.com/overview/documentation> for more information on using Twitter's API.

wave_path_name	<i>wave_path_name</i>
----------------	-----------------------

Description

wave_path_name

Usage

```
wave_path_name(data_folder = "/Users/mwk/r/tfse/study/data/")
```

Value

Printed output via cat() function for copy/paste of long strings

which_ids	<i>which_ids</i>
-----------	------------------

Description

Returns integer values. Used for get_friends function.

Usage

```
which_ids(n, max_users = 3000, token = NULL)
```

Arguments

n	starting number for users
max_users	max number of user ids (if rate limit exceeds remaining number of users, this sets upper ceiling and reduces likelihood of API request errors)
token	Specify token if there is reason to believe current remaning friend list request is below the rate limit max of 15. This rate limit resets every 15 minutes, so this is usually not necessary. Checking rate limits does not reduce the number of available requests, but it does slow things down.

Value

integers used to identify 15 (or token max given rate limits) users from provided list of user ids

Index

c.string, [2](#)
check_rate_limit, [2](#)

data_frame_lookup, [3](#)
data_frame_status, [4](#)

fromJS, [4](#)

get_api, [4](#)
get_followers, [5](#)
get_followers_max, [6](#)
get_followerslist, [5](#)
get_friends, [6](#)
get_friends_max, [8](#)
get_friends_ply, [9](#)
get_friendships, [7](#)
get_friendslist, [7](#)
get_list, [9](#)
get_lookup, [10](#)
get_lookup_max, [10](#)
get_package_pdf, [11](#)
get_retweets, [11](#)
get_timeline, [12](#)
get_token, [13](#)
get_wave, [14](#)
get_wave_data, [14](#)
gg_cols, [15](#)

is_screen_name, [15](#)

load_tokens, [15](#)

prep_vector, [16](#)

search_tweets, [16](#)
sn2id, [17](#)

top_tweet_words, [18](#)
try_catch, [18](#)
TWIT, [19](#)

wave_path_name, [19](#)
which_ids, [20](#)