Package 'graphTweets'

August 8, 2018

Type Package

Title Visualise Twitter Interactions

Version 0.4.3

Date 2018-08-07

Description Allows building an edge table from data frame of tweets, also provides function to build nodes and another create a temporal graph.

License MIT + file LICENSE

Depends R (>= 3.2.0)

Imports dplyr, igraph, rtweet, purrr, magrittr, utils, tidyr, zeallot, combinat

RoxygenNote 6.0.1

URL http://graphTweets.john-coene.com

BugReports https://github.com/JohnCoene/graphTweets/issues

Suggests testthat, knitr, rmarkdown

NeedsCompilation no

Author John Coene [aut, cre]

Maintainer John Coene <jcoenep@gmail.com>

Repository CRAN

Date/Publication 2018-08-07 22:30:03 UTC

R topics documented:

gt_collect *Collect*

Description

Collect

Usage

```
gt_collect(gt)
```

Arguments

gt	An object of class graphTweets as returned by gt_edges.

Value

A named list of tibble 1) edges and 2) nodes.

Examples

```
# simulate dataset
tweets <- data.frame(
  text = c("I tweet @you about @him",
           "I tweet @me about @you"),
  screen_name = c("me", "him"),
  retweet_count = c(19, 5),
  status_id = c(1, 2),
  stringsAsFactors = FALSE
)

tweets %>%
  gt_edges(text, screen_name, status_id) %>%
  gt_nodes() %>%
  gt_collect() -> net
```

gt_dyn *Dynamise*

Description

Create a dynamic graph to import in Gephi.

Usage

```
gt_dyn(gt, lifetime = Inf)
```

Arguments

gt	An object of class graphTweets as returned by gt_edges.
lifetime	Lifetime of a tweet in milliseconds, defaults to Inf.

Examples

```
## Not run:
# simulate dataset
tweets <- data.frame(
  text = c("I tweet @you about @him",
           "I tweet @me about @you"),
  screen_name = c("me", "him"),
  retweet_count = c(19, 5),
  created_at = c(Sys.time(), Sys.time() + 15000),
  status_id = c(1, 2),
  stringsAsFactors = FALSE
)

tweets %>%
  gt_edges(text, screen_name, status_id, "created_at") %>%
  gt_nodes() %>%
  gt_dyn() %>%
  gt_collect() -> net

## End(Not run)
```

---

gt_edges *Edges*

Description

Get edges from data.frame of tweets.

Usage

```
gt_edges(data, tweets, source, id, ...)

gt_edges_(data, tweets = "text", source = "screen_name", id = "status_id",
  ...)

gt_edges_hash(data, hashtags, source, ..., tl = TRUE)

gt_edges_hash_(data, hashtags = "hashtags", source = "screen_name", ...,
  tl = TRUE)

gt_edges_hashes(data, hashtags, tl = TRUE)

gt_edges_hashes_(data, hashtags = "hashtags", tl = TRUE)
```

Arguments

data	Data.frame of tweets, usually returned by the rtweet package.
tweets	Column containing tweets.
source	Author of tweets.
id	tweets unique id.
...	any other column name, see examples.
hashtags	Column containing hashtags.
tl	Set to TRUE to convert hashtags to lower case.

Details

The tl arguments stands for tolower and allows converting the #hashtags to lower case as these often duplicated, i.e.: #python #Python.

Value

An object of class graphTweets.

Functions

- gt_edges - Build networks of users.
- gt_edges_hash - Build networks of users to hashtags.
- gt_edges_hashes - Build networks of hashtags co-mentions.

Examples

```
# simulate dataset
tweets <- data.frame(
  text = c("I tweet @you about @him and @her",
           "I tweet @me about @you"),
  screen_name = c("me", "him"),
  retweet_count = c(19, 5),
  status_id = c(1, 2),
  hashtags = c("rstats", "Python"),
  stringsAsFactors = FALSE
)

tweets %>%
  gt_edges(text, screen_name, status_id)

tweets %>%
  gt_edges_(RT = "retweet_count") %>%
  gt_nodes()

tweets %>%
  gt_edges_hash(hashtags, screen_name) %>%
  gt_nodes()
```

gt_graph *Graph*

Description

Build igraph object.

Usage

```
gt_graph(gt)
```

Arguments

gt	An object of class graphTweets as returned by gt_edges.

Value

An object of class igraph.

Examples

```
# simulate dataset
tweets <- data.frame(
  text = c("I tweet @you about @him",
           "I tweet @me about @you"),
  screen_name = c("me", "him"),
  retweet_count = c(19, 5),
  status_id = c(1, 2),
  stringsAsFactors = FALSE
)

tweets %>%
  gt_edges(text, screen_name, status_id) %>%
  gt_nodes() %>%
  gt_graph() -> net
```

gt_nodes *Nodes*

Description

Get nodes from a graphTweets object.

Usage

```
gt_nodes(gt, meta = FALSE)
```

Arguments

gt	An object of class graphTweets as returned by gt_edges.
meta	Set to TRUE to add meta data to nodes.

Value

An object of class graphTweets, adds nodes.

Examples

```
# simulate dataset
tweets <- data.frame(
  text = c("I tweet @you about @him",
           "I tweet @me about @you"),
  screen_name = c("me", "him"),
  retweet_count = c(19, 5),
  status_id = c(1, 2),
  stringsAsFactors = FALSE
)

tweets %>%
  gt_edges(text, screen_name, status_id) %>%
  gt_nodes() -> net
```

---

gt_save *Save*

Description

Save the graph to file.

Usage

```
gt_save(gt, file = "graphTweets.graphml", format = "graphml", ...)
```

Arguments

gt	An object of class graphTweets as returned by gt_edges.
file	File name including extension (format).
format	Format file format, see write_graph.
...	Any other argument to pass to write_graph.

Examples

```
## Not run:
# simulate dataset
tweets <- data.frame(
  text = c("I tweet @you about @him",
           "I tweet @me about @you"),
  screen_name = c("me", "him"),
  retweet_count = c(19, 5),
  created_at = c(Sys.time(), Sys.time() + 15000),
  status_id = c(1, 2),
  stringsAsFactors = FALSE
)

tweets %>%
  gt_edges(text, screen_name, "created_at") %>%
  gt_nodes(TRUE) %>%
  gt_dyn() %>%
  gt_save()

## End(Not run)
```

Index