

Package ‘graphTweets’

February 14, 2019

Type Package

Title Visualise Twitter Interactions

Version 0.5.1

Date 2019-02-12

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

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Depends R (>= 3.2.0)

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

RoxygenNote 6.1.1

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

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

Suggests testthat

NeedsCompilation no

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Repository CRAN

Date/Publication 2019-02-14 09:20:24 UTC

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`gt_collect`*Collect*

Description

Collect

Usage`gt_collect(gt)`**Arguments**`gt` An object of class `graphTweets` as returned by `gt_edges` and `gt_nodes`.**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` and `gt_nodes`.
`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 and @her",
           "I tweet @me about @you"),
  screen_name = c("me", "him"),
  created_at = c(Sys.time(), Sys.time() + 10000),
  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, source, target, ..., tl = TRUE)

gt_edges_bind(gt, source, target, ..., tl = TRUE)

gt_co_edges(data, col, tl = TRUE)

gt_co_edges_bind(gt, col, tl = TRUE)
```

Arguments

`data` `Data.frame` of tweets, usually returned by the `rtweet` package.
`source` Author of tweets.
`target` Edges target.

| | |
|-----|---|
| ... | any other column name, see examples. |
| tl | Set to TRUE to convert hashtags to lower case. |
| gt | An object of class graphTweets as returned by gt_edges and gt_nodes . |
| col | Column containing co-mentions. |

gt_edges_ *Deprecated Functions*

Description

These functions are deprecated, see [gt_edges](#) and [gt_co_edges](#).

Usage

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

```
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 | Unique id. |
| ... | any other column name, see examples. |
| hashtags | Column containing co-mentions. |
| tl | Set to TRUE to convert hashtags to lower case. |

gt_edges_from_text *Edges from text*

Description

Get edges from data.frame of tweets.

Usage

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

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

Arguments

| | |
|--------|---|
| data | Data.frame of tweets, usually returned by the rtweet package. |
| id | tweets unique id. |
| source | Author of tweets. |
| tweets | Column containing tweets. |
| ... | any other column name. |

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_co_edges` - Build networks of users to hashtags.

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_from_text(status_id, screen_name, text)
```

 gt_graph

Graph

Description

Build `igraph` object.

Usage

```
gt_graph(gt)
```

Arguments

gt An object of class graphTweets as returned by [gt_edges](#) and [gt_nodes](#).

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](#) and [gt_nodes](#).
 meta Set to TRUE to add meta data to nodes.

Value

An object of class graphTweets.

`gt_save`*Save*

Description

Save the graph to file.

Usage

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

Arguments

| | |
|---------------------|--|
| <code>gt</code> | An object of class <code>graphTweets</code> as returned by gt_edges and gt_nodes . |
| <code>file</code> | File name including extension (format). |
| <code>format</code> | Format file format, see write_graph . |
| <code>...</code> | 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)
```

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