

# Package ‘graphTweets’

September 28, 2018

**Type** Package

**Title** Visualise Twitter Interactions

**Version** 0.5.0

**Date** 2018-08-25

**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** 6.1.0

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

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

**Suggests** testthat, htmltools

**Encoding** UTF-8

**NeedsCompilation** no

**Author** John Coene [aut, cre]

**Maintainer** John Coene <jcoenep@gmail.com>

**Repository** CRAN

**Date/Publication** 2018-08-25 17:02:18 UTC

## R topics documented:

gt_collect . . . . .	2
gt_dyn . . . . .	2
gt_edges . . . . .	3
gt_edges_ . . . . .	4
gt_edges_from_text . . . . .	4
gt_graph . . . . .	5
gt_nodes . . . . .	6
gt_save . . . . .	6
<b>Index</b>	<b>8</b>

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	<i>Edges</i>
----------	--------------

---

**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 <code>rtweet</code> 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 <code>graphTweets</code> as returned by <a href="#">gt_edges</a> and <a href="#">gt_nodes</a> .
col	Column containing co-mentions.

---

gt_edges_	<i>Deprecated Functions</i>
-----------	-----------------------------

---

**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 <code>rtweet</code> 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	<i>Edges from text</i>
--------------------	------------------------

---

**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 <code>rtweet</code> 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	<i>Nodes</i>
----------	--------------

---

## Description

Get nodes from a graphTweets object.

## Usage

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

## Arguments

gt	An object of class graphTweets as returned by <a href="#">gt_edges</a> and <a href="#">gt_nodes</a> .
meta	Set to TRUE to add meta data to nodes.

## Value

An object of class graphTweets.

---

gt_save	<i>Save</i>
---------	-------------

---

## 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 <a href="#">gt_edges</a> and <a href="#">gt_nodes</a> .
file	File name including extension (format).
format	Format file format, see <a href="#">write_graph</a> .
...	Any other argument to pass to <a href="#">write_graph</a> .

## 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

gt\_co\_edges, [4](#)  
gt\_co\_edges(gt\_edges), [3](#)  
gt\_co\_edges\_bind(gt\_edges), [3](#)  
gt\_collect, [2](#)  
gt\_dyn, [2](#)  
gt\_edges, [2](#), [3](#), [3](#), [4–7](#)  
gt\_edges\_, [4](#)  
gt\_edges\_bind(gt\_edges), [3](#)  
gt\_edges\_from\_text, [4](#)  
gt\_edges\_from\_text\_  
    (gt\_edges\_from\_text), [4](#)  
gt\_edges\_hashes(gt\_edges\_), [4](#)  
gt\_edges\_hashes\_(gt\_edges\_), [4](#)  
gt\_graph, [5](#)  
gt\_nodes, [2](#), [3](#), [5](#), [6](#), [6](#), [7](#)  
gt\_save, [6](#)  
  
tibble, [2](#)  
tolower, [5](#)  
  
write\_graph, [7](#)