

# Package ‘graphTweets’

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**Type** Package

**Title** Visualise Twitter Interactions

**Version** 0.5.2

**Date** 2019-07-09

**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

**Encoding** UTF-8

**NeedsCompilation** no

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**Repository** CRAN

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gt_collect	<i>Collect</i>
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## 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
```

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`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_preproc_edges(gt, func)

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 source and target to lower case (recommended).
gt	An object of class <code>graphTweets</code> as returned by <code>gt_edges</code> and <code>gt_nodes</code> .
func	Function to pre-process edges, takes edges as constructed by <code>gt_edges</code> , includes columns named source target and others passed to the three dot construct.
col	Column containing co-mentions.

**Functions**

- `gt_edges`: Build edges
- `gt_preproc_edges`: Pre-process edges
- `gt_edges_bind`: Append edges

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`gt_edges_from_text`     *Edges from text*

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**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)
```

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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)
```

```
gt_add_meta(gt, name, source, target)
```

**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 using [users\\_data](#).

name Name of column to create.

source, target Name of column too apply to edge source and target.

**Value**

An object of class graphTweets.

**Functions**

- `gt_nodes`: Builds nodes
- `gt_add_meta`: Add meta data to the nodes. The meta data is taken from the edges.

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<code>gt_save</code>	<i>Save</i>
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**Description**

Save the graph to file.

**Usage**

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

**Arguments**

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

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