

Package ‘grand’

July 23, 2025

Title Guidelines for Reporting About Network Data

Version 0.9.1

Description Interactively applies the Guidelines for Reporting About Network Data (GRAND) to an 'igraph' object, and generates a uniform narrative or tabular description of the object.

License GPL-3

Encoding UTF-8

RoxygenNote 7.3.1

Depends R (>= 2.10)

Imports igraph, methods, utils

Suggests knitr, rmarkdown

URL <https://github.com/zpneal/grand>

BugReports <https://github.com/zpneal/grand/issues>

NeedsCompilation no

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Contents

grand	2
grand_manual	3
Index	5

grand

Applies Guidelines for Reporting About Network Data

Description

The `grand` function interactively adds information about a network and generates a narrative summary of the network following the Guidelines for Reporting About Network Data.

Usage

```
grand(G, mode, help = FALSE, verbose = FALSE)
```

Arguments

<code>G</code>	An igraph object, with weights/signs (if present) stored in <code>E(G)\$weight</code>
<code>mode</code>	string: "interview" to interactively add information, or "statement" to generate a summary statement
<code>help</code>	boolean: Should interview prompts be accompanied by explanations and examples?
<code>verbose</code>	boolean: Should an extended summary be generated?

Value

An [igraph](#) object if `mode == "interview"`, or a string if `mode == "statement"`

Examples

```
G <- igraph::make_graph("Zachary") #An example network

#G <- grand(G, mode = "interview") #Interactively enter information...

G <- grand_manual(G, #...or manually enter information
  name = "Zachary Karate Club",
  doi = "10.1086/jar.33.4.3629752",
  url = "https://networks.skewed.de/net/karate",
  vertex1 = "People",
  positive = "Friendship",
  mode = "Observation",
  year = "1977")

grand(G, mode = "statement") #Display summary statement
```

grand_manual	<i>Manually add Guidelines for Reporting About Network Data (GRAND) information to an igraph object</i>
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Description

The `grand_manual` function allows a user to manually and non-interactively add GRAND information to an [igraph](#) object. Normally this information should be added interactively using `grand(mode = "interview")`.

Usage

```
grand_manual(
  G,
  name = NA,
  doi = NA,
  url = NA,
  vertex1 = NA,
  vertex2 = NA,
  positive = NA,
  negative = NA,
  weight = NA,
  level = NA,
  mode = NA,
  year = NA
)
```

Arguments

<code>G</code>	An igraph object, with weights/signs (if present) stored in <code>E(G)\$weight</code>
<code>name</code>	string: Name of the network (e.g., Zachary Karate Club)
<code>doi</code>	string: DOI associated with the data (e.g., 10.1086/jar.33.4.3629752)
<code>url</code>	string: Link to data (e.g., https://networks.skewed.de/net/karate)
<code>vertex1</code>	string: Entity represented by nodes in a unipartite network, or by FALSE nodes in a bipartite network (e.g., people)
<code>vertex2</code>	string: Entity represented by TRUE nodes in a bipartite network
<code>positive</code>	string: Relationship represented by (positive) edges (e.g., friendship)
<code>negative</code>	string: Relationship represented by negative edges, if present
<code>weight</code>	string: What the edge weights represent (e.g., frequency, intensity, multiplexity)
<code>level</code>	string: Scale on which edge weights are measured (e.g., continuous, count, ordinal, categorical)
<code>mode</code>	string: Mode of data collection (e.g., survey, interview, sensor, observation, archival, simulation)
<code>year</code>	numeric: Year in which data was collected (e.g., 1977)

Value

An [igraph](#) object

Examples

```
G <- igraph::make_graph("Zachary") #An example network

G <- grand_manual(G, #Manually enter information
  name = "Zachary Karate Club",
  doi = "10.1086/jar.33.4.3629752",
  url = "https://networks.skewed.de/net/karate",
  vertex1 = "People",
  positive = "Friendship",
  mode = "Observation",
  year = "1977")

grand(G, mode = "statement") #Display summary statement
```

Index

grand, [2](#)
grand_manual, [3](#)
igraph, [2–4](#)