Package ‘NetData’

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SNA R labs.
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MagAct96-98 - Extracurricular affiliation data by year (1996-1998)

Description

For each “magact” data frame, there are IDs, gender attributes (1 = male, 2 = female, 3 = unknown, . = missing), GRD is grade level (13 = 12th grade in 1996, 12 = 11th grader 1996, 11 = 10th grader in 1996, 10 = 9th grader in 1996, and so on for 1996. Note, these are consistent over the entire data set (1997 and 1998) and reflect age. "." and " " are missing), RCE is racial group membership (5 = native American, 4 = white, 3 = black, 2 = Asian, 1 = Hispanic, "." and " " are missing).

MagAttrib consists of the attribute subset of the above provided in a separate data frame for convenience.

The other columns represent club affiliations in that year.

IDs are consistent across years.

This network data set was created for use with Dan McFarland’s network analysis labs. Labs are available at:

~\url{http://sna.stanford.edu/rlabs.php}

Larger comprehensive data set publicly available, contact Daniel A. McFarland for details.

Usage

'\texttt{studentnets.mgAct96-98}'

Format

Magact data frames consist of an adjacency matrix + individual-level attributes, while magattrib

data frame consists exclusively of attributes

Source

McFarland Classroom Study

References


Study of Student Engagement and Resistance in High Schools. University of Chicago, Department

of Sociology

This research/data collection was generously supported by NSF Award no. 0624134.

Examples

# Must include quotes around data set name because of the "-" sign
data('studentnets.MagAct96-98')

## Examples available in Lab 5 at:

Description

This data consists of a sociometric survey (dyad-level) and various individual (node-level) attributes.

Dyadic features include: sem1friend - sociometric friendship survey, semester 1 (2 = best friend, 1 = friend, 0 = not friend) sem2friend - sociometric friendship survey, semester 2 (2 = best friend, 1 = friend, 0 = not friend) sem1_wtd_dicht_seat - sem1_wtd_dicht_seat records adjacent seating

Node-level features include: std_id - links to ego_id and alter_id gender - gender (1 = male, 2 = female) grade - grade (all 10) race - race (4 = white, 3 = black, 2 = Asian, 1 = Hispanic) income - per capita income from the 1990 census (by city block of student’s residence)

This network data set was created for use with Dan McFarland's network analysis labs. Labs are available at:

~http://sna.stanford.edu/rlabs.php

Larger comprehensive data set publicly available, contact Daniel A. McFarland for details.

Usage

studentnets.ergm173

Format

data frames in edgelist format for each dyadic feature, one data frame for all node-level features

Source

McFarland Classroom Study

References


Examples

data(studentnets.ergm173)

## Examples available in Lab 8 at:

## http://sna.stanford.edu/lab.php?l=8
Description

Krackhardt asked employees at Silicon Systems, a high-tech firm that was undergoing a union certification campaign, to whom they reported, with whom they were friends, and to whom they go to for advice. These relationships provide insight into the firm’s embedded social structure, which many believe plays a strong role in shaping opinion and opinion change.

In a typical unionization campaign, non-management workers submit union authorization cards, the NLRB grants the union’s request, notifies management, and the workers hold an election in two months time. Management typically tries to convince workers that unions are bad and that unions only want dues, while pro-union workers try to convince others to organize for a stronger bargaining position.

Krackhardt finds that the friendship network is key to understanding the strong ties that shape collective decision-making. He states: "Someone, even an outsider, who understands the structure of philos (friendship) ties within an organization will be much more able to anticipate political resistance and facilitate change."

Usage

kracknets

Format

krack_full_data_frame contains an edgelist capturing advice, friendship, and authority (reports to) ties between workers.

Source

http://www.stanford.edu/~messing/IntroRforSNA.html (ported from UCINet)

References


Examples

data(kracknets, package = "NetData")
## Examples available in Lab 1 & 2 at:
## http://sna.stanford.edu/lab.php?1=1
## http://sna.stanford.edu/lab.php?1=2
Description

This data consists of a sociometric friendship survey (2 = best friend, 1 = friend, 0 = not friend), SSL is social interactions per hour. TSL is task interactions per hour.

This network data set was created for use with Dan McFarland’s network analysis labs. Labs are available at:

~\url{http://sna.stanford.edu/rlabs.php}

Larger comprehensive data set publicly available, contact Daniel A. McFarland for details.

Usage

studentnets.M182

Format

‘friend_df’ contains friendship ties, ‘social_df’ contains social ties, ‘task_df’ contains ties based on common task, ‘m182_full_data_frame’ contains all three.

Source

McFarland Classroom Study

References


Examples

data(studentnets.M182)
## Examples available in Lab 3 and 6 at:
Description

This data consists of a sociometric friendship survey (2 = best friend, 1 = friend, 0 = not friend),
along with gender and race homophily, who sits next to whom (2 = faces, 1 = behind, 0 = not
adjacent), SSL is social interactions per hour. TSL is task interactions per hour.

This is for two semesters, 1 and 2.

This network data set was created for use with Dan McFarland’s network analysis labs. Labs are
available at:

~\url{http://sna.stanford.edu/rlabs.php}

Larger comprehensive data set publicly available, contact Daniel A. McFarland for details.

Usage

studentnets.ergm173

Format

Numerous adjacency matrices encapsulated in dataframes

Source

McFarland Classroom Study

References


This research/data collection was generously supported by NSF Award no. 0624134.

Examples

data(studentnets.mrqap173)

## Examples available in Lab 7 at:
Description

This data consists of a sociometric friendship survey (2 = best friend, 1 = friend, 0 = not friend),
along with gender and race homophily; who sits next to whom (2 = faces, 1 = behind, 0 = not
adjacent); SSL is social interactions per hour. TSL is task interactions per hour.

This is for two semesters, 1 and 2.

This network data set was created for use with Dan McFarland’s network analysis labs. Labs are
available at:

~\url{http://sna.stanford.edu/rlabs.php}

Larger comprehensive data set publicly available, contact Daniel A. McFarland for details.

Usage

studentnets.ergm182

Format

Numerous adjacency matrices encapsulated in dataframes

Source

McFarland Classroom Study

References

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This research/data collection was generously supported by NSF Award no. 0624134.

Examples

data(studentnets.mrqap182)

## Examples available in Lab 7 at:

**NetData**  
*Data for Social Network Analysis labs*

**Description**

Various Network data sets that can be used for Dan McFarland's network analysis labs. Labs are available at:


Larger comprehensive data sets are publicly available, contact Daniel A. McFarland for details.

**Usage**

NetData

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**References**


**Examples**

```r
data(kracknets, package = "NetData")
data('studentnets.M182', package = "NetData")
data('studentnets.S641', package = "NetData")
data('studentnets.magact96.97.98', package = "NetData")
data('studentnets.m173', package="NetData")
data('studentnets.ergm173', package = "NetData")
```

**peerinfl**  
*Peerinfl - High school data for 36 classrooms, 25 have 2 semesters*

**Description**

The 'attitudes' data frame represents results from individual-level surveys that students filled out about the class. std_id - student id number sem_id - semester 1 or 2 cls_id - classroom id number tlks - how often do you socialize? (1 = never, 4 = often) tlkt - When you talk, how often do you discuss classroom work? (1 = never, 4 = often) like_c - How much do you like the class? (Strongly dislike = 1, strongly dislike = 4) imp How important is this course for your future? (1 = not at all, 4 = very important) egrd - What grade do you expect? (F = 0, D = 1, ..., A = 4) jgrd - Is this grade or better or worse than usual? (1 = better, -1 = worse, 0 = same) sub - How much do you like the
course subject? (1 = strongly dislike, 4 = like it very much) tot - How much do you like way the
course it taught? (1 = strongly dislike, 4 = like it very much) frn - How interesting do you find your
friends in this class? (1 = not at all, 4 = very interesting) cmt - How much do you like the teacher? (1 =
strongly dislike, 4 = like very much) voln - How often do you voluntarily participate? (1 = less than
once per week, 2 = once per week, 3 = everyday, 4 = several times per day, 5 = many times per day)
call - how often does the teacher call on you? (1 = less than once per week, 2 = once per week, 3 =
everyday, 4 = several times per day, 5 = many times per day) misb - How often do you misbehave?
(1 = less than once per week, 2 = once per week, 3 = everyday, 4 = several times per day, 5 = many
times per day) sanc - How often does a teacher catch you misbehaving? (1 = less than once per
week, 2 = once per week, 3 = everyday, 4 = several times per day, 5 = many times per day) sfch
- How friendly are you toward the teacher? ( -2 = not at all, 2 = very) tfstd - How often does the
teacher call on you to participate? (1 = less than once per week, 2 = once per week, 3 = everyday,
4 = several times per day, 5 = many times per day) tros - How friendly is the teacher toward other
students? ( -2 = not at all, 2 = very) chal - How challenging is this class for you? (1 very easy, 4 =
very challenging) prev - Have you had this teacher before? (1 = yes, 0 = no)

sem1, edgelist describing dyad level data from network survey (free form list for top 5 friends)
std_id - student id alter_id - alter id timea - How long have you been friends? (in years)
Where do you usually see this friend? ona - In this class only (1 = yes, 0 = no) oca - In other classes
(1 = yes, 0 = no) acta - In school activities (1 = yes, 0 = np) nacta - Non-school activities (1 = yes,
0 = no) wrka - At work (1 = yes, 2 = no) nbra - Neighborhood (1 = yes, 2 = no) otha - Other (1 =
yes, 2 = no)
wkna - Do you see this friend on weekends? (1 = yes, 2 = no) bfa - Best friend? (1 = yes, 2 = no)
lva - Boyfriend/girlfriend? (1 = yes, 2 = no) cls_id - classroom id

sem2, edgelist describing dyad level data from network survey (for all students in the class) std_id
- Student id alter_id - Alter id cls_id - Classroom id relationship - For each person in the class,
list your relationship ( -1 don’t like, 0 = don’t know, 1 = liked acquaintance, 2 = friend, 3 = close
friend) socializing - How often is this student socializing with other students? (0 = never, 3 =
always) on_task how often is this student on task? (0 = never, 3 = always) pred_grade - what kind
of grade will the student likely receive? (F = 0, D = 1, ..., A = 4)

This network data set was created for use with Dan McFarland’s network analysis labs. Labs are
available at:

~\url{http://sna.stanford.edu/rlabs.php}

Larger comprehensive data set publicly available, contact Daniel A. McFarland for details.

Usage

'studentnets.peerinfl'

Format

sem1 and sem2 are dataframes in edgelist format, 'attitudes' represents individual (node-level) at-
tributes in dataframe format

Source

McFarland Classroom Study
References

This research/data collection was generously supported by NSF Award no. 0624134.

Examples

data('studentnets.peerinfl')
## Examples available in Lab 7 at:

Description

For every dyad, social_tie is social interactions per hour and task_tie is task interactions per hour.
This network data set was created for use with Dan McFarland’s network analysis labs. Labs are available at:
~\url{http://sna.stanford.edu/labs.php}
Larger comprehensive data set publicly available, contact Daniel A. McFarland for details.

Usage

studentnets.ergm182

Format

Three dataframes in edgelist format, one for social interactions, one for task interactions, and one that includes both.

Source

McFarland Classroom Study

References

This research/data collection was generously supported by NSF Award no. 0624134.

Examples

data(studentnets.S641)
## Examples available in Lab 4 at:
## http://sna.stanford.edu/lab.php?l=4
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