Package 'FertNet'

February 5, 2024

Type Package

Title Process Data from the Social Networks and Fertility Survey

Version 0.1.2

Description Processes data from The Social Networks and Fertility Survey, downloaded from <https://dataarchive.lissdata.nl>, including correcting respondent errors and transforming network data into network objects to facilitate analyses and visualisation.

Encoding UTF-8

RoxygenNote 7.2.3

Imports haven (>= 2.5.1)

Suggests testthat (>= 3.0.0), tidygraph (>= 1.2.2)

Config/testthat/edition 3

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URL <https://github.com/gertstulp/FertNet>

BugReports <https://github.com/gertstulp/FertNet/issues>

NeedsCompilation no

Author Gert Stulp [aut, cre] (<https://orcid.org/0000-0003-0173-5554>)

Maintainer Gert Stulp <g.stulp@rug.nl>

Repository CRAN

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R topics documented:

change_column_types	*Change column types for social networks and fertility data (LISS: wj18a_EN_1.0p.sav)*

Description

Change column types for social networks and fertility data (LISS: wj18a_EN_1.0p.sav)

Usage

```
change_column_types(data)
```

Arguments

data   Tibble which is the result of `translate(read_data())`

Value

Tibble with corrected column types and updated labels

Examples

```
read_data() |> translate() |> change_column_types()
```

create_alter_attr	*Create dataframe of alter attributes based on social networks and fertility data (LISS: wj18a_EN_1.0p.sav)*

Description

Create dataframe of alter attributes based on social networks and fertility data (LISS: wj18a_EN_1.0p.sav)

Usage

```
create_alter_attr(data)
```

Arguments

data   Tibble which is the result of create_relation_labels(fix_errors(change_column_types(translat

Value

Tibble with variable `alter_attr` which includes a dataframe with alter attributes for each respondent

Examples

```
data <- read_data() |> translate() |>
change_column_types() |> fix_errors() |> create_relation_labels()
create_alter_attr(data[1, ])
```

---

create_edgelist   *Create dataframe of edgelist based on social networks and fertility*
                         data (LISS: wj18a_EN_1.0p.sav)

Description

Create dataframe of edgelist based on social networks and fertility data (LISS: wj18a_EN_1.0p.sav)

Usage

```
create_edgelist(data = NULL, vars = NULL)
```

Arguments

data   Tibble which is the result of create_relation_labels(fix_errors(change_column_types(translat

vars   Vector with variable names of 25 variables describing alter-alter-ties

Value

Tibble with variable `edgelist` which includes a dataframe with edgelist for each respondent

Examples

```
data <- read_data() |> translate() |> change_column_types() |>
fix_errors() |> create_relation_labels()
create_edgelist(data[1, vars_alter_ties])
```

---

create_nw	*Create dataframes of alter attributes and edgelists and store them in list-columns for social networks and fertility data (LISS: wj18a_EN_1.0p.sav)*

Description

Create dataframes of alter attributes and edgelists and store them in list-columns for social networks and fertility data (LISS: wj18a_EN_1.0p.sav)

Usage

```
create_nw(data)
```

Arguments

data	Tibble which is the result of `create_relation_labels(fix_errors(change_column_types(translat`

Value

Tibble with list-columns containing alter attributes and edgelists

Examples

```
read_data() |> translate() |> change_column_types() |>
fix_errors() |> create_relation_labels() |> create_nw()
```

---

create_relation_labels	
	Produces corrected relationship labels for social networks and fertility data (LISS: wj18a_EN_1.0p.sav)

Description

Produces corrected relationship labels for social networks and fertility data (LISS: wj18a_EN_1.0p.sav)

Usage

```
create_relation_labels(data)
```

Arguments

data	Tibble which is the result of `fix_errors(change_column_types(translate(read_data())))`

Value

Tibble in which data on relationship labels are corrected and improved

Examples

```
read_data() |> translate() |> change_column_types() |>
fix_errors() |> create_relation_labels()
```

---

create_tidygraph	*Create tidygraph objects from social networks and fertility data (LISS: wj18a_EN_1.0p.sav)*

Description

Create tidygraph objects from social networks and fertility data (LISS: wj18a_EN_1.0p.sav)

Usage

```
create_tidygraph(data)
```

Arguments

data   Tibble which is the result of `produce_data()`

Value

Tibble with variable `tidygraph` that includes tidygraph objects for all respondents

Examples

```
produce_data() |> create_tidygraph()
```

| fix_errors | *Fixes reporting errors and inconsistencies in social networks and fertility data (LISS: wj18a_EN_1.0p.sav)* |

Description

Fixes reporting errors and inconsistencies in social networks and fertility data (LISS: wj18a_EN_1.0p.sav)

Usage

```
fix_errors(data)
```

Arguments

data	Tibble which is the result of `change_column_types(translate(read_data())`

Value

Tibble in which data errors are fixed and data worries are flagged

Examples

```
read_data() |> translate() |> change_column_types() |> fix_errors()
```

| get_background_vars | *Get respondent background variables (LISS: avars_201802_EN_1.0p.sav) for social networks and fertility data (LISS: wj18a_EN_1.0p.sav)* |

Description

Get respondent background variables (LISS: avars_201802_EN_1.0p.sav) for social networks and fertility data (LISS: wj18a_EN_1.0p.sav)

Usage

```
get_background_vars(file = "avars_201802_EN_1.0p.sav")
```

Arguments

file	Path to file avars_201802_EN_1.0p.sav (or renamed variant)

Value

Tibble of data with background variables for social networks and fertility data

Examples

```
get_background_vars()
```

---

produce_data	*Produces tidy dataset of social networks and fertility data (LISS: wj18a_EN_1.0p.sav) with network data as listcolumns*

Description

Produces tidy dataset of social networks and fertility data (LISS: wj18a_EN_1.0p.sav) with network data as listcolumns

Usage

```
produce_data(
  tidygraph_col = FALSE,
  background_vars = FALSE,
  remove_timing_vars = TRUE
)
```

Arguments

tidygraph_col   Should a variable `tidygraph` be created that includes tidygraph object for each respondent? (default: FALSE)

background_vars

> Should respondent background variables be added? Requires presence of avars_201802_EN_1.0p.sav (default: FALSE)

remove_timing_vars

> Should variables on timing of survey responses be removed? (default: TRUE)

Value

Tibble of social networks and fertility data (LISS: wj18a_EN_1.0p.sav) with network data as listcolumns

Examples

```
produce_data()
produce_data(TRUE, TRUE, FALSE)
```

---

read_data   *Reads-in   social   networks   and   fertility   data   (LISS:
                              wj18a_EN_1.0p.sav)*

Description

Reads-in social networks and fertility data (LISS: wj18a_EN_1.0p.sav)

Usage

```
read_data(file = "wj18a_EN_1.0p.sav")
```

Arguments

file   Path to file wj18a_EN_1.0p.sav (or renamed variant)

Value

Tibble of social networks and fertility data

Examples

```
read_data("wj18a_EN_1.0p.sav")
```

---

remove_timing_vars   *Remove variables related to timing of giving answers in survey*

Description

Remove variables related to timing of giving answers in survey

Usage

```
remove_timing_vars(data)
```

Arguments

data   Tibble sent within function produce_data()

Value

Tibble without timing variables

translate	*Translate LISS variable names of social networks and fertility data (LISS: wj18a_EN_1.0p.sav) into sensible English names*

Description

Translate LISS variable names of social networks and fertility data (LISS: wj18a_EN_1.0p.sav) into sensible English names

Usage

```
translate(data)
```

Arguments

data   Tibble which is the result of read_data()

Value

Tibble with sensible column names

Examples

```
read_data() |> translate()
```

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