Package 'closeloop'

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Type Package

Title Integrate Single-Arm Observational Data in Network Meta Analysis

Version 0.1.0

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Maintainer Shubhram Pandey <shubhram1992@gmail.com>

Description Calculate the distance between single-arm observational studies using covariate information to remove heterogeneity in Network Meta-Analysis (NMA) of randomized clinical trials. Facilitate the inclusion of observational data in NMA, enhancing the comprehensiveness and robustness of comparative effectiveness research. Schmitz (2018) <doi:10.1186/s12874-018-0509-7>.

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Encoding UTF-8

LazyData true

Imports combinat

RoxygenNote 7.3.1

Depends R (>= 3.5.0)

Suggests knitr, rmarkdown

VignetteBuilder knitr

URL https://github.com/heorlytics/closeloop

NeedsCompilation no

Author Supreet Kaur [ctb],
Akanksha Sharma [ctb],
Shubhram Pandey [aut, cre]

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Contents

`calc_dist` *Title To calculate distance between two studies using covariate information*

Description

Title To calculate distance between two studies using covariate information

Usage

```
calc_dist(df, col_names, Study = "Study", Treat = "Treatment", weights, digits)
```

Arguments

`df`	A data frame consists of columns namely "Study", "Treatment", and at least one covariate.
`col_names`	A vector of column names specifying covariate names.
`Study`	A column name in a data frame named as "Study" specifying study names.
`Treat`	A column name in a data frame named as "Treatment" specifying treatment names.
`weights`	A variable in which the results of specify_weight() function was stored.
`digits`	A numeric value indicating the number of decimal places in the Distance calculated.

Value

Data frame

Author(s)

Shubhram Pandey <shubhram1992@gmail.com>

Examples

```
attach(exampleData)
var = c("Male","Age")
weights = specify_weight(var, weights = c(0.5,0.5))
weights
dist = calc_dist(df = exampleData, col_names = var, weights = weights,digits = 4)
dist
```

check_data *Function to check if all values are numeric in data*

Description

Function to check if all values are numeric in data

Usage

```
check_data(df, col_names = NULL)
```

Arguments

df	A data frame contains columns that represent covariates
col_names	A numeric vector of covariates that can be binary or continuous

Value

logical

Author(s)

Shubhram Pandey <shubhram1992@gmail.com>

Examples

```
attach(exampleData)
var = c("Age","Male")
x = check_data(df = exampleData, col_names = var)
x
```

exampleData *This is a simulated data*

Description

Data were extracted from the studies included.

Usage

```
exampleData
```

Format

A data frame with with the 4 following variables (columns).

Study This character vector represents number of the study.

Male This vector represents the proportion of males.

Age This vector represents the average age in each study.

Treatment This vector represents the treatment. ...

Details

A simulated data were created to run examples.

Author(s)

Shubhram Pandey <shubhram.pandey@heorlytics.com>

`is_prop` *Function to check if columns are proportions*

Description

Function to check if columns are proportions

Usage

```
is_prop(df, col_names)
```

Arguments

`df`	a data frame to be checked
`col_names`	column names to be checked

Value

list

Author(s)

Shubhram Pandey <shubhram1992@gmail.com>

Examples

```
#' attach(exampleData)
result <- is_prop(exampleData,c("Male","Age"))
result
```

specify_weight *Title specify_weight*

Description

Title specify_weight

Usage

```
specify_weight(var, weights)
```

Arguments

var	Variables for which weights can be assigned
weights	weights in same sequence as variables

Value

list

Author(s)

Shubhram Pandey <shubhram1992@gmail.com>

Examples

```
var = c("Male","Age")
weights = specify_weight(var, weights = c(0.5,0.5))
weights
```

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