Package 'radiant.multivariate'

April 5, 2018

```
Type Package
Title Multivariate Menu for Radiant: Business Analytics using R and Shiny
Version 0.9.2
Date 2018-3-30
Description The Radiant Multivariate menu includes interfaces for perceptual
      mapping, factor analysis, cluster analysis, and conjoint analysis. The
      application extends the functionality in radiant.data.
Depends R (>= 3.3.0),
      radiant.data (>= 0.9.2)
Imports radiant.model (>= 0.9.2),
      shiny (>= 1.0.5),
      dplyr (>= 0.7.4),
      rlang (>= 0.2.0),
      ggplot2 (>= 2.2.1),
      gridExtra (>= 2.0.0),
      scales (>= 0.4.0),
      magrittr (>= 1.5),
      psych (>= 1.7.3.21),
      GPArotation (>= 2014.11-1),
      car (>= 2.1.1),
      MASS (>= 7.3),
      wordcloud (>= 2.5),
      import (>= 1.1.0),
      Gmedian (>= 1.2.3),
      pryr (>= 0.1.2),
      rstudioapi (>= 0.7),
      methods
Suggests testthat (>= 2.0.0)
URL https://github.com/radiant-rstats/radiant.multivariate, https:
      //radiant-rstats.github.io/docs
BugReports https://github.com/radiant-rstats/radiant.multivariate/issues
License AGPL-3 | file LICENSE
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carpet

Carpet cleaners

Description

Carpet cleaners

Usage

data(carpet)

Format

A data frame with 18 rows and 5 variables

Details

Rankings reflect the evaluation of 18 alternative carpet cleaners by one respondent. Description provided in attr(carpet, "description")

city

City distances

Description

City distances

Usage

data(city)

Format

A data frame with 45 rows and 3 variables

Details

Distance in miles between nine cities in the USA. The dataset is used to illustrate multi-dimensional scaling (MDS). Description provided in attr(city, "description")

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city2

City distances 2

Description

City distances 2

Usage

```
data(city2)
```

Format

A data frame with 78 rows and 3 variables

Details

Distance in miles between 12 cities in the USA. The dataset is used to illustrate multi-dimensional scaling (MDS). Description provided in attr(city2, "description")

clean_loadings

Sort and clean loadings

Description

Sort and clean loadings

Usage

```
clean_loadings(floadings, cutoff = 0, fsort = FALSE, dec = 8, repl = NA)
```

Arguments

floadings Data frame with loadings

cutoff Show only loadings with (absolute) values above cutoff (default = 0)

fsort Sort factor loadings

dec Number of decimals to show

repl Replace loadings below the cutoff by NA (or "")

Details

See https://radiant-rstats.github.io/docs/multivariate/full_factor.html for an example in Radiant

```
result <- full_factor("diamonds",c("price","carat","table","x","y"))
clean_loadings(result$floadings, TRUE, .5, 2)</pre>
```

computer 5

Description

Perceptions of computer (re)sellers

Usage

```
data(computer)
```

Format

A data frame with 5 rows and 8 variables

Details

Perceptions of computer (re)sellers. The dataset is used to illustrate perceptual maps. Description provided in attr(computer, "description")

Conjoint analysis

Description

Conjoint analysis

Usage

```
conjoint(dataset, rvar, evar, int = "", by = "none", reverse = FALSE,
  data_filter = "")
```

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an r_data list from Radiant
rvar	The response variable (e.g., profile ratings)
evar	Explanatory variables in the regression
int	Interaction terms to include in the model
by	Variable to group data by before analysis (e.g., a respondent id)
reverse	Reverse the values of the response variable ('rvar')
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

Details

See $https://radiant-rstats.github.io/docs/multivariate/conjoint.html \ for \ an \ example in \ Radiant$

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Value

A list with all variables defined in the function as an object of class conjoint

See Also

```
summary.conjoint to summarize results
plot.conjoint to plot results
```

Examples

```
result <- conjoint("mp3", rvar = "Rating", evar = "Memory:Shape")
result <- mp3 %>% conjoint(rvar = "Rating", evar = "Memory:Shape")
```

full_factor

Factor analysis (PCA)

Description

Factor analysis (PCA)

Usage

```
full_factor(dataset, vars, method = "PCA", nr_fact = 1,
  rotation = "varimax", data_filter = "")
```

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an r_data list from Radiant
vars	Variables to include in the analysis
method	Factor extraction method to use
nr_fact	Number of factors to extract
rotation	Apply varimax rotation or no rotation ("varimax" or "none")
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

Details

See $https://radiant-rstats.github.io/docs/multivariate/full_factor.html \ for \ an \ example in \ Radiant$

Value

A list with all variables defined in the function as an object of class full_factor

See Also

```
summary.full_factor to summarize results
plot.full_factor to plot results
```

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Examples

```
result <- full_factor("diamonds",c("price","carat","table","x","y"))
result <- full_factor("diamonds",c("price","carat","table","x","y"), method = "maxlik")
result <- diamonds %>% full_factor(c("price","carat","table","x","y"), method = "maxlik")
```

hclus

Hierarchical cluster analysis

Description

Hierarchical cluster analysis

Usage

```
hclus(dataset, vars, distance = "sq.euclidian", method = "ward.D",
    max_cases = 5000, data_filter = "")
```

Arguments

dataset Dataset name (string). This can be a dataframe in the global environment or an

element in an r_data list from Radiant

vars Vector of variables to include in the analysis

distance Distance method Method

max_cases Maximum number of cases allowed (default is 1000)

expression should be a string (e.g., "price > 10000")

Details

See https://radiant-rstats.github.io/docs/multivariate/hclus.html for an example in Radiant

Value

A list of all variables used in helus as an object of class helus

See Also

```
summary.hclus to summarize results plot.hclus to plot results
```

```
result <- hclus("shopping", vars = "v1:v6")</pre>
```

8 kclus

Description

K-clustering

Usage

```
kclus(dataset, vars, fun = "mean", hc_init = TRUE,
  distance = "sq.euclidian", method = "ward.D", seed = 1234,
  nr_clus = 2, data_filter = "")
```

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an r_data list from Radiant
vars	Vector of variables to include in the analysis
fun	Function to use: "mean" or "median"
hc_init	Use centers from helus as the starting point
distance	Distance for helus
method	Method for hclus
seed	Random see to use for k-clustering if hc_init is FALSE
nr_clus	Number of clusters to extract
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

Details

```
See https://radiant-rstats.github.io/docs/multivariate/kclus.html for an example in Radiant
```

Value

A list of all variables used in kclus as an object of class kclus

See Also

```
summary.kclus to summarize results
plot.kclus to plot results
store.kclus to add cluster membership to the selected dataset
```

```
result <- kclus("shopping", c("v1:v6"))</pre>
```

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mds

(Dis)similarity based brand maps (MDS)

Description

(Dis)similarity based brand maps (MDS)

Usage

```
mds(dataset, id1, id2, dis, method = "metric", nr_dim = 2, seed = 1234,
    data_filter = "")
```

Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an r _data list from Radiant
id1	A character variable or factor with unique entries
id2	A character variable or factor with unique entries
dis	A numeric measure of brand dissimilarity
method	Apply metric or non-metric MDS
nr_dim	Number of dimensions
seed	Random seed
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

Details

 $See \ https://radiant-rstats.github.io/docs/multivariate/mds.html\ for\ an\ example\ in\ Radiant$

Value

A list of all variables defined in the function as an object of class mds

See Also

```
summary.mds to summarize results
plot.mds to plot results
```

```
result <- mds("city", "from", "to", "distance")
summary(result)
result <- mds("diamonds", "clarity", "cut", "price")
summary(result)</pre>
```

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movie

Conjoint data for Movie theaters

Description

Conjoint data for Movie theaters

Usage

data(movie)

Format

A data frame with 18 rows and 6 variables

Details

Rankings reflect the evaluation of 18 alternative movie theaters by one respondent. Description provided in attr(movie, "description")

mp3

Conjoint data for MP3 players

Description

Conjoint data for MP3 players

Usage

data(mp3)

Format

A data frame with 18 rows and 6 variables

Details

Ratings reflect the evaluation of 18 alternative MP3 players by one respondent. Description provided in attr(mp3,"description")

plot.conjoint 11

plot.conjoint	Plot method for the conjoint function

Description

Plot method for the conjoint function

Usage

```
## S3 method for class 'conjoint'
plot(x, plots = "pw", show = "", scale_plot = FALSE,
    shiny = FALSE, custom = FALSE, ...)
```

Arguments

x	Return value from conjoint
plots	Show either the part-worth ("pw") or importance-weights ("iw") plot
show	Level in by variable to analyse (e.g., a specific respondent)
scale_plot	Scale the axes of the part-worth plots to the same range
shiny	Did the function call originate inside a shiny app
custom	Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot objects) should be returned. This opion can be used to customize plots (e.g., add a title, change x and y labels, etc.). See examples and http://docs.ggplot2.org/for options.
	further arguments passed to or from other methods

Details

See $https://radiant-rstats.github.io/docs/multivariate/conjoint.html \ for \ an \ example in \ Radiant$

See Also

```
conjoint to generate results
summary.conjoint to summarize results
```

```
result <- conjoint(dataset = "mp3", rvar = "Rating", evar = "Memory:Shape")
plot(result, scale_plot = TRUE)
plot(result, plots = "iw")</pre>
```

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Plot method for the full_factor function

Description

Plot method for the full_factor function

Usage

```
## S3 method for class 'full_factor'
plot(x, shiny = FALSE, custom = FALSE, ...)
```

Arguments

Х	Return value from full_factor
shiny	Did the function call originate inside a shiny app
custom	Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot objects) should be returned. This opion can be used to customize plots (e.g., add a title, change x and y labels, etc.). See examples and http://docs.ggplot2.org/for options.
	further arguments passed to or from other methods

Details

See $https://radiant-rstats.github.io/docs/multivariate/full_factor.html \ for \ an \ example in \ Radiant$

See Also

```
full_factor to calculate results
plot.full_factor to plot results
```

```
result <- full_factor("diamonds",c("price","carat","table"))
plot(result)
result <- full_factor("computer","high_end:business")
summary(result)</pre>
```

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Plot method for the hclus function

Description

Plot method for the hclus function

Usage

```
## S3 method for class 'hclus'
plot(x, plots = c("scree", "change"), cutoff = 0.05,
    shiny = FALSE, custom = FALSE, ...)
```

Arguments

X	Return value from hclus
plots	Plots to return. "change" shows the percentage change in within-cluster heterogeneity as respondents are grouped into different number of clusters, "dendro" shows the dendrogram, "scree" shows a scree plot of within-cluster heterogeneity
cutoff	For large datasets plots can take time to render and become hard to interpret. By selection a cutoff point (e.g., 0.05 percent) the initial steps in hierarchical cluster analysis are removed from the plot
shiny	Did the function call originate inside a shiny app
custom	Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot objects) should be returned. This opion can be used to customize plots (e.g., add a title, change x and y labels, etc.). See examples and http://docs.ggplot2.org/for options.
	further arguments passed to or from other methods

Details

See https://radiant-rstats.github.io/docs/multivariate/hclus.html for an example in Radiant

See Also

```
hclus to generate results summary. hclus to summarize results
```

```
result <- hclus("shopping", vars = c("v1:v6"))
plot(result, plots = c("change", "scree"), cutoff = .05)
plot(result, plots = "dendro", cutoff = 0)
shopping %>% hclus(vars = c("v1:v6")) %>% plot
```

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.	
plot.	kclus

Plot method for kclus

Description

Plot method for kclus

Usage

```
## S3 method for class 'kclus'
plot(x, plots = "density", shiny = FALSE, custom = FALSE,
...)
```

Arguments

Х	Return value from kclus
plots	One of "density", "bar", or "scatter")
shiny	Did the function call originate inside a shiny app
custom	Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot objects) should be returned. This opion can be used to customize plots (e.g., add a title, change x and y labels, etc.). See examples and http://docs.ggplot2.org/for options.
	further arguments passed to or from other methods

Details

See https://radiant-rstats.github.io/docs/multivariate/kclus.html for an example in Radiant

See Also

```
kclus to generate results
summary.kclus to summarize results
store.kclus to add cluster membership to the selected dataset
```

```
result <- kclus("shopping", vars = c("v1:v6"))
plot(result)
shopping %>% kclus(, vars = c("v1:v6")) %>% plot
```

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plot.mds

Plot method for the mds function

Description

Plot method for the mds function

Usage

```
## S3 method for class 'mds'
plot(x, rev_dim = NULL, fontsz = 1.3, ...)
```

Arguments

```
    x Return value from mds
    rev_dim Flip the axes in plots
    fontsz Font size to use in plots
    further arguments passed to or from other methods
```

Details

 $See \ https://radiant-rstats.github.io/docs/multivariate/mds.html \ for \ an \ example \ in \ Radiant$

See Also

```
mds to calculate results summary.mds to plot results
```

Examples

```
result <- mds("city","from","to","distance")
plot(result)
plot(result, rev_dim = 1:2)
plot(result, rev_dim = 1:2, fontsz = 2)</pre>
```

plot.pre_factor

Plot method for the pre_factor function

Description

Plot method for the pre_factor function

Usage

```
## S3 method for class 'pre_factor'
plot(x, plots = c("scree", "change"), cutoff = 0.2,
    shiny = FALSE, custom = FALSE, ...)
```

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Arguments

Plots to return. "change" shows the change in eigenvalues as variables grouped into different number of factors, "scree" shows a scree plot of eign values cutoff For large datasets plots can take time to render and become hard to interpret.	
selection a cutoff point (e.g., eigenvalues of .8 or higher) factors with the l explanatory power are removed from the plot	•
shiny Did the function call originate inside a shiny app	
Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot object should be returned. This opion can be used to customize plots (e.g., add a t change x and y labels, etc.). See examples and http://docs.ggplot2.ofor options.	itle,
further arguments passed to or from other methods	

Details

See https://radiant-rstats.github.io/docs/multivariate/pre_factor.html for an example in Radiant

See Also

```
pre_factor to calculate results
summary.pre_factor to summarize results
```

Examples

```
result <- pre_factor("diamonds",c("price","carat","table"))
plot(result)
plot(result, plots = c("change", "scree"), cutoff = .05)</pre>
```

plot.prmap

Plot method for the prmap function

Description

Plot method for the prmap function

Usage

```
## S3 method for class 'prmap'
plot(x, plots = "", scaling = 2.1, fontsz = 1.3, ...)
```

predict.conjoint 17

Arguments

Х	Return value from prmap
plots	Components to include in the plot ("brand", "attr"). If data on preferences is available use "pref" to add preference arrows to the plot
scaling	Arrow scaling in the brand map
fontsz	Font size to use in plots
	further arguments passed to or from other methods

Details

```
See https://radiant-rstats.github.io/docs/multivariate/prmap.html for an example in Radiant
```

See Also

```
prmap to calculate results summary.prmap to plot results
```

Examples

predict.conjoint

Predict method for the conjoint function

Description

Predict method for the conjoint function

Usage

```
## S3 method for class 'conjoint'
predict(object, pred_data = "", pred_cmd = "",
    conf_lev = 0.95, se = FALSE, dec = 3, ...)
```

Arguments

object	Return value from conjoint
pred_data	Name of the dataset to use for prediction
pred_cmd	Command used to generate data for prediction
conf_lev	Confidence level used to estimate confidence intervals (.95 is the default)

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se	Logical that indicates if prediction standard errors should be calculated (default
dec	= FALSE) Number of decimals to show
	further arguments passed to or from other methods

Details

See https://radiant-rstats.github.io/docs/multivariate/conjoint.html for an example in Radiant

See Also

```
conjoint to generate the result
summary.conjoint to summarize results
plot.conjoint to plot results
```

Examples

```
result <- conjoint("mp3", rvar = "Rating", evar = "Memory:Shape")
predict(result, pred_data = "mp3")</pre>
```

predict_conjoint_by

Predict method for the conjoint function when a by variables is used

Description

Predict method for the conjoint function when a by variables is used

Usage

```
predict_conjoint_by(object, pfun, pred_data = "", pred_cmd = "",
    conf_lev = 0.95, se = FALSE, dec = 3, ...)
```

Arguments

ult

Details

See https://radiant-rstats.github.io/docs/multivariate/conjoint.html for an example in Radiant

pre_factor 19

See Also

```
conjoint to generate the result
summary.conjoint to summarize results
plot.conjoint to plot results
```

pre_factor

Evaluate if data are appropriate for PCA / Factor analysis

Description

Evaluate if data are appropriate for PCA / Factor analysis

Usage

```
pre_factor(dataset, vars, data_filter = "")
```

Arguments

dataset Dataset name (string). This can be a dataframe in the global environment or an

element in an r_data list from Radiant

vars Variables to include in the analysis

expression should be a string (e.g., "price > 10000")

Details

See $https://radiant-rstats.github.io/docs/multivariate/pre_factor.html \ for \ an \ example in Radiant$

Value

A list with all variables defined in the function as an object of class pre_factor

See Also

```
summary.pre_factor to summarize results
plot.pre_factor to plot results
```

```
result <- pre_factor("diamonds",c("price","carat","table"))</pre>
```

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```
print.conjoint.predict
```

Print method for predict.conjoint

Description

Print method for predict.conjoint

Usage

```
## S3 method for class 'conjoint.predict' print(x, ..., n = 50)
```

Arguments

x Return value from prediction method

... further arguments passed to or from other methods

n Number of lines of prediction results to print. Use -1 to print all lines

prmap Attribute based brand maps

Description

Attribute based brand maps

Usage

```
prmap(dataset, brand, attr, pref = "", nr_dim = 2, data_filter = "")
```

Arguments

dataset Dataset name (string). This can be a dataframe in the global environment or an

element in an r_data list from Radiant

brand A character variable with brand names

attr Names of numeric variables

pref Names of numeric brand preference measures

nr_dim Number of dimensions

expression should be a string (e.g., "price > 10000")

Details

See https://radiant-rstats.github.io/docs/multivariate/prmap.html for an example in Radiant

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Value

A list of all variables defined in the function as an object of class prmap

See Also

```
summary.prmap to summarize results
plot.prmap to plot results
```

Examples

```
result <- prmap("computer","brand","high_end:business")</pre>
```

```
radiant.multivariate radiant.multivariate
```

Description

radiant.multivariate

Launch radiant.multivariate in the default browser

Usage

```
radiant.multivariate()
```

Details

See https://radiant-rstats.github.io/docs for documentation and tutorials

Examples

```
## Not run:
radiant.multivariate()
## End(Not run)
```

radiant.multivariate-deprecated

Deprecated function(s) in the radiant.multivariate package

Description

These functions are provided for compatibility with previous versions of radiant. They will eventually be removed.

Usage

```
save_factors(...)
```

Arguments

Parameters to be passed to the updated functions

Details

save_factors is now a synonym for store.full_factor
save_membership is now a synonym for store.kclus
kmeans_clus is now a synonym for kclus
hier_clus is now a synonym for hclus
pmap is now a synonym for prmap

radiant.multivariate_viewer

Launch radiant.multivariate in the Rstudio viewer

Description

Launch radiant.multivariate in the Rstudio viewer

Usage

```
radiant.multivariate_viewer()
```

Details

See https://radiant-rstats.github.io/docs for documentation and tutorials

Examples

```
## Not run:
radiant.multivariate_viewer()
## End(Not run)
```

radiant.multivariate_window

Launch radiant.multivariate in an Rstudio window

Description

Launch radiant.multivariate in an Rstudio window

Usage

```
radiant.multivariate_window()
```

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Details

See https://radiant-rstats.github.io/docs for documentation and tutorials

Examples

```
## Not run:
radiant.multivariate_window()
## End(Not run)
```

retailers

Perceptions of retailers

Description

Perceptions of retailers

Usage

```
data(retailers)
```

Format

A data frame with 6 rows and 10 variables

Details

Consumer evaluations for a set of retailers in the Chicago area on 7 attributes. The dataset is used to illustrate perceptual maps. Description provided in attr(retailers, "description")

shopping

Shopping attitudes

Description

Shopping attitudes

Usage

```
data(shopping)
```

Format

A data frame with 20 rows and 7 variables

Details

Attitudinal data on shopping for 20 consumers. Description provided in attr(shopping, "description")

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store.conjoint	Store method for the Multivariate	> Conjoint tab

Description

Store method for the Multivariate > Conjoint tab

Usage

```
## S3 method for class 'conjoint'
store(object, name = "PWs", type = "PW",
    envir = parent.frame(), df = FALSE, ...)
```

Arguments

object	Return value from conjoint
name	Name of the dataset to store
type	Type of output to store
envir	Environment to assign 'new' dataset (optional). Used when an r_data list is not available
df	Return data.frame
	further arguments passed to or from other methods

Details

Store data frame with PWs or IWs in Radiant r_data list if available

```
{\it Store \ predicted \ values \ generated \ in \ predict. conjoint}}
```

Description

Store predicted values generated in predict.conjoint

Usage

```
## S3 method for class 'conjoint.predict'
store(object, ..., data = attr(object,
   "pred_data"), name = "prediction", df = FALSE)
```

Arguments

object	Return value from model predict function
	Additional arguments
data	Data or dataset name (e.g., data = mtcars or data = "mtcars")
name	Variable name(s) assigned to predicted values
df	Return data.frame

Details

See $https://radiant-rstats.github.io/docs/multivariate/conjoint.html \ for \ an \ example in \ Radiant$

```
store.conjoint.predict.by
```

Store method for the Multivariate > Conjoint > Predict

Description

Store method for the Multivariate > Conjoint > Predict

Usage

```
## S3 method for class 'conjoint.predict.by'
store(object, name = "predict_by",
   envir = parent.frame(), df = FALSE, ...)
```

Arguments

object Return value from predict.conjoint name Name of the dataset to store

envir Environment to assign 'new' dataset (optional). Used when an r_data list is not

available

df Return data.frame

... further arguments passed to or from other methods

Details

Store data frame with predictions in Radiant r_data list if available

Description

Store factor scores to active dataset

Usage

```
## S3 method for class 'full_factor'
store(object, ..., name = "")
```

Arguments

object Return value from full_factor

... Additional arguments

name Name of factor score variables

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Details

See $https://radiant-rstats.github.io/docs/multivariate/full_factor.html \ for \ an \ example in \ Radiant$

See Also

```
full_factor to generate results
summary.full_factor to summarize results
plot.full_factor to plot results
```

Examples

```
full_factor(shopping, "v1:v6", nr_fact = 3) %>%
  store %>%
  head
```

store.kclus

Add a cluster membership variable to the active dataset

Description

Add a cluster membership variable to the active dataset

Usage

```
## S3 method for class 'kclus'
store(object, ..., name = "")
```

Arguments

object Return value from kclus
... Additional arguments

name Name of cluster membership variable

Details

See https://radiant-rstats.github.io/docs/multivariate/kclus.html for an example in Radiant

See Also

```
kclus to generate results
summary.kclus to summarize results
plot.kclus to plot results
```

```
kclus(shopping, vars = "v1:v6") %>% store %>% head
```

summary.conjoint 27

summary.conjoint	Summary method for the conjoint function

Description

Summary method for the conjoint function

Usage

```
## S3 method for class 'conjoint'
summary(object, show = "", mc_diag = FALSE,
additional = FALSE, dec = 3, ...)
```

Arguments

object	Return value from conjoint
show	Level in by variable to analyse (e.g., a specific respondent)
mc_diag	Shows multicollinearity diagnostics.
additional	Show additional regression results
dec	Number of decimals to show
	further arguments passed to or from other methods

Details

See https://radiant-rstats.github.io/docs/multivariate/conjoint.html for an example in Radiant

See Also

```
conjoint to generate results
plot.conjoint to plot results
```

```
result <- conjoint("mp3", rvar = "Rating", evar = "Memory:Shape")
summary(result, mc_diag = TRUE)
mp3 %>% conjoint(rvar = "Rating", evar = "Memory:Shape") %>% summary(., mc_diag = TRUE)
```

28 summary.full_factor

```
summary.full_factor Summary method for the full_factor function
```

Description

Summary method for the full_factor function

Usage

```
## S3 method for class 'full_factor'
summary(object, cutoff = 0, fsort = FALSE, dec = 2,
...)
```

Arguments

object	Return value from full_factor
cutoff	Show only loadings with (absolute) values above cutoff (default = 0)
fsort	Sort factor loadings
dec	Number of decimals to show
	further arguments passed to or from other methods

Details

See $https://radiant-rstats.github.io/docs/multivariate/full_factor.html \ for \ an \ example in \ Radiant$

See Also

```
full_factor to calculate results
plot.full_factor to plot results
```

```
result <- full_factor("diamonds",c("price","carat","depth","table","x"))
summary(result)
summary(result, cutoff = 0, fsort = FALSE)
summary(result, cutoff = 0, fsort = TRUE)
summary(result, cutoff = .5, fsort = TRUE)
diamonds %>% full_factor(c("price","carat","depth","table","x")) %>% summary
diamonds %>% full_factor(c("price","carat","depth","table","x")) %>% summary(cutoff = .5)
```

summary.hclus 29

summary.hclus

Summary method for the hclus function

Description

Summary method for the hclus function

Usage

```
## S3 method for class 'hclus'
summary(object, ...)
```

Arguments

object Return value from hclus

... further arguments passed to or from other methods

Details

See https://radiant-rstats.github.io/docs/multivariate/hclus.html for an example in Radiant

See Also

```
hclus to generate results plot.hclus to plot results
```

Examples

```
result <- hclus("shopping", vars = c("v1:v6"))
summary(result)</pre>
```

summary.kclus

Summary method for kclus

Description

Summary method for kclus

Usage

```
## S3 method for class 'kclus'
summary(object, dec = 2, ...)
```

Arguments

object Return value from kclus
dec Number of decimals to show

... further arguments passed to or from other methods

30 summary.mds

Details

See https://radiant-rstats.github.io/docs/multivariate/kclus.html for an example in Radiant

See Also

```
kclus to generate results
plot.kclus to plot results
store.kclus to add cluster membership to the selected dataset
```

Examples

```
result <- kclus("shopping", vars = c("v1:v6"))
summary(result)
shopping %>% kclus(vars = c("v1:v6"), nr_clus = 3) %>% summary
```

summary.mds

Summary method for the mds function

Description

Summary method for the mds function

Usage

```
## S3 method for class 'mds'
summary(object, dec = 2, ...)
```

Arguments

object Return value from mds
dec Rounding to use for output (default = 2). +1 used for stress measure

... further arguments passed to or from other methods

Details

 $See \ https://radiant-rstats.github.io/docs/multivariate/mds.html \ for \ an \ example \ in \ Radiant$

See Also

```
mds to calculate results plot.mds to plot results
```

```
result <- mds("city", "from", "to", "distance")
summary(result)
summary(result, dec = 2)
city %>% mds("from", "to", "distance") %>% summary
```

summary.pre_factor 31

summary.pre_factor

Summary method for the pre_factor function

Description

Summary method for the pre_factor function

Usage

```
## S3 method for class 'pre_factor'
summary(object, dec = 2, ...)
```

Arguments

object Return value from pre_factor
dec Rounding to use for output

... further arguments passed to or from other methods

Details

See $https://radiant-rstats.github.io/docs/multivariate/pre_factor.html \ for \ an \ example in Radiant$

See Also

```
pre_factor to calculate results
plot.pre_factor to plot results
```

Examples

```
result <- pre_factor("diamonds",c("price","carat","table"))
summary(result)
diamonds %>% pre_factor(c("price","carat","table")) %>% summary
result <- pre_factor("computer","high_end:business")
summary(result)</pre>
```

summary.prmap

Summary method for the prmap function

Description

Summary method for the prmap function

Usage

```
## S3 method for class 'prmap'
summary(object, cutoff = 0, dec = 2, ...)
```

32 the_table

Arguments

object Return value from prmap

cutoff Show only loadings with (absolute) values above cutoff (default = 0)

dec Rounding to use for output

... further arguments passed to or from other methods

Details

See https://radiant-rstats.github.io/docs/multivariate/prmap.html for an example in Radiant

See Also

```
prmap to calculate results
plot.prmap to plot results
```

Examples

```
result <- prmap("computer","brand","high_end:business")
summary(result)
summary(result, cutoff = .3)
result <- prmap("computer","brand","high_end:dated", pref = c("innovative","business"))
summary(result)
computer %>% prmap("brand","high_end:dated", pref = c("innovative","business")) %>%
summary
```

the_table

Function to calculate the PW and IW table for conjoint

Description

Function to calculate the PW and IW table for conjoint

Usage

```
the_table(model, dat, evar)
```

Arguments

model Tidied model results (broom) output from conjoint passed on by summary.conjoint

dat Conjoint data

evar Explanatory variables used in the conjoint regression

Details

See https://radiant-rstats.github.io/docs/multivariate/conjoint.html for an example in Radiant

toothpaste 33

See Also

```
conjoint to generate results
summary.conjoint to summarize results
plot.conjoint to plot results
```

Examples

```
result <- conjoint(dataset = "mp3", rvar = "Rating", evar = "Memory:Shape")
the_table(tidy(result$model_list[[1]][["model"]]), result$dat, result$evar)</pre>
```

toothpaste

Toothpaste attitudes

Description

Toothpaste attitudes

Usage

data(toothpaste)

Format

A data frame with 60 rows and 10 variables

Details

Attitudinal data on toothpaste for 60 consumers. Description provided in attr(toothpaste, "description")

tpbrands

Toothpaste brands

Description

Toothpaste brands

Usage

data(tpbrands)

Format

A data frame with 45 rows and 4 variables

Details

Perceived (dis)similarity of a set of toothpaste brands. The dataset is used to illustrate multidimensional scaling (MDS). Description provided in attr(tpbrands, "description")

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