Package 'sorvi'

July 2, 2014

Type Package

Title Finnish Open Government Data Toolkit

Version 0.6.23

Date 2014-06-03

Author Leo Lahti, Juuso Parkkinen, Joona Lehtomaki, Juuso Haapanen, Jussi Paananen, Einari Happonen

Maintainer Leo Lahti <louhos@googlegroups.com>

Description Algorithms for Finnish Open Government Data

License BSD_2_clause + file LICENSE

VignetteBuilder knitr

BugReports https://github.com/louhos/sorvi/issues

URL http://louhos.github.com/sorvi

Depends R (>= 3.0.2), reshape, pxR

Imports ggplot2, plyr, RColorBrewer, XML

Suggests gdata, knitr, RCurl, rjson

LazyLoad yes

NeedsCompilation no

Repository CRAN

Date/Publication 2014-06-03 18:27:12

R topics documented:

`sorvi-package` *Algorithmic Tools for Open Data in Finland*

Description

Brief summary of the sorvi package

Details

Package:	sorvi
Type:	Package
Version:	See sessionInfo() or DESCRIPTION file
Date:	2010-2014
License:	BSD-2-clause
LazyLoad:	yes

Algorithmic core tools for Open Data in Finland

Author(s)

Leo Lahti, Juuso Parkkinen, Jussi Paananen, Joona Lehtomaki, Einari Happonen, and Juuso Haapanen <louhos@googlegroups.com>

References

See citation("sorvi") http://louhos.github.com/sorvi

Examples

```
library(sorvi)
```

---

convert_municipality_codes *Conversions between municipality codes and names*

Description

Conversions between municipality codes and names

Usage

```
convert_municipality_codes(ids = NULL, municipalities = NULL)
```

Arguments

ids	NULL
municipalities	NULL

Value

Depending on the input. Converted id or name vector, or full conversion table.

Author(s)

Leo Lahti <louhos@googlegroups.com>

References

See citation("sorvi")

Examples

```
## Not run: conversion.table <- convert_municipality_codes()
```

`fi.en.maakunnat` *fi.en.maakunnat data documentation*

Description

Mappings between Finnish and English province (maakunta) names

Usage

```
#translations <- load_sorvi_data("translations")
```

Format

list

Author(s)

Leo Lahti <louhos@googlegroups.com>

`get_municipality_info_mml` *Get information of Finnish municipalities from Land Survey Finland 2013. (C) Maanmittauslaitos MML 2013. For details of MML data, see help(GetShapeMML).*

Description

Get information of Finnish municipalities from Land Survey Finland 2013. (C) Maanmittauslaitos MML 2013. For details of MML data, see help(GetShapeMML).

Usage

```
get_municipality_info_mml()
```

Value

A data frame with municipality data

Author(s)

Leo Lahti <louhos@googlegroups.com>

References

See citation("sorvi")

Examples

```
## Not run: tab <- get_municipality_info_mml()
```

`get_municipality_info_statfi` *Get information of Finnish municipalities from Statistics Finland 2013*

Description

Get information of Finnish municipalities from Statistics Finland 2013

Usage

```
get_municipality_info_statfi(verbose = TRUE, ...)
```

Arguments

`verbose`	verbose
`...`	Arguments to be passed

Value

A data frame with municipality data

Author(s)

Leo Lahti <louhos@googlegroups.com>

References

See citation("sorvi")

Examples

```
## Not run: df <- get_municipality_info_statfi()
```

get_postal_code_info *Get Finnish postal codes vs. municipalities table from Wikipedia.*

Description

Get Finnish postal codes vs. municipalities table from Wikipedia.

Usage

```
get_postal_code_info(...)
```

Arguments

...	Arguments to be passed

Value

A data frame with following fields: postal.code: postal code; municipality: Name of the municipality (kunnan nimi); municipality.scandless: Municpality name without special chars

Author(s)

Juuso Parkkinen and Leo Lahti <louhos@googlegroups.com>

References

See citation("sorvi")

Examples

```
## Not run: postal.code.table <- get_postal_code_info()
```

get_province_info_wikipedia *Get information of Finnish provinces.*

Description

Get information of Finnish provinces.

Usage

```
get_province_info_wikipedia(...)
```

Arguments

...	Arguments to be passed

Value

A data frame. With the following entries: Maakunta: province; Pinta-ala: area; Vakiluku: population; Vaestotiheys: population density

Author(s)

Leo Lahti <louhos@googlegroups.com>

References

See citation("sorvi")

Examples

```
## Not run: tab <- get_province_info_wikipedia()
```

---

hetu *Extract information from a Finnish personal identification number*

Description

Extract information from a Finnish personal identification number

Usage

```
hetu(hetu)
```

Arguments

hetu	Finnish personal identification number as a string

Value

Finnish personal identification number object. Returns NA if the given string is not a valid Finnish personal identification number.

hetu	Finnish personal identification number as a string.
gender	Gender of the person. Male or Female.
personal.number	Personal number part of the identification number.
checksum	Checksum for the personal identification number.
date	Birthdate.
day	Day of the birthdate.
month	Month of the birthdate.
year	Year of the birthdate.
century.char	Century of the birthdate: + (1800), - (1900) or A (2000).

Author(s)

Jussi Paananen <louhos@googlegroups.com>

See Also

valid_hetu For validating Finnish personal identification number.

Examples

```
hetu("111111-111C")
hetu("111111-111C")$date
hetu("111111-111C")$gender
```

---

is_url *Check if the given object is an url string*

Description

Arguments:

Usage

```
is_url(s)
```

Arguments

s	input object to check
	Returns:

Value

TRUE/FALSE indicating whether the input string is a valid URL.

Author(s)

Leo Lahti <louhos@googlegroups.com>

References

See citation("sorvi")

Examples

```
is_url("http://aa.px")
```

korvaa_skandit *Replace special characters with standard ones.*

Description

Replace special characters with standard ones.

Usage

```
korvaa_skandit(s)
```

Arguments

s	string from which the special chars should be removed

Value

string with special chars replaced by standard ones

Note

iconv function provides better tools for these purposes and is now the main tool This function is kept for compatibility with the older versions.

Author(s)

Leo Lahti <louhos@googlegroups.com>

References

See citation("sorvi")

Examples

```
korvaa_skandit("my.string.here") # if no, special chars, the same string is returned
```

load_sorvi_data *load_sorvi_data*

Description

Arguments:

Usage

```
load_sorvi_data(data.id, verbose = TRUE)
```

Arguments

data.id	data ID to download (suffix before .rda). Investigate the contents of the url path to check data.ids
verbose	verbose
	Return:

Value

translations

Author(s)

Leo Lahti <louhos@googlegroups.com>

References

See citation("sorvi")

Examples

```
# translations <- load_sorvi_data("translations")
```

---

municipality_to_province

List province for each municipality in Finland.

Description

List province for each municipality in Finland.

Usage

```
municipality_to_province(municipalities = NULL, municipality.info = NULL)
```

Arguments

```
municipalities  NULL
municipality.info
                NULL
```

Value

Mapping vector listing the province for each municipality in Finland.

Author(s)

Leo Lahti <louhos@googlegroups.com>

References

See citation("sorvi")

Examples

```
# Info table for municipalities:
# municipality.info <- get_municipality_info_statfi()
# List all municipalities:
# all.municipalities <- as.character(municipality.info$Kunta)
# Pick province for given municipalities:
# mapping between municipalities (kunta) and provinces (maakunta)
# m2p <- municipality_to_province(c("Helsinki", "Tampere", "Turku"))
# Speed up by providing predefined table of municipality info:
# m2p <- municipality_to_province(c("Helsinki", "Tampere", "Turku"), municipality.info)
```

`regression_plot` *Description: Draw regression curve with smoothed error bars based on the Visuprintally-Weighted Regression by Solomon M. Hsiang; see http://www.fight-entropy.com/2012/07/visually-weighted-regression.html The R implementation is based on Felix Schonbrodt's code from http://www.nicebread.de/visually-weighted-watercolor-plots-new-variants-please-vote/*

Description

Arguments:

Usage

```
regression_plot(formula, data, title = "", B = 1000, shade = TRUE,
  shade.alpha = 0.1, spag = FALSE, mweight = TRUE, show.lm = FALSE,
  show.median = TRUE, median.col = "white", show.CI = FALSE,
  method = loess, bw = FALSE, slices = 200,
  palette = colorRampPalette(c("#FFEDA0", "#DD0000"), bias = 2)(20),
  ylim = NULL, quantize = "continuous", .progress = "none", ...)
```

Arguments

formula	formula
data	data
title	title
B	number bootstrapped smoothers
shade	plot the shaded confidence region?
shade.alpha	shade.alpha: should the CI shading fade out at the edges? (by reducing alpha; 0 = no alpha decrease, 0.1 = medium alpha decrease, 0.5 = strong alpha decrease)
spag	plot spaghetti lines?
mweight	should the median smoother be visually weighted?
show.lm	should the linear regresison line be plotted?
show.median	show median smoother
median.col	median color
show.CI	should the 95% CI limits be plotted?
method	the fitting function for the spaghettis; default: loess
bw	define a default b/w-palette (TRUE/FALSE)
slices	number of slices in x and y direction for the shaded region. Higher numbers make a smoother plot, but takes longer to draw. I wouldn'T go beyond 500
palette	provide a custom color palette for the watercolors
ylim	restrict range of the watercoloring
quantize	either "continuous", or "SD". In the latter case, we get three color regions for 1, 2, and 3 SD (an idea of John Mashey)
.progress	Progress information for ddply
...	further parameters passed to the fitting function, in the case of loess, for example, "span = .9", or "family = 'symmetric'"
	Returns:

Value

ggplot2 object

Author(s)

Based on the original version from Felix Schonbrodt. Modified by Leo Lahti <microbiome-admin@googlegroups.com>

References

See citation("microbiome")

Examples

```
## Not run: library(sorvi); library(plyr); library(RColorBrewer);
               library(ggplot2); data(iris);
      p <- regression_plot(Sepal.Length ~ Sepal.Width, iris)
## End(Not run)
```

ropengov_storage_path *ropengov_storage_path*

Description

Arguments: ... Arguments to pass

Usage

```
ropengov_storage_path()
```

Details

Return:

Value

URL for Louhos data

Author(s)

Leo Lahti <louhos@googlegroups.com>

References

See citation("sorvi")

Examples

```
url <- ropengov_storage_path()
```

strip *strip string i.e. remove spaces from the beginning and end*

Description

strip string i.e. remove spaces from the beginning and end

Usage

```
strip(s)
```

Arguments

s	string or character vector

Value

stripped string

Author(s)

Leo Lahti <louhos@googlegroups.com>

References

See citation("sorvi")

Examples

```
strip(c("s ", " a"))
```

---

strstrip *Remove spaces from a string (single string or vector/list of strings).*

Description

Remove spaces from a string (single string or vector/list of strings).

Usage

```
strstrip(s)
```

Arguments

s	string or vector/list of strings

Value

string without spaces

Author(s)

Leo Lahti <louhos@googlegroups.com>

References

See citation("sorvi")

Examples

```
strstrip("a b") # returns "ab"
```

valid_hetu *Validate a Finnish personal identification number (HETU).*

Description

Validate a Finnish personal identification number (HETU).

Usage

```
valid_hetu(hetu)
```

Arguments

hetu	Finnish personal identification number as a string.

Value

Is the given string a valid Finnish personal identification number, TRUE or FALSE.

Author(s)

Jussi Paananen <louhos@googlegroups.com>

See Also

hetu For extracting information from a Finnish personal identification number.

Examples

```
valid_hetu("010101-0101") # TRUE
valid_hetu("010101-010A") # FALSE
```

Index