Package ‘StandardizeText’

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StandardizeText-package

Description

  Standardizes text according to a template; particularly useful for country names.

Details
This package contains two main functions: standardize.text() standardizes generic text, and standardize.countrynames() is optimized for standardizing country names.

Author(s)

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Examples

library(StandardizeText)
sample.text <- c("blue car","STOP","email","tree")
sample.std <- c("the tree","car","e-mail","stop")
sample.df <- data.frame(foo=2:5,bar=sample.text, baz=7:4, qux=sample.std)
out.a <- standardize.text(sample.text,standard=sample.std,suggest="auto")
out.b <- standardize.text(sample.df,2,sample.df,"qux",suggest="auto")

country.names

Country Names

Description

A list containing the country names used by various organizations, including the International Monetary Fund (IMF), International Standards Organization (ISO), Penn World Tables (PWT), World Bank (WB), and World Health Organization (WHO). The default names are mostly derived from the ISO name set.

Usage

data(country.names)

Format

The format is: List of 6 $ default: chr [1:260] "Afghanistan" "Aland Islands" "Albania" "Algeria" ...
$ imf : chr [1:184] "Islamic Republic of Afghanistan" "Albania" "Algeria" "Angola" ...
$ iso : chr [1:249] "Afghanistan" "Aland Islands" "Albania" "Algeria" ...
$ pwt : chr [1:189] "Afghanistan" "Albania" "Algeria" "Angola" ...
$ wb : chr [1:217] "Afghanistan" "Albania" "Algeria" "American Samoa" ...
$ who : chr [1:193] "Afghanistan" "Albania" "Algeria" "Andorra" ...

Examples

data(country.names)
**country.regex**

**Country Name Regular Expressions**

**Description**

A data frame containing regular expressions for matching country names, where each country is identified by the ISO 3166-1 Alpha-2 code. Used internally by the standardize.countrynames function.

**Usage**

```r
data(country.regex)
```

**Format**

A data frame with 260 observations on the following 2 variables.

- **regex** a character vector
- **code** a character vector

**Examples**

```r
data(country.regex)
```

---

**standardize.countrynames**

**Standardize Country Names**

**Description**

Takes in a dataframe or vector containing a column of country names and returns the data structure with the names standardized.

**Usage**

```r
standardize.countrynames(input, input.column = NULL, standard = "default", standard.column = NULL, only.names = FALSE, na.rm = FALSE, suggest = "prompt", print.changes = TRUE, verbose = FALSE)
```

**Arguments**

- **input** A dataframe or vector containing a column of country names
- **input.column** The column containing country names if input is a dataframe, identified by name or number; ignored if input a vector
- **standard** The name of an included name set (see details), or a dataframe or vector containing a column of standard names
standard.column

The column containing standard names if standard is a dataframe, identified by name or number; ignored if standard a vector or an included name set

only.names

Only return a vector of standardized names

na.rm

Remove any countries not contained in the standard set

suggest

Suggestions for inexact matches; "prompt" allows user to select desired suggestions, "auto" applies all, "none" applies none

print.changes

Print which names changed

verbose

Print full output, including names of nonidentified countries

Details

Included name sets "default": Naming convention based on the ISO "imf": International Monetary Fund names "iso": International Standards Organization names "pwt": Penn World Tables names "wb": World Bank names "who": World Health Organization names

Value

If input a dataframe, returns the identical dataframe with the country names column standardized; if input a vector of country names, returns the standardized vector

Examples

library(StandardizeText)
sample.names <- c("Aland Is.","Brunei Daru.","Ivory Coast","The Gambia")
sample.std <- c("brunei","aland is","gambia, the","cote divoire")
sample.df <- data.frame(foo=2:5,bar=sample.names, baz=7:4, qux=sample.std)

#Standardize vector using iso names
out.a <- standardize.countrynames(sample.names,standard="iso",suggest="auto")
#Standardize vector using provided names
out.b <- standardize.countrynames(sample.names,standard=sample.std,suggest="auto")
#Standardize dataframe using wb names
out.c <- standardize.countrynames(sample.df,2,standard="wb",suggest="auto",verbose=TRUE)
#Standardize dataframe using provided names without suggestions

standardize.text  Standardize Text

Description

Takes in a dataframe or vector containing a column of text and returns the data structure with the text standardized.

Usage

standardize.text(input, input.column = NULL, standard, standard.column = NULL, regex = NULL, codes = NULL, match = FALSE, only.names = FALSE, na.rm = FALSE, suggest = "prompt", print.changes = TRUE, verbose = FALSE)
standardize.text

Arguments

input A dataframe or vector containing a column of text
input.column The column containing text if input is a dataframe, identified by name or number; ignored if input a vector
standard A dataframe or vector containing a column of standard text
standard.column The column containing standard text if standard is a dataframe, identified by name or number; ignored if standard a vector
regex An optional vector of regular expressions; if NULL regex will be generated from standard
codes An optional vector of identified codes; if NULL codes will be generated automatically
match Mark true if there is a one-to-one correspondence between provided standard and provided regex
only.names Only return a vector of standardized names
na.rm Remove any entries whose text does not appear in the standard set
suggest Suggestions for inexact matches; "prompt" allows user to select desired suggestions, "auto" applies all, "none" applies none
print.changes Print which text entries changed
verbose Print full output, including unidentified text

Value

If input a dataframe, returns the identical dataframe with the text column standardized; if input a vector of text, returns the standardized vector

Examples

library(StandardizeText)
sample.text <- c("blue car","STOP","email","tree")
sample.std <- c("the tree","car","e-mail","stop")
sample.df <- data.frame(foo=2:5,bar=sample.text, baz=7:4, qux=sample.std)
out.a <- standardize.text(sample.text,standard=sample.std,suggest="auto")
out.b <- standardize.text(sample.df,2,sample.df,"qux",suggest="auto")
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