# Package 'socviz'

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Type Package Title Utility Functions and Data Sets for Data Visualization Version 1.2 Maintainer Kieran Healy <kjhealy@gmail.com> Description Supporting materials for a course and book on data visualization. It contains utility functions for graphs and several sample data sets. See Healy (2019) <ISBN 978-0691181622>. License MIT + file LICENSE **Depends** R (>= 3.5) Imports dplyr, fs, graphics, magrittr, rlang, tibble Suggests ggplot2 **Encoding** UTF-8 LazyData true URL http://kjhealy.github.io/socviz/ BugReports https://github.com/kjhealy/socviz/issues RoxygenNote 7.1.0 NeedsCompilation no

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# Index

asasec

American Sociological Association Section Membership

# Description

Membership (2005-2015) and some financial information for sections of the American Sociolgical Association

# Usage

asasec

# Format

A data frame with 572 rows and 9 columns.

# bad\_date

#### Source

ASA Annual Report 2016

bad\_date

Dates in character form

#### Description

A table of dates and observations with the date column stored as a character string.

#### Usage

bad\_date

# Format

A tibble with 10 rows and two columns.

#### Source

Chris Delcher.

boomer

Monthly Births in the US, and England & Wales

#### Description

Births by month, 1933-2015 (United States) and 1938-1991 (England & Wales)

#### Usage

boomer

#### Format

A tibble with 1,644 rows and 6 columns.

#### Details

The variables are as follows:

- date. Year and month. (Day is arbitrarily set to 01 for all observations, data are monthly.)
- month. Month of the year (1-12).
- n\_days. The number of days in a given month/year date.
- births. Total live births for that month.
- total\_pop. National population estimate for that month.
- country. United States or England & Wales.

# Source

UK Office of National Statistics; US Census Bureau.

center\_df

# center\_df

# Description

Scale and/or center the numeric columns of a data frame or tibble

# Usage

center\_df(data, sc = FALSE, cen = TRUE)

# Arguments

data	A data frame or tibble
sc	Scale the variables (default FALSE)
cen	Center the variables on their means (default TRUE)

# Details

Takes a data frame or tibble as input and scales and/or centers the numeric columns. By default, centers but doesn't scale

#### Value

An object of the same class as 'data', with the numeric columns scaled or centered as requested

#### Author(s)

Kieran Healy

# Examples

head(center\_df(organdata))

color\_comp

# Description

Plot a table of color hex values as a table of colors

#### Usage

```
color_comp(df)
```

# Arguments df

data frame of color hex values

# Details

Given a data frame of color values, plot them as swatches

# Value

Plot of table of colors

# Author(s)

Kieran Healy

# Examples

```
color_table
color_comp(color_table)
```

color\_pal

Draw a palette of colors

# Description

Draw a palette of colors

# Usage

color\_pal(col, border = "gray70", ...)

# Arguments

col	vector of colors
border	border
	other arguments

# Details

Borrowed from the colorspace library

# Value

Plot of a color palette

# Author(s)

colorspace library authors

# Examples

```
color_pal(c("#66C2A5", "#FC8D62", "#8DA0CB"))
```

color\_table A table of hex color values related to types of color blindness

# Description

Hex values for five default ggplot colors, with corresponding approximations for three kinds of color blindness. Produced by the 'dichromat' package.

#### Usage

color\_table

#### Format

A tibble with five rows and four columns.

#### Source

Kieran Healy

county\_data

#### Description

Selected county data (including state-level observations on some variables)

#### Usage

county\_data

#### Format

A data frame with 3195 rows and 13 columns.

#### Details

The variables are as follows:

- id. FIPS State and County code (character)
- name. State or County Name
- state. State abbreviation
- census\_region. Census region
- pop\_dens. Population density per square mile, 2014 estimate (seven categories).
- pop\_dens4. Population density per square mile, 2014 estimate (quartiles)
- pop\_dens6. Poptulation density per square mile, 2014 estimate (six categories)
- pct\_black. Percent black population, 2014 estimate (seven category factor)
- pop. Population, 2014 estimate
- female. Female persons, percent, 2013
- white. White alone, percent, 2013
- black. Black alone, percent, 2013
- travel\_time. Mean travel time to work (minutes), workers age 16+, 2009-2013
- land\_area. Land area in square miles, 2010
- hh\_income. Median household income, 2009-2013
- su\_gun4. Firearm-related suicides per 100,000 population, 1999-2015. Factor variable cut into quartiles. Note that the values in this variable contain an inaccurate bottom-quartile cod-ing by construction. Do not present this variable as an accurate measure of the firearm-related suicide rate.
- su\_gun6. Firearm-related suicides per 100,000 population, 1999-2015. Factor variable cut into six categories. Note that the values in this variable contain an inaccurate bottom-quartile coding by construction. Do not present this variable as an accurate measure of the firearm-related suicide rate.

- fips. FIPS code (integer).
- votes\_dem\_2016. Provisional count of Democratic votes in the 2016 Presidential election.
- votes\_gop\_2016. Provisional count of Republican votes in the 2016 Presidential election.
- total\_votes\_2016. Provitional count of votes cast in the 2016 Presidential election.
- per\_dem\_2016. Democratic Presidential vote, percent.
- per\_gop\_2016. Republican Presidental vote, percent.
- diff\_2016. Difference between Democratic and Republican Presidental vote.
- votes\_dem\_2012. Provisional count of Democratic votes in the 2012 Presidential election.
- votes\_gop\_2012. Provisional count of Republican votes in the 2012 Presidential election.
- total\_votes\_2012. Provitional count of votes cast in the 2012 Presidential election.
- per\_dem\_2012. Democratic Presidential vote, percent.
- per\_gop\_2012. Republican Presidental vote, percent.
- diff\_2012. Difference between Democratic and Republican Presidental vote.
- winner. Winning candidate, 2016 Presidental Election.
- partywinner16. Winning party, 2016 Presidental Election.
- winner12. Winning candidate, 2012 Presidental Election.
- partywinner12. Winning party, 2012 Presidental Election.
- fipped. Did the area flip parties from 2012 to 2016.

#### Source

US Census Bureau, Centers for Disease Control

county\_map

US County map file

#### Description

US county map data

#### Usage

county\_map

#### Format

A data frame with 191,372 rows and 7 columns.

#### Details

- long. Longitude
- lat. Latitude
- order. Order
- hole. Hole (true/false)
- piece. Piece
- group. Group
- id. FIPS code

# Source

Eric Celeste

edu

Years of school completed by people 25 years and over in the US.

### Description

Counts of educational attainment (in thousands) from 1940 to 2016

#### Usage

edu

#### Format

A tibble with 366 rows and 11 columns.

# Details

The variables are as follows:

- age Character. Cut into 25-34, 35-54, 55>
- sex Character. Male, Female.
- year Integer.
- total Integer. Total in thousands.
- elem4 Double. 0 to 4 years of Elementary School completed.
- elem8 Double. 5 to 8 years of Elementary School completed.
- hs3 Double. 1 to 3 years of High School completed.
- hs4 Double. 4 years of High School completed.
- coll3 Double. 1 to 3 years of College completed.
- coll4 Double. 4 or more years of College completed.
- median Double. Median years of education.

edu

election

#### Source

US Census Bureau

election

# US Presidential Election 2016, State-level results

#### Description

State-level vote totals and shares for the 2016 US Presidential election. The variables are as follows:

- state. State name.
- st. State abbreviation.
- fips. State FIPS code
- total\_vote. Total votes cast.
- vote\_margin. Winner's vote margin
- winner. Winning candidate.
- party. Winning party.
- pct\_margin. Winner's percentage margin (of total vote)
- r\_points. Percentage point difference between Trump share and Clinton
- d\_points. Percentage point difference between Clinton share and Trump
- pct\_clinton. Clinton vote share (
- pct\_trump. Trump vote share (
- pct\_johnson. Johnson vote share (
- pct\_other. Other vote share (
- clinton\_vote. Clinton vote total
- trump\_vote. Trump vote total
- johnson\_vote. Johnson vote total
- other\_vote. Other vote total
- ev\_dem. Electoral votes for Clinton
- ev\_rep. Electoral votes for Trump
- ev\_oth. Electoral votes for Other
- census. Census region.

#### Usage

election

# Format

A (tibble) data frame with 51 rows and 22 variables.

#### Source

Vote data from Dave Leip, US Election Atlas, http://uselectionatlas.org.

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elections\_historic US Presidential Election vote shares

#### Description

A dataset of US presidential elections from 1824 to 2016, with information on the winner, runner up, and various measures of vote share. Data for 2016 are provisional as of early December 2016. The variables are as follows:

#### Usage

elections\_historic

#### Format

A (tibble) data frame with 237 rows and 21 variables.

#### Details

- election. Number of the election counting from the first US presidential election. 1824 is the 10th election.
- year. Year.
- winner. Full name of winner.
- win\_party. Party affiliation of winner.
- ec\_pct. Winner's share of electoral college vote. (Range is 0 to 1.)
- popular\_pct. Winner's share of popular vote. (Range is 0 to 1.)
- popular\_margin. Winner's point margin in the popular vote. Can be positive or negative.
- votes. Total votes cast in the election.
- margin. Winner's vote margin in the popular vote.
- runner\_up. Runner up candidate.
- ru\_part. Party affiliation of runner up candidate.
- turnout\_pct. Voter turnout as a proportion of eligible voters. (Rate is 0 to 1.)
- winner\_lname Last name of winner.
- winner\_label Winner's last name and election year.
- ru\_lastname. Runner up's last name.
- ru\_label. Runner up's last name and election year.
- two\_term. Is this a two term presidency? (TRUE/FALSE.) Note that F.D. Roosevelt was elected four times.
- ec\_votes. Electoral college votes cast for winner.
- ec\_denom. Total number of electoral college votes.

#### Source

https://en.wikipedia.org/wiki/List\_of\_United\_States\_presidential\_elections\_by\_popular\_vote\_margin.

fredts

#### Description

Two time series of financial data from FRED, the \_i means indexed to 100 in the base observation.

# Usage

fredts

# Format

A data frame with 5 columns and 357 rows.

#### Source

FRED data.

freq\_tab

Generate a tidy n-way frequency table

# Description

Generate a tidy n-way frequency table

# Usage

freq\_tab(df, ...)

### Arguments

df	tibble or data frame (implicit within pipline)
	grouping, as with group_by()

# Details

Tidyverse, pipeline, and dplyr-friendly frequency tables

# Value

A tibble with the grouping variables, the N ('n') per group, and the proportion ('prop') of each group, calculated with respect to the outermost grouping variable.

# Author(s)

Kieran Healy

#### gss\_lon

#### Examples

mtcars %>% freq\_tab(vs, gear, carb)

gss\_lon

General Social Survey data, 1972-2016

#### Description

A dataset containing an extract from the General Social Survey. See http://gss.norc.org/Get-Documentation for full documentation of the variables. This data contains the same variables as 'gss\_sm', but for all available years from 1972-2016.

# Usage

gss\_lon

# Format

A data frame with 62,366 rows and 26 variables.

#### Details

- year. gss year for this respondent.
- id. respondent id number.
- ballot. ballot used for interview.
- age. age of respondent.
- degree. Rs highest degree.
- race. race of respondent.
- sex. respondent's sex.
- siblings. Number of brothers and sisters (recoded from SIBS).
- kids. Number of children (recoded from CHILDS).
- bigregion. region of interview (recoded from REGION).
- income16. total family income.
- religion. rs religious preference (recoded from RELIGION)
- marital. marital status.
- padeg. fathers highest degree.
- madeg. mothers highest degree.
- partyid. political party affiliation.
- polviews. think of self as liberal or conservative.
- happy. general happiness.

- partners\_rc. how many sex partners r had in last year. (Recoded from PARTNERS)
- grass. should marijuana be made legal.
- · zodiac. respondents astrological sign.
- pres12. R's stated vote in the 2012 Presidential election
- wtssall. weight variable.
- vpsu. Sampling unit
- vstrat. Stratification unit

#### Source

National Opinion Research Center, http://gss.norc.org.

gss\_sib

General Social Survey data, 1972-2016

#### Description

A dataset containing an extract from the General Social Survey. See http://gss.norc.org/Get-Documentation for full documentation of the variables. This data contains seven variables from 'gss\_lon' with all NA values omitted.

#### Usage

gss\_sib

# Format

A data frame with 60,423 rows and 7 variables.

#### Details

- year. gss year for this respondent.
- id. respondent id number.
- age. age of respondent.
- race. race of respondent.
- sex. respondent's sex.
- siblings. Number of brothers and sisters (recoded from SIBS).
- kids. Number of children (recoded from CHILDS).

#### Source

National Opinion Research Center, http://gss.norc.org.

gss\_sm

#### Description

A dataset containing an extract from the 2016 General Social Survey. See http://gss.norc.org/Get-Documentation for full documentation of the variables.

#### Usage

gss\_sm

# Format

A data frame with 2538 rows and 26 variables.

# Details

- year. gss year for this respondent.
- id. respondent id number.
- ballot. ballot used for interview.
- age. age of respondent.
- childs. number of children.
- sibs. number of brothers and sisters.
- degree. Rs highest degree.
- race. race of respondent.
- sex. respondent's sex.
- region. region of interview.
- income16. total family income.
- relig. rs religious preference.
- marital. marital status.
- padeg. fathers highest degree.
- madeg. mothers highest degree.
- partyid. political party affiliation.
- polviews. think of self as liberal or conservative.
- happy. general happiness.
- partners. how many sex partners r had in last year.
- grass. should marijuana be made legal.
- zodiac. respondents astrological sign.
- pres12. raw variable for whether the Respondent voted for Obama. Recoded to obama in this dataset.

- wtssall. weight variable.
- income\_rc. Recoded income variable.
- agegrp. Age variable recoded into age categories
- ageq. Age recoded into quartiles.
- · siblings. Top-coded sibs variable.
- kids. Top-coded childs variable.
- bigregion. Region variable (Census divisions) recoded to four Census regions.
- religion. relig variable recoded to six categories.
- partners\_rc. partners variable recoded to five categories.
- obama. Respondent says the voted for Obama in 2012. 1 = yes; 0 = all other non-design options (Romney, other candidate, did not vote, refused, etc.)

#### Source

National Opinion Research Center, http://gss.norc.org.

int\_to\_year int\_to\_year

#### Description

Convert an integer to a date.

#### Usage

```
int_to_year(x, month = "06", day = "15")
```

#### Arguments

х	An integer or vector integers.
month	The month to be added to the year. Months 1 to 9 should be given as character strings, i.e. "01", "02", etc, and not 1 or 20, etc.
day	The day to be added to the year. Days should be given as character strings, i.e., "01" or "02", etc, and not 1 or 2, etc.

# Value

A vector of dates where the input integer forms the year component. The day and month components added will by default be the 15th of June, so that tick marks will appear in the middle of the series on plots. For input, only years 0:9999 are accepted.

#### Author(s)

Kieran Healy

# lawschools

# Examples

```
int_to_year(1960)
class(int_to_year(1960))
int_to_year(1960:1965)
int_to_year(1990, month = "01", day = "30")
```

lawschools

US Law School Enrollments 1963-2015

# Description

Annual enrollments in US Law Schools.

#### Usage

lawschools

#### Format

A tibble with 53 rows and 11 columns.

#### Details

The variables are as follows:

- ay. Academic year. character.
- year. Year. integer.
- n\_schools. Number of law schools. integer.
- fy\_enrollment. First year enrollment. integer.
- fy\_male. First year enrollment, men. integer.
- fy\_female. First year enrollment, women. integer.
- jd\_total. Total JD enrollment. integer.
- jd\_male. Total JD enrollment, men. integer.
- jd\_female. Total JD enrollment, women. integer.
- tot\_enrolled. Total enrolled. integer.
- jd\_llb\_awarded. JD/LLB degrees awarded. integer.

# Source

American Bar Association

lay\_out

#### Description

Arrange ggplot2 plots in an arbitrary grid

#### Usage

lay\_out(...)

#### Arguments

... A series lists of of ggplot objects

# Details

The function takes arguments of the form 'list(plot, row(s), column(s))' where 'plot' is a ggplot2 plot object, and the rows and columns identify an area of the grid that you want that plot object to occupy. See http://stackoverflow.com/questions/18427455/multiple-ggplots-of-different-sizes

#### Value

A grid of ggplot2 plots

# Author(s)

Extracted from the [wq] package

#### Examples

```
library(ggplot2)
p1 <- qplot(x=wt,y=mpg,geom="point",main="Scatterplot of wt vs.
    mpg", data=mtcars)
p2 <- qplot(x=wt,y=disp,geom="point",main="Scatterplot of wt vs
    disp", data=mtcars)
p3 <- qplot(wt,data=mtcars)
lay_out(list(p1, 1:2, 1:4),
    list(p2, 3:4, 1:2),
    list(p3, 3:4, 3:4))</pre>
```

maunaloa

#### Description

A subset of the co2 data in base R's [datasets] package, in a ggplot2-friendly format.

# Usage

maunaloa

# Format

A data frame with 4 columns and 271 rows.

#### Source

R base datasets; Cleveland (1993).

oecd\_le

Life Expectancy in the OECD, 1960-2015.

# Description

Life expectancy data for individual countries.

# Usage

oecd\_le

# Format

A tibble with 1,746 rows and 4 columns.

# Details

The variables are as follows:

- country. Country. (Character)
- year. Year. (Integer.)
- lifeexp. Life Expectancy at Birth, measured in years.
- is\_usa. Indicator for USA or Other country.

# Source

OECD

oecd\_sum

#### Description

Life expectancy data summary table.

#### Usage

oecd\_sum

#### Format

A tibble with 57 rows and 5 columns.

#### Details

The variables are as follows:

- year. Year. (Integer.)
- other. Life Expectancy at birth in OECD countries excluding the USA. Measured in years.
- usa. Life Expectancy at birth in the USA. Measured in years.
- diff. Difference between usa and other.
- hi\_lo. Is usa above or below the oecd average?

#### Source

OECD

opiates

Opiate-Related Deaths in the United States, 1999-2014

#### Description

State-level data on optiate related deaths in the US, from the CDC Wonder database. Query details: Dataset is Multiple causes of death, 1999-2014; 2006 Urbanization; Autopsy, Gender, Place of Death, States, 10-year age groups, and Hisipanic Origin, Weekday, Year/Month set to ALL. Standard Population 2000 US Std Population. Default intercensal populations for years 2001-2009 except Infant age groups. Rates per 100,000 population. MCD ICD-10 Codes selected: T40.0 (Opium), T40.1 (Heroin), T40.2 (Other opioids), T40.3 (Methadone), T40.4 (Other synthetic narcotics), T40.6 (Other and unspecified narcotics). UCD - ICD-10 Codes selected: X40-X44, X60-X64, X85, Y10-Y14.

#### Usage

opiates

# organdata

# Format

A tibble with 800 rows and 10 columns.

# Details

The variables are as follows:

- year. Year
- state. State name.
- fips. State FIPS code.
- deaths. Number of opiate-related deaths.
- population. Population.
- crude. Crude death rate.
- adjusted. Adjusted death rate.
- adjusted.se. Standard error of Adjusted death rate.
- region. Census region. (Stored as an ordered factor.)
- abbr. Abbreviated state name.
- division\_name. Census Division. (Character.)

#### Source

Centers for Disease Control CDC WONDER data

organdata

Organ donation in the OECD

#### Description

A dataset containing data on rates of organ donation for seventeen OECD countries between 1991 and 2002. The variables are as follows:

# Usage

organdata

#### Format

A (tibble) data frame with 237 rows and 21 variables.

#### Details

- country. Country name.
- year. Year.
- donors. Organ Donation rate per million population.
- pop. Population in thousands.
- pop\_dens. Population density per square mile.
- gdp. Gross Domestic Product in thousands of PPP dollars.
- gdp\_lag. Lagged Gross Domestic Product in thousands of PPP dollars.
- health. Health spending, thousands of PPP dollars per capita.
- health\_lag Lagged health spending, thousands of PPP dollars per capita.
- pubhealth. Public health spending as a percentage of total expenditure.
- roads. Road accident fatalities per 100,000 population.
- cerebvas. Cerebrovascular deaths per 100,000 population (rounded).
- assault. Assault deaths per 100,000 population (rounded).
- external. Deaths due to external causes per 100,000 population.
- txp\_pop. Transplant programs per million population.
- world. Welfare state world (Esping Andersen.)
- opt. Opt-in policy or Opt-out policy.
- consent\_law. Consent law, informed or presumed.
- consent\_practice. Consent practice, informed or presumed.
- consistent. Law consistent with practice, yes or no.
- ccode. Abbreviated country code.

#### Source

Macro-economic and spending data: OECD. Other data: Kieran Healy.

prefix\_replace prefix\_replace

#### Description

Replace series of characters (usually variable names) at the beginning of a character vector.

#### Usage

```
prefix_replace(var_names, prefixes, replacements, toTitle = TRUE, ...)
```

#### prefix\_strip

#### Arguments

var_names	A character vector, usually variable names
prefixes	A character vector, usually variable prefixes
replacements	A character vector of replacements for the 'prefixes', in the same order as them.
toTitle	Convert results to Title Case? Defaults to TRUE.
	Other arguments to 'gsub'

# Details

Takes a character vector (usually vector of variable names from a summarized or tidied model object), along with a vector of character terms (usually the prefix of a dummy or categorical variable added by R when creating model terms) and strips the latter away from the former. Useful for quickly cleaning variable names for a plot.

# Value

A character vector with 'prefixes' terms in 'var\_names' replaced with the content of the 'replacement' terms.

#### Author(s)

Kieran Healy

#### Examples

```
prefix_replace(iris$Species, c("set", "ver", "vir"), c("sat",
    "ber", "bar"))
```

prefix\_strip prefix\_strip

#### Description

Strip a series of characters from the beginning of a character vector.

#### Usage

```
prefix_strip(var_string, prefixes, toTitle = TRUE, ...)
```

# Arguments

var_string	A character vector, usually variable names
prefixes	A character vector, usually variable prefixes
toTitle	Convert results to Title Case? Defaults to TRUE.
	Other arguments to 'gsub'

# Details

Takes a character vector (usually vector of variable names from a summarized or tidied model object), along with a vector of character terms (usually the prefix of a dummy or categorical variable added by R when creating model terms) and strips the latter away from the former. Useful for quickly cleaning variable names for a plot.

# Value

A character vector with 'prefixes' terms stripped from the beginning of 'var\_name' terms.

#### Author(s)

Kieran Healy

# Examples

prefix\_strip(iris\$Species, c("set", "v"))

preg

An untidy table of data

# Description

A table of data from Wickham (2014).

#### Usage

preg

# Format

A tbl\_df with 3 rows and 3 columns.

# Source

Hadley Wickham (2014).

preg2

# Description

A second table of data from Wickham (2014).

# Usage

preg2

# Format

An object of class \codetbl\_df (inherits from \codetbl, \codedata.frame) with 2 rows and 4 columns.

#### Source

Hadley Wickham (2014).

round\_df

round\_df

# Description

Round numeric columns of a data frame or tibble

# Usage

round\_df(data, dig = 2)

# Arguments

data	A data frame or tibble
dig	The number of digits to round to

# Details

Takes a data frame or tibble as input, rounds the numeric columns to the specified number of digits.

# Value

An object of the same class as 'data', with the numeric columns rounded off to 'dig'

# Author(s)

Kieran Healy

# Examples

```
head(round_df(iris, 0))
```

setup\_course\_notes setup\_course\_notes

# Description

Copy and expand course notes to the desktop

#### Usage

```
setup_course_notes(
  folder,
  zipfile = "dataviz_course_notes.zip",
  packet = "dataviz_course_notes"
)
```

#### Arguments

folder	The destination to copy to within the user's home. This must be supplied by the
	user.
zipfile	The name of the zipped course materials file in the socviz library.
packet	The name of the course packet folder to be created

# Details

Transfers a zip file containing course materials from the socviz library to the Desktop.

# Value

The 'zipfile' is copied to 'folder' and its contents expanded into a directory, the 'packet'.

# Author(s)

Kieran Healy

# Examples

setup\_course\_notes()

26

studebt

# Description

Outstanding student debts in 2016 across 8 income categories, by percent of all borrowers and percent of all balances.

# Usage

studebt

# Format

A tibble with 16 rows and 4 columns.

#### Source

Federal Reserve Bank of New York

titanic

A table of survival rates from the Titanic

# Description

A small table of survival rates from the Titanic, by sex

# Usage

titanic

# Format

A data frame with four rows and four columns.

#### Source

Titanic data

tw\_tab

# Description

Quickly make a two-way table of proportions (percentages)

#### Usage

tw\_tab(x, y, margin = NULL, digs = 1, dnn = NULL, ...)

#### Arguments

х	Row variable
У	Column variable
margin	See 'prop.table'. Default is joint distribution (all cells sum to 100), 1 for row margins (rows sum to 1), 2 for column margins (columns sum to 1)
digs	Number of digits to round percentages to. Defaults to 1.
dnn	See 'table'. the names to be given to the dimensions in the result (the dimnames names). Defaults to NULL for none.
	Other arguments to be passed to 'table'.

# Details

A wrapper for 'table' and 'prop.table' with the margin labels set by default to NULL and the cells rounded to percents at 1 decimal place.

#### Value

A contingency table of percentage values.

#### Author(s)

Kieran Healy

# Examples

```
with(gss_sm, tw_tab(bigregion, religion, useNA = "ifany", digs = 1))
with(gss_sm, tw_tab(bigregion, religion, margin = 2, useNA =
    "ifany", digs = 1))
```

yahoo

# Description

Data on Revenue and Employees at Yahoo before and during Marissa Mayer's tenure as CEO.

# Usage

yahoo

# Format

A tibble with 4 columns and 12 rows.

# Source

QZ.com

%nin%

%nin%

# Description

Convenience 'not-in' operator

#### Usage

x %nin% y

# Arguments

Х	vector of items
У	vector of all values

# Details

Complement of the built-in operator %in%. Returns the elements of x that are not in y.

# Value

logical vecotor of items in x not in y

# Author(s)

Kieran Healy

%nin%

# Examples

```
fruit <- c("apples", "oranges", "banana")
"apples" %nin% fruit
"pears" %nin% fruit</pre>
```

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