Package ‘ggbump’

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Type Package

Title Bump Chart and Sigmoid Curves

Version 0.1.0

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Description A geom for ggplot to create bump plots. Can be good to use for showing rank over time.

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Encoding UTF-8

LazyData true

Imports ggplot2, dplyr, purrr, tidyr

RoxygenNote 7.1.0

Suggests testthat (>= 2.1.0)

NeedsCompilation no

Repository CRAN

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**geom_bump**

**Description**

**geom_bump**

Creates a ggplot that makes a smooth rank over time. To change the ‘smooth’ argument you need to put it outside of the ‘aes’ of the geom. Uses the x and y aesthetics.

**Usage**

```r
geom_bump(
  mapping = NULL,
  data = NULL,
  geom = "line",
  position = "identity",
  na.rm = FALSE,
  show.legend = NA,
  smooth = 8,
  direction = "x",
  inherit.aes = TRUE,
  ...
)
```

**Arguments**

- `mapping`: provide your own mapping, both x and y need to be numeric.
- `data`: provide your own data
- `geom`: change geom
- `position`: change position
- `na.rm`: remove missing values
- `show.legend`: show legend in plot
- `smooth`: how much smooth should the curve have? More means steeper curve.
- `direction`: the character x or y depending of smoothing direction
- `inherit.aes`: should the geom inherits aesthetics
- `...`: other arguments to be passed to the geom

**Value**

ggplot layer
Examples

library(ggplot2)
df <- data.frame(country = c(
    "India", "India", "India",
    "Sweden", "Sweden", "Sweden",
    "Germany", "Germany", "Germany",
    "Finland", "Finland", "Finland"),
year = c(2011, 2012, 2013,
    2011, 2012, 2013,
    2011, 2012, 2013,
    2011, 2012, 2013),
rank = c(4, 2, 2, 3, 1, 4, 2, 3, 1, 1, 4, 3))

ggplot(df, aes(year, rank, color = country)) +
ggplot(df, aes(year, rank, color = country)) +
  geom_point(size = 10) +
  geom_bump(size = 2)

geom_sigmoid

geom_sigmoid Creates a ggplot that makes a smooth rank over time. To change the ‘smooth’ argument you need to put it outside of the ‘aes’ of the geom. Uses the x, xend, y and yend aesthetics. Make sure each sigmoid curve is its own group.

Description

geom_sigmoid

Creates a ggplot that makes a smooth rank over time. To change the ‘smooth’ argument you need to put it outside of the ‘aes’ of the geom. Uses the x, xend, y and yend aesthetics. Make sure each sigmoid curve is its own group.

Usage

geom_sigmoid(
    mapping = NULL,
    data = NULL,
    geom = "line",
    position = "identity",
    na.rm = FALSE,
    show.legend = NA,
    smooth = 8,
    direction = "x",
    inherit.aes = TRUE,
    ...)
)
Arguments

- mapping: provide your own mapping. Both x, xend, y and yend need to be numeric.
- data: provide your own data
- geom: change geom
- position: change position
- na.rm: remove missing values
- show.legend: show legend in plot
- smooth: how much smooth should the curve have? More means steeper curve.
- direction: the character x or y depending on smoothing direction
- inherit.aes: should the geom inherit aesthetics
- ...: other arguments to be passed to the geom

Value

A ggplot layer

Examples

```r
library(ggplot2)

# create a dataframe
df <- data.frame(x = 1:6,
                 y = 5:10,
                 xend = 7,
                 yend = -3:2)

# plot the data using the rank_sigmoid function
ggplot(df, aes(x = x, xend = xend, y = y, yend = yend, color = factor(x))) +
geom_sigmoid()
```

Description

`rank_sigmoid` creates a longer dataframe with coordinates for a smoothed line.

Usage

`rank_sigmoid(x, y, smooth = 8, direction = "x")`
sigmoid

Arguments

`x` vector
`y` vector
`smooth` smooth parameter. Higher means less smoothing
`direction` the character `x` or `y` depending of smoothing direction

Value

a data frame

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sigmoid

`sigmoid` creates a longer dataframe with coordinates for a smoothed line.

Description

sigmoid

Creates a longer dataframe with coordinates for a smoothed line.

Usage

`sigmoid(x_from, x_to, y_from, y_to, smooth = 5, n = 100, direction = "x")`

Arguments

`x_from` start x value
`x_to` end x value
`y_from` start y value
`y_to` end y value
`smooth` smooth parameter. Higher means less smoothing
`n` number of point that should be smoothed
`direction` the character `x` or `y` depending on direction of smoothing

Value

a data frame
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