Package ‘ggstream’

October 13, 2022

Title Create Streamplots in 'ggplot2'
Version 0.1.0
Description Make smoothed stacked area charts in 'ggplot2'. Stream plots are useful to show magnitude trends over time.
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Imports ggplot2, purrr, dplyr, stats, magrittr, tidyr, forcats
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blockbusters

**Description**


**Usage**

blockbusters

**Format**

A data frame with 430 rows and 4 variables:

- **year** release year of blockbuster
- **genre** genre of blockbuster title
- **box_office** Sum of box office per genre and year, billion real dollars

**Source**

https://www.kaggle.com/narmelan/top-ten-blockbusters-20191977

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**geom_stream**

**Description**

geom_stream

gem to create stream plots

**Usage**

geom_stream(
    mapping = NULL,
    data = NULL,
    geom = "polygon",
    position = "identity",
    show.legend = NA,
    inherit.aes = TRUE,
    na.rm = TRUE,
    bw = 0.75,
    extra_span = 0.01,
    n_grid = 1000,
)
method = c("new_wiggle"),
center_fun = NULL,
type = c("mirror", "ridge", "proportional"),
true_range = c("both", "min_x", "max_x", "none"),
sorting = c("none", "onset", "inside_out"),
...)

Arguments

mapping provide you own mapping. both x and y need to be numeric.
data provide your own data
geom change geom
position change position
show.legend show legend in plot
inherit.aes should the geom inherits aesthetics
na.rm remove missing values
bw bandwidth of kernel density estimation
extra_span How many extra range should be used in estimation? Percent of x range added to min and max.
n_grid number of x points that should be calculated. The higher the more smooth plot.
method Only 'new wiggle' is implemented so far.
center_fun a function that returns the y center for each possible x in range of x.
type one of 'mirror' which stacks symmetrically around the x axis, or 'ridge' which stacks from the x-axis, or 'proportional'
true_range should the true data range be used or the estimation range?
sorting Should the groups be sorted. Either the default 'none', 'onset' or 'inside_out'
...
other arguments to be passed to the geom

Value

a 'ggplot' layer

Examples

library(ggplot2)
set.seed(123)
df <- data.frame(x = rep(1:10, 3),
y = rpois(30, 2),
    group = sort(rep(c("A", "B", "C"), 10)))
ggplot(df, aes(x, y, fill = group, label = group)) +
  geom_stream()
Description

**geom_stream_label**

geom to create labels to a geom_stream plot

Usage

```r
geom_stream_label(
  mapping = NULL,
  data = NULL,
  geom = "text",
  position = "identity",
  show.legend = NA,
  inherit.aes = TRUE,
  na.rm = TRUE,
  bw = 0.75,
  extra_span = 0.01,
  n_grid = 100,
  method = c("new_wiggle"),
  center_fun = NULL,
  type = c("mirror", "ridge", "proportional"),
  true_range = c("both", "min_x", "max_x", "none"),
  sorting = c("none", "onset", "inside_out"),
  ...
)
```

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
- **show.legend**: show legend in plot
- **inherit.aes**: should the geom inherits aesthetics
- **na.rm**: remove missing values
- **bw**: bandwidth of kernel density estimation
- **extra_span**: How many extra range should be used in estimation? Percent of x range added to min and max.
- **n_grid**: number of x points that should be calculated. The higher the more smooth plot.
- **method**: Only 'new wiggle' is implemented so far.
**geom_stream_label**

- **center_fun**: a function that returns the y center for each possible x in range of x.
- **type**: one of 'mirror' which stacks symmetrically around the x axis, or 'ridge' which stacks from the x-axis, or 'proportional'.
- **true_range**: should the true data range be used or the estimation range?
- **sorting**: Should the groups be sorted. Either the default 'none', 'onset' or 'inside_out'
- **...**: other arguments to be passed to the geom

**Value**

a 'ggplot' layer

**Examples**

```r
library(ggplot2)
set.seed(123)
df <- data.frame(x = rep(1:10, 3),
                 y = rpois(30, 2),
                 group = sort(rep(c("A", "B", "C"), 10)))
ggplot(df, aes(x, y, fill = group, label = group)) +
  geom_stream() +
  geom_stream_label(n_grid = 100)
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