

Package ‘vizdraws’

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Title Visualize Draws from the Prior and Posterior Distributions

Version 1.1

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Description Interactive visualization for Bayesian prior and posterior distributions.
When both distributions are provided the animation shows a transition from prior to posterior. Finally, the animation splits the distribution using the provided 'breaks' into bars that show the probability for each region.
If no 'breaks' are provided it will use zero by default.

License GPL-3

Encoding UTF-8

LazyData true

URL <https://github.com/ignacio82/vizdraws/>,
<https://vizdraws.martinez.fyi/>

Imports dplyr, tidyr, glue, htmlwidgets, magrittr, stats, stringr

RoxygenNote 7.1.1

Suggests knitr, rmarkdown

VignetteBuilder knitr

NeedsCompilation no

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 vizdraws

vizdraws

Description

vizdraws

Usage

```

vizdraws(
  prior = NULL,
  posterior = NULL,
  MME = 0,
  threshold = NULL,
  units = NULL,
  quantity = FALSE,
  tense = c("future", "past"),
  xlab = NULL,
  breaks = NULL,
  break_names = NULL,
  colors = NULL,
  width = NULL,
  height = NULL,
  xlim = NULL,
  font_scale = 1,
  display_mode_name = FALSE,
  title = "",
  stop_trans = FALSE,
  percentage = FALSE,
  elementId = NULL
)

```

Arguments

| | |
|-----------|--|
| prior | prior distribution or draws from it. Currently ‘Normal’, ‘uniform’, ‘beta’, and ‘gamma’ are supported. This is an optional parameter but either this or posterior should be provided |
| posterior | draws from the posterior distribution. This is an optional parameter but either this or prior should be provided |
| MME | minimum meaningful effect. If not provided MME is set to zero |
| threshold | if the probability is greater than this threshold, you would feel comfortable making a decision |
| units | optional argument to specify the units of x. For example, dollars or applications |
| quantity | defaults to FALSE. When set to true text will change to reflect that you are predicting a quantity rather than a treatment effect |

| | |
|-------------------|--|
| tense | either "future" or "past". This is the tense that it will be use in the description if quantity is set to TRUE. NULL |
| xlab | defaults to NULL |
| breaks | defaults to NULL |
| break_names | defaults to NULL |
| colors | colors for the left, middle, and right areas. The defaults are c("#e41a1c", "#377eb8", "#4daf4a") |
| width | width for shiny |
| height | height for shiny |
| xlim | defaults to NULL |
| font_scale | defaults to 1 |
| display_mode_name | defaults to FALSE |
| title | defaults to ' ' |
| stop_trans | defaults to FALSE. When set to true, initial transition stops at posterior density. |
| percentage | defaults to FALSE. When set to true, the x axis tick format will be set to percentage. |
| elementId | Use an explicit element ID for the widget (rather than an automatically generated one).elementID for shiny |

Value

A HTML widget object

Examples

```
if(interactive()){
  set.seed(9782)
  library(vizdraws)
  vizdraws(prior= rnorm(100000))
}
```

vizdraws-shiny

Shiny bindings for vizdraws

Description

Output and render functions for using vizdraws within Shiny applications and interactive Rmd documents.

Usage

```
vizdrawsOutput(outputId, width = "100%", height = "100%")
```

```
rendervizdraws(expr, env = parent.frame(), quoted = FALSE)
```

Arguments

| | |
|---------------|--|
| outputId | output variable to read from |
| width, height | Must be a valid CSS unit (like '100%', '400px', 'auto') or a number, which will be coerced to a string and have 'px' appended. |
| expr | An expression that generates a vizdraws |
| env | The environment in which to evaluate expr. |
| quoted | Is expr a quoted expression (with quote())? This is useful if you want to save an expression in a variable. |

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