Package ‘vizdraws’

April 28, 2020

Title Visualize Draws from the Prior and Posterior Distributions
Version 1.0.0
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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 providers it will use zero by default.
License GPL-3
Encoding UTF-8
LazyData true
URL http://github.com/ignacio82/vizdraws,
    http://ignacio82.github.io/vizdraws
Imports dplyr, tidyr, glue, htmlwidgets, magrittr, stats, stringr
RoxygenNote 7.0.2
Suggests knitr, rmarkdown
VignetteBuilder knitr
NeedsCompilation no
Author Ignacio Martinez [aut, cre],
    Linus Marco [aut],
    Dan Thal [aut]
Maintainer Ignacio Martinez <ignacio@protonmail.com>
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Description

vizdraws

Usage

vizdraws(
    prior = NULL,
    posterior = NULL,
    MME = 0,
    threshold = NULL,
    units = NULL,
    quantity = FALSE,
    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,
    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

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.

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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