Package ‘slickR’

December 16, 2020

Title Create Interactive Carousels with the 'JavaScript' 'Slick' Library

Version 0.5.0

Date 2020-12-10

Description Create and customize interactive carousels using the 'Slick' 'JavaScript' library and the 'htmlwidgets' package. The carousels can contain plots produced in R, images, 'iframes', videos and other 'htmlwidgets'. These carousels can be created directly from the R console, and viewed in the 'RStudio' internal viewer, in 'Shiny' apps and R Markdown documents.

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URL https://github.com/yonicd/slickR

BugReports https://github.com/yonicd/slickR/issues

Depends R (>= 3.6.0)

Imports htmltools,utils,tools,lifecycle,stats,xml2,base64enc/htmlwidgets

Suggests jsonlite,
    knitr,
    pdftools,
    rmarkdown,
    svglite,
    leaflet,
    testthat,
    covr

VignetteBuilder knitr

RdMacros lifecycle

Encoding UTF-8

LazyData true

Roxygen list(markdown = TRUE)

RoxygenNote 7.1.1
R topics documented:

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**getHelp**

**getHelp Deprecated**

**Description**

return rd help file as html

**Usage**

`getHelp(fn, pkg)`

**Arguments**

- `fn` character of function name
- `pkg` name of package that contains `fn`

**Details**

This function has been moved to the iframes vignette

**Value**

character
### nba_player_logo

**Description**

NBA player logo URI

**Usage**

nba_player_logo

**Format**

A data frame with 150 rows and 4 variables:

- team character, Team name
- position factor, Position of the Player
- name character, Player Name
- uri character, Player Headshot URI
- player_home character, Player Homepage URI

**Details**

Logos harvested from http://www.espnn.com/nba/depth

**See Also**

Other data: nba_team_logo

---

### nba_team_logo

**Description**

NBA team logo URI

**Usage**

nba_team_logo

**Format**

A data frame with 30 rows and 2 variables:

- team character, Team Name
- uri character, Team logo URI

**Details**

Logos harvested from https://i.cdn.turner.com/nba/element/img/4.0/global/logos/512x512/bg_white/svg/team_short_name.svg
settings

**See Also**

Other data: `nba_player_logo`

---

**settings**

*Modify components of slick settings*

**Description**

Customize non-data components of the carousel.

**Usage**

```javascript
settings(
  accessibility,
  adaptiveHeight,
  autoplay,
  autoplaySpeed,
  arrows,
  asNavFor,
  appendArrows,
  appendDots,
  prevArrow,
  nextArrow,
  centerMode,
  centerPadding,
  cssEase,
  customPaging,
  dots,
  dotsClass,
  draggable,
  fade,
  focusOnSelect,
  easing,
  edgeFriction,
  infinite,
  initialSlide,
  lazyLoad,
  mobileFirst,
  pauseOnFocus,
  pauseOnHover,
  pauseOnDotsHover,
  respondTo,
  responsive,
  rows,
  slide,
  slidesPerRow,
  slidesToShow,
  slidesToScroll,
  speed,
  swipe,
)```
**settings**

swipeToSlide, touchMove, touchThreshold, useCSS, useTransform, variableWidth, vertical, verticalSwiping, rtl, waitForAnimate, zIndex, ...

### Arguments

<table>
<thead>
<tr>
<th>Argument</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>accessibility</td>
<td>logical</td>
<td>Enables tabbing and arrow key navigation, Default: TRUE</td>
</tr>
<tr>
<td>adaptiveHeight</td>
<td>logical</td>
<td>Enables adaptive height for single slide horizontal carousels., Default: FALSE</td>
</tr>
<tr>
<td>autoplay</td>
<td>logical</td>
<td>Enables Autoplay, Default: FALSE</td>
</tr>
<tr>
<td>autoplaySpeed</td>
<td>numeric</td>
<td>Autoplay Speed in milliseconds, Default: 3000</td>
</tr>
<tr>
<td>arrows</td>
<td>logical</td>
<td>Prev/Next Arrows, Default: TRUE</td>
</tr>
<tr>
<td>asNavFor</td>
<td>character</td>
<td>Set the slider to be the navigation of other slider (Class or ID Name), Default: null</td>
</tr>
<tr>
<td>appendArrows</td>
<td>character</td>
<td>Change where the navigation arrows are attached (Selector, htmlString, Array, Element, jQuery object), Default: $(element)</td>
</tr>
<tr>
<td>appendDots</td>
<td>character</td>
<td>Change where the navigation dots are attached (Selector, htmlString, Array, Element, jQuery object), Default: $(element)</td>
</tr>
<tr>
<td>prevArrow</td>
<td>character (html</td>
<td>jQuery selector)</td>
</tr>
<tr>
<td>nextArrow</td>
<td>character (html</td>
<td>jQuery selector)</td>
</tr>
<tr>
<td>centerMode</td>
<td>logical</td>
<td>Enables centered view with partial prev/next slides. Use with odd numbered slidesToShow counts., Default: FALSE</td>
</tr>
<tr>
<td>centerPadding</td>
<td>character</td>
<td>Side padding when in center mode (px or \ Default: '50px'</td>
</tr>
<tr>
<td>cssEase</td>
<td>character</td>
<td>CSS3 Animation Easing, Default: 'ease’</td>
</tr>
<tr>
<td>customPaging</td>
<td>function</td>
<td>Custom paging templates. See source for use example., Default: n/a</td>
</tr>
<tr>
<td>dots</td>
<td>logical</td>
<td>Show dot indicators, Default: FALSE</td>
</tr>
<tr>
<td>dotsClass</td>
<td>character</td>
<td>Class for slide indicator dots container, Default: 'slick-dots’</td>
</tr>
<tr>
<td>draggable</td>
<td>logical</td>
<td>Enable mouse dragging, Default: TRUE</td>
</tr>
<tr>
<td>fade</td>
<td>logical</td>
<td>Enable fade, Default: FALSE</td>
</tr>
<tr>
<td>focusOnSelect</td>
<td>logical</td>
<td>Enable focus on selected element (click), Default: FALSE</td>
</tr>
<tr>
<td>easing</td>
<td>character</td>
<td>Add easing for jQuery animate. Use with easing libraries or default easing methods, Default: 'linear’</td>
</tr>
<tr>
<td>edgeFriction</td>
<td>numeric</td>
<td>Resistance when swiping edges of non-infinite carousels, Default: 0.15</td>
</tr>
<tr>
<td>Setting</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>infinite</td>
<td>logical</td>
<td>Infinite loop sliding. Default: TRUE</td>
</tr>
<tr>
<td>initialSlide</td>
<td>numeric</td>
<td>Slide to start on. Default: 0</td>
</tr>
<tr>
<td>lazyLoad</td>
<td>character</td>
<td>Set lazy loading technique. Accepts 'ondemand' or 'progressive'. Default: 'ondemand'</td>
</tr>
<tr>
<td>mobileFirst</td>
<td>logical</td>
<td>Responsive settings use mobile first calculation. Default: FALSE</td>
</tr>
<tr>
<td>pauseOnFocus</td>
<td>logical</td>
<td>Pause Autoplay On Focus. Default: TRUE</td>
</tr>
<tr>
<td>pauseOnHover</td>
<td>logical</td>
<td>Pause Autoplay On Hover. Default: TRUE</td>
</tr>
<tr>
<td>slide</td>
<td>element</td>
<td>Element query to use as slide. Default: &quot;</td>
</tr>
<tr>
<td>slidesPerRow</td>
<td>numeric</td>
<td>With grid mode initialized via the rows option, this sets how many slides are in each grid row. Default: 1</td>
</tr>
<tr>
<td>slidesToShow</td>
<td>numeric</td>
<td># of slides to show. Default: 1</td>
</tr>
<tr>
<td>slidesToScroll</td>
<td>numeric</td>
<td># of slides to scroll. Default: 1</td>
</tr>
<tr>
<td>speed</td>
<td>numeric</td>
<td>Slide/Fade animation speed in milliseconds. Default: 300</td>
</tr>
<tr>
<td>swipe</td>
<td>logical</td>
<td>Enable swiping. Default: TRUE</td>
</tr>
<tr>
<td>swipeToSlide</td>
<td>logical</td>
<td>Allow users to drag or swipe directly to a slide irrespective of slidesToScroll. Default: FALSE</td>
</tr>
<tr>
<td>touchMove</td>
<td>logical</td>
<td>Enable slide motion with touch. Default: TRUE</td>
</tr>
<tr>
<td>touchThreshold</td>
<td>numeric</td>
<td>To advance slides, the user must swipe a length of (1/touchThreshold) * the width of the slider. Default: 5</td>
</tr>
<tr>
<td>useCSS</td>
<td>logical</td>
<td>Enable/Disable CSS Transitions. Default: TRUE</td>
</tr>
<tr>
<td>useTransform</td>
<td>logical</td>
<td>Enable/Disable CSS Transforms. Default: TRUE</td>
</tr>
<tr>
<td>variableWidth</td>
<td>logical</td>
<td>Variable width slides. Default: FALSE</td>
</tr>
<tr>
<td>vertical</td>
<td>logical</td>
<td>Vertical slide mode. Default: FALSE</td>
</tr>
<tr>
<td>verticalSwiping</td>
<td>logical</td>
<td>Vertical swipe mode. Default: FALSE</td>
</tr>
<tr>
<td>rtl</td>
<td>logical</td>
<td>Change the slider’s direction to become right-to-left. Default: FALSE</td>
</tr>
<tr>
<td>waitForAnimate</td>
<td>logical</td>
<td>Ignores requests to advance the slide while animating. Default: TRUE</td>
</tr>
<tr>
<td>zIndex</td>
<td>numeric</td>
<td>Set the zIndex values for slides, useful for IE9 and lower. Default: 1000</td>
</tr>
</tbody>
</table>

**Details**

To find further information on the attributes that can be used please refer to [http://kenwheeler.github.io/slick/](http://kenwheeler.github.io/slick/).
slickpdf

Value

list of class c('setting','slickR')

Examples

if(interactive()){
  slick <- slickR(obj=nba_team_logo$uri)
  slick
  # Use settings function to manipulate the slick object
  # Add dots
  slick + settings(dots = TRUE)
  # Autplay elements in the carousel
  slick + settings(autoplay = TRUE, autoplaySpeed = 1000)
}

---

Description

convert multiple pdfs or a multipage pdf to a slick carousel

Usage

slickpdf(obj, obj2 = NULL, synch = TRUE, img_format = "png", ...)

Arguments

- **obj**: character, path to pdf(s)
- **obj2**: character, path to pdf(s) to compare to obj, Default: NULL
- **synch**: boolean, if TRUE then obj and obj2 images are synchronized, Default: TRUE
- **img_format**: format of image to convert to, Default: 'png'
- **...**: arguments passed to slickR

Details

This function has been replaced with the example in the PDF vignette.

Value

slick
slickR

**slick.js image carousel htmlwidget**

**Description**

use slick.js library in R

**Usage**

```
slickR(
  obj,
  slideId = "baseDiv",
  slideType = "img",
  objLinks = NULL,
  padding = 1,
  width = "95%",
  height = NULL,
  elementId = NULL,
  slickOpts = NULL,
  synchSlides = NULL,
  dotObj = NULL
)
```

**Arguments**

- `obj` character, vector of path or url to images
- `slideId` character, id of slide, Default: 'baseDiv'
- `slideType` character, type of object to put in slide, Default: 'img'
- `objLinks` character, links to attach to images in slide, Default: NULL
- `padding` numeric, percent of width between each image in the carousel for each slider, Default: 1
- `width` character, width of htmlwidget, Default: '95%'
- `height` character, height of htmlwidget, Default: NULL
- `elementId` character, id tag of htmlwidget, Default: NULL
- `slickOpts` Deprecated
- `synchSlides` Deprecated
- `dotObj` Deprecated

**Details**

*slick.js* is an image carousel javascript library.

To find all the attributes that can be used please refer to the link.

It is possible to stack slides through the %stack% operator.

It is possible to synchronize slides through the %synch% operator.

To replace the dots with icons use the settings to define the customPaging attribute with the appropriate JS(.) function call.
The slideType accepts the type of html DOM you want to be in the slide, eg img, iframe.
The combination of slideType = 'img-lazy' and settings(lazyLoad = 'ondemand') will inform the
htmlwidget that the images are to be loaded lazily. For more information see the slickjs documentation.

Examples

```r
if(interactive()){
  slick <- slickR(obj=nba_team_logo$uri)
  slick

  # add dots to the first slick and autoplay at 1 second a slide
  slick + settings(dots = TRUE, autoplay = TRUE, autoplaySpeed = 1000)

  # working with multiple slicks
  sets <- split(
    sample(nba_team_logo$uri, size = 28, replace = FALSE),
    rep(c(1,2,3,4),each=7)
  )
  slicks <- lapply(sets,FUN = function(x,...){
    slickR(obj = x,...)
  },height = 100)
  # independent slicks
  Reduce(`/grave.Var%stack%/grave.Var`,slicks)
  # 1,2 synch stacked on 3,4 synch
  (slicks[[1]] %synch% slicks[[2]]) %stack% (slicks[[3]]%synch%slicks[[4]])
}
```

---

**slickR-shiny**

Shiny bindings for slickR

**Description**

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

**Usage**

- `slickROutput(outputId, width = "100\%", height = "400px")`

- `renderSlickR(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 slickR
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.

slick_div (Create a DOM element for slickR)

Description

Wraps an R object in slickR compatible DOM

Usage

slick_div(
  x,
  css = htmltools::css(marginLeft = "auto", marginRight = "auto"),
  type = "img",
  links = NULL
)

Arguments

x  object
css  css object, Default: htmltools::css(marginLeft='auto',marginRight='auto')
type  character, type of DOM, Default: 'img'
links  character, links to use on the input object, Default: NULL

Details

Method converts xml_document, htmlwidget, character, or list of objects to a compatible DOM

Value

list of shiny tag objects

See Also

Other html: slick_list()
**slick_list**

**Examples**

```r
# image
slick_div(nba_team_logo$uri[[1]])

# vector of images
slick_div(nba_team_logo$uri[c(1:5)])

# text
slick_div('abc', type = 'p')
```

---

**slick_list**

List of DOM elements

**Description**

Convert a list of tags into a list that slickR can render

**Usage**

```r
slick_list(...)```

**Arguments**

```r
... Elements to convert
```

**Value**

tagList

**See Also**

`tagList`, `tags`

Other html: `slick_div()`

**Examples**

```r
img1 <- htmltools::img(src = nba_player_logo$uri[[1]])
img2 <- htmltools::img(src = nba_player_logo$uri[[2]])
slick_list(img1, img2)
```
Slick pipe operators

Description
Pipe operators to combine plots by either stacking or synching multiple sliders.

Usage
\[ e1 \%synch\% e2 \]
\[ e1 \%stack\% e2 \]

Arguments
\begin{itemize}
\item \texttt{e1} slickR htmlwidget to place on top
\item \texttt{e2} slickR htmlwidget to place on bottom
\end{itemize}

Value
htmlwidget

Examples
if(interactive()){ 
  # working with multiple slicks
  sets <- split(
    sample(nba_team_logo$uri, size = 28, replace = FALSE),
    rep(c(1,2,3,4),each=7)
  )
  slicks <- lapply(sets,FUN = function(x,...){
    slickR(obj = x,...)
  },height = 100)
  # independent slicks
  Reduce('\%stack\%',slicks)
  # 1,2 synch stacked on 3,4 synch
  (slicks[[1]] \%synch\% slicks[[2]]) \%stack\% (slicks[[3]]\%synch\%slicks[[4]])
}
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