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Revendo conteúdos da última aula gráficos

RMarkdown

Live Coding

RMarkdown Métodos Quantitativos Aplicados à Ciência Política

Frederico Bertholini

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- 1 Revendo conteúdos da última aula gráficos
- 2 RMarkdown
- 3 Live Coding

Rode seus pacotes!

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Refazendo um gráfico feio

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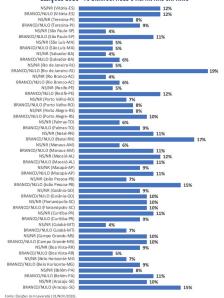
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ELEIÇÕES 2020: % BRANCO/NULO e NS/NR NAS CAPITAIS



Ficou feio mesmo

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Então bora melhorar

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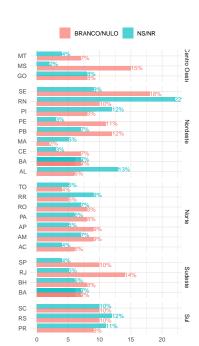
source("dados/brincando_graficos.R")

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onde estamos?

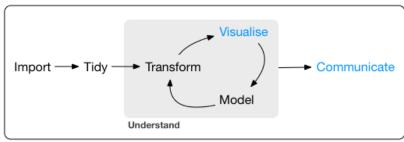
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Program

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O que é?

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- Comunicar com os tomadores de decisão,
 - que querem se concentrar nas conclusões, não no código por trás da análise.
- Colaborar com outros cientistas de dados,
 - interessados em suas conclusões e como você as alcançou (ou seja, o código).
- um caderno de laboratório moderno,
 - onde você pode anotar não apenas o que fez, mas também o que pretende.

O R Markdown integra vários pacotes R e ferramentas externas. então, use o cheatsheets:

R Markdown Cheat Sheet

R Markdown Reference Guide

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R Markdown:: cheat sheet







et cration formatted with markdown mixed with-

.rmd Structure

YAML Header
Optional section of render (e.g. pandoc)
options written as key-value pairs (YAML)

At start of file

Code Chunks

ends with

Begins with " " (r)

Between lines of ---



rmarkdowr

Knit with parameters or the params argument of render(): render("doc.Rmd", params = list(n = 1, d = as.Date("2015-01-01"))	Since to POF Kink to Word
	Kelt with Parameters

1 4.00 2.00

3 7.60 4.60

4 7.00 22.00

8.00 16.00

Workflow



- Open a new .Rmd file at File ➤ New File ➤ Markdown. Use the wizard that opens to prepopulate the file with a template
- **3** Write document by editing template
- (a) Knit document to create report; use knit button or OPreview Output in IDE window
- O Publish (optional) to web server
- 3 Examine build log in R Markdown console Use output file that is saved alone side.Rmd

render

Use rmarkdown::rende	r() to render/knit at cmd	line. Important args
input - file to render output_format		output_file output_dir

render("report.Red", subput_file - "report.html")

Interactive Documents

- Turn your report into an interactive Shiny document in 4 steps 1. Add runtime: shiny to the YAML header
- 2. Call Shiny input functions to embed input objects.
- 3. Call Shiny render functions to embed reactive output. 4. Render w rmarkdown:run or click Run Document in RStudio IDE

Embed code with knitr syntax

Insert with 'r <code>'. Results appear as text without code. Built with 'r get/kversion()' a Built with 3.2.3

CODE CHUNKS One or more lines surrounded with "" (r) and "". Place chunk options within curly braces, after r. Insert with

GLOBAL OPTIONS Set with knitr::opts_chunk\$set(), e.g.

El reporteni 🚱

ort.html 😝

IMPORTANT CHUNK OPTIONS

cache - cache results for future knits (default = FAI SF) cache.path - directory to save cached results in (default = "cache/") child - file(s) to knit and then include (default = collapse - collapse all output into single block (default = FALSE) comment - prefix for each line of results (default = "W")

dependson - chunk dependencies for caching echo - Display code in output document (default engine - code language used in chunk (default =

error - Display error messages in doc (TRUE) or stop render when errors occur (FALSE) (default = FALSE) eval - Run code in chunk (default = TRUE)

Options not listed above: R options, aniopts, autodep, background, cache.comments, cache.lazy, cache.rebuild, cache.vars, dev, dev.args, dpi, empire.opts, engine.push, fig.asp, fig.arm, fig.asp, fig.arm, fig.asp, fig.arm, fig.asp, fig.arm, fig.asp, fig.as

fig.align - 'left', 'right', or 'center' (default = fig.cap - figure caption as character string (default fig.height, fig.width - Dimensions of plots in

highlight - highlight source code (default = TRUE) include - Include chunk in doc after running default = TRUE)

results (default = 'markup') asis' - passthrough results 'hide' - do not display results 'hold' - put all results below all code

tidy - tidy code for display (default = FALSE) warning - display code warnings in document

head(cars, input\$n) Embed a complete app into your document with shiny:shinyAppDir()

output: html_document

" (r, echo = FALSE)

"How many cars?", 5)

runtime: shiny

renderTable(i

Publish on RStudio Connect to share R Markdown documents securely, schedule automatic updates, and interact with parameters in real time. www.rstudio.com/products/connect/



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R Markdown Reference Guide Learn more about R Markdown at rmarkdown rstudio.com Learn more about interactive Docs at shiny.rstudio.com/articles

1. Markdown Syntax

Syntax

Plain text End a line with two spaces to start a new paragraph. *italics* and _italics_ **bold** and __bold__ superscript^2^ --strikethrough--[link](www.rstudio.com)

strivethrough Header 1

Header 3 #### Header 4

****	# He	ader	5
****	## H	leader	
enda	sh:		
enda	sh:		

Header 1 ## Header 2





> block quote
* unordered list * item 2 * sub-item 1 * sub-item 2
1. ordered list 2. item 2 + sub-item 1

+ sub-item	2
Table Header	Second Hea
Table Cell	Cell 2
Cell 3	Cell 4

End a line with two spaces to start a new paragraph. Atalics and Atalics bold and bold supersoriof²

Becomes

Header 2

Header 3 Header 4

Header 5 Header 6 endash: emdash: elliosis:

inline equation: $A = \pi * r^2$

horizontal rule (or slide break):

block quote · unordered list Inm 2 sub-item 1 sub-item 2 1. ordered list

2. Item 2 · sub-item 1 sub-item 2 Table Header

Second Header Table Cell Cell 2 Cell 3 Cell 4

Lógica, instalação e recursos adicionais

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- Pandoc e knitr
- LaTeX

O básico

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Cabeçalho

– opções e possibilidades

Escrita

Chunks

- opções - nomes

Formatos de saída

Saídas

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Documentos estáticos

Documentos Interativos

Dashboards

Apresentações

Livros

Sites

Modelos

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Site do RMarkdown

IMPORTANTE!

Galeria para replicação

Documentos

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- HTML documents for web publishing.
- PDF documents for printing. Example Code
- Microsoft Word documents for Office workflows.
- Tufte styled documents for handouts.

Documentos Interativos

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- Combine R Markdown with htmlwidgets or the shiny package to make interactive documents
- Add interactive graphics with htmlwidgets, such as the leaflet map widget.
- Embed htmlwidgets such as dygraphs and datatables directly into your reports.
- Shiny components and htmlwidgets will work in any HTML based output, such as a file, slide show or dashboard.

Dashboards

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- Use flexdashboard to create dashboards with gauges and value boxes.
- Add interactive graphics to a dashboard with htmlwidgets.
- Organize dashboards around a storyboard.

Apresentações

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- Create pdf slides with Beamer.
- Create HTML-based slides with Slidy.
- Create HTML-slides with ioslides.
- Create HTML-based slides with reveal.js.

Livros

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O próprio Cookbook

Sites

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R Markdown makes it easy to build webpages straight from .Rmd files.

- The R Markdown website is itself built with R Markdown. Example Code.
- flexdashboard extends R Markdown to make administrative dashboards. Its website is also built from R Markdown. Example Code.
- Bookdown extends R Markdown to make books. Its website is built with R Markdown and CSS styling. Example Code.
- profvis provides profiling tools for R code, as well as a website made with R Markdown. Example Code.

Modelos

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- The JSS article template in the rticles package formats an R Markdown document to meet the style guidelines of the Journal of Statistical Software. Example Code
- The rjournal article template in the rticles package formats an R Markdown document to meet the style guidelings of the R Journal. Example Code
- The skeleton template is one of several provided in Bob Rudis' markdowntemplates package. Example Code
- Steve Miller's CV template formats an R Markdown file into a Curriculum Vitae (CV). Example Code

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Paper em pdf

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RAP - Usando bibliografia

PDAD

Relatório em html

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Compras públicas

ANIPES

Slides em html

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 ${\sf Usando}\ {\sf CSS}$

Apresentação COVID